OKA-PLANT

Oxalis crenata, Jacq. Oxalidaceae.


Native of Peru.—Perennial, but cultivated as an annual.—Stem fleshy, red, prostrate, bearing very numerous leaves, composed of three rounded triangular thick leaflets; flowers axillary, with five yellow petals striped with purple at the base; tubers swollen, long ovoid, marked with hollows and protuberances (like some kinds of Potatoes, especially the Vitelotte variety), and narrowed at the end which joins the stem; skin very smooth, and of a yellow, white, or red colour.

CULTURE.—The Oka-plant is easily propagated from the tubers, which are planted in May, in light rich soil, in rows which should not be less than 3 ft. apart, on account of the spreading growth of the stems of the plant. As it continues to grow for a long time and is very sensitive to cold, it is better, if possible, to start the tubers in a hot-bed in March, and plant them out in May, at which time they will be pretty forward. As the stems lengthen, they should be covered with light soil or compost, in order to promote the formation of new tubers, taking care to leave 6 or 8 in. of the end of the stem uncovered. The tubers do not commence to swell until rather late in the season, and are not gathered until the ends of the stems have been killed by frosty weather. In France they seldom grow as large as a hen's egg.

USES.—The tubers are highly esteemed in Peru and Bolivia, where they are largely used. Recently gathered, they have a very acid, and not very agreeable, taste. In South America they get rid of this acidity by putting tubers into woollen bags and exposing them to the action of the sun, the effect of which is that in a few days they become floury and sweet. If they are kept thus exposed for several weeks, they dry up, become wrinkled, and acquire a flavour which resembles that of dried Figs. In this condition they are known by the name "Caui." In addition to the tubers, the leaves and young shoots may be eaten as salad or as Sorrel.

Two varieties of this plant have been introduced into France, namely, the Yellow and the Red, differing from each other only in the colour of the tubers. The Yellow variety has spontaneously
produced a sub-variety, with pure white tubers, which reproduces itself exactly, but appears to be inferior to the other two kinds in vigour and quality for table use.

**OKRA, or GOMBO**

_Hibiscus esculentus, L. Malvaceæ._

French, Gombo. Italian, Ibisco. Spanish, Gombo; (American), Quimbombo.

Native of South America.—Annual.—Stem stout, erect, branching but little or not at all, from .20 in. to over 3 ft. high, according to the variety; leaves very large, five-lobed, toothed, dark green on the upper surface, slightly gray underneath, with very prominent veins; flowers solitary in the axils of the leaves, with five straw-coloured petals, brown or violet in the centre; fruit pyramidal, ending in a point, with five prominent ribs, and divided into five cells or compartments filled with rather large gray or pale green seeds, nearly spherical in shape and rough skinned. The germinating power of the latter lasts for five years.

**CULTURE.**—Like the Egg-plant and the Tomato, the Gombo requires artificial heat in the climate of Paris, while in warmer climates it may be sown and grown in the open air. The seed is usually sown in a hot-bed in February, the seedlings are pricked out into another hot-bed, and are finally planted out in May, after which the plants only require plentiful watering to attain their full growth.

**USES.**—In the Colonies the young and tender seed-vessels are very extensively used as a table vegetable. They are exceedingly mucilaginous, and when cut into thin slices are made into soups and sauces, which are highly esteemed by the Creoles. The ripe seeds also are parched and used instead of Coffee. The infusion which is obtained from
them is not inferior to that made from Chicory, Sweet Acorns, *Astragalus baticus*, and other substitutes for Coffee.

**Long-fruitied Green Okra.**—Stem short, seldom exceeding 20 in. in height; leaves very deeply cut; seed-vessels 6 to 8 in. long, slender, long, pointed, and about 1 in. in diameter. This is the kind most commonly cultivated. There is a sub-variety in which the seed-vessels are pendent.

**Dwarf Prolific Okra.**—Much grown in America, it is a small-fruitied sub-variety of the preceding one, and both early and productive.

**Round-fruitied Okra.**—Seed-vessels short and thick, being about 2 in. long, and nearly 2 in. in diameter, and blunt at the ends rather than pointed. This variety is dwarfer and earlier than the preceding kind.

**Early Sultani Okra.**—Produces a number of short, thick fruit, very like those of the preceding.

**White Velvet Okra.**—The American variety known by this name is distinguished by its fruit, which is white, long, and fairly large.

**ONION**

*Allium Cepa, L.* *Liliaceæ.*


Native of Central or Western Asia.—Biennial, sometimes perennial.—The original native country of the Onion is not known with certainty; within the last few years, however, M. Regel, jun., discovered, south of Kouldja, in Turkestan, a plant which had every appearance of being the wild form of *Allium Cepa*, and we believe the same plant has also been found on the Himalayas.

The Onion has no stem, or rather the stem is reduced to a mere plate, from which issue, on the lower side, numerous white, thick, simple roots, and on the upper side leaves, the fleshy, swollen, and overlapping bases of which form the bulb of the Onion. The form, colour, and size of the bulb are very much varied in different varieties of the plant. The free portion of the leaves is elongated, hollow, and tapering into a point at the end. The flower-stems, which are very much longer than the leaves, are erect, hollow, and swollen in the lower part for about one-third of their length. The flowers, which are white or lilac, are severally borne on very slender stalks, and are collected in a very dense spherical head on the top of the flower-stem. Sometimes, instead of flowers, a head of small bulbs is produced. This may occur exceptionally in any of the varieties, but is an invariable characteristic of the Tree Onion, which is thence named the Bulbiferous Onion. The
flowers are succeeded by capsules of an almost triangular shape, filled with black, angular, flattish seeds. The germinating power of the latter lasts for two years.

Usually, the plant, after seeding, dies and disappears entirely; but sometimes we find Onions which produce cloves as well as seeds. Such plants may be considered perennial, as well as the Potato Onion, which never seeds and is propagated by division of its bulbs.

The culture and use of the Onion date back to a very remote period of antiquity. The strong odour and flavour of all parts of the plant caused it to be valued in very early times as a seasoning, and being easily grown, man has carried it with him into almost every climate of the world. Hence a great number of varieties have resulted, the best of which have become fixed, and form the various kinds which are now in cultivation.

CULTURE.—The Onion, considered only with a view to the production of bulbs for household consumption, is generally grown as an annual plant, whether sown for a summer crop or sown in autumn. For a summer crop, the seed is sown in spring, and the crop is gathered at the end of summer or in autumn. In this case, the entire growth of the plant is completed in the course of the same year. This mode of culture is the general one in the central and northern districts of France, where Onions are grown very extensively and as a field crop. The seed is sown in the latter part of February, or in March, in good, moist, but well-drained soil, which has been well manured and well pulverised at the surface, and at the same time is somewhat firm and compact underneath. The seed, being rather small, should be only slightly covered. In gardens, Onion-beds, after being sown, are often simply strewn with leaf-mould or with grape skins from the wine-presses. When the seedlings have grown pretty strong, they are thinned out more or less, according to the size of the variety, and after that require no further attention until they are fully grown. Watering is not necessary except in unusually dry weather.

When the seed is sown in autumn, the growth of the plants is continued from one year into the next. This mode of culture is most common in districts where the winter is mild, as in the west and all through the south of France. The seed is sown from August to October, and the young plants are planted out either in the course of the same autumn or as soon as the winter is over. This way of growing Onions is not so simple as that first mentioned, but the crop is finer and earlier. It is generally practised, as we have just said, in southern districts, and it is in this way that the enormous Onions which are sent during winter to our markets from Spain, Italy, and Africa are raised. At Paris, too, it is almost the only way in which the Early White Silver-skinned Onion is grown.
This is sown in August or September, and the seedlings are generally pricked out in October (the roots and leaves being trimmed at the same time), and they are slightly sheltered during the winter when the frost is severe. The bulbs are fit for use in May. By sowing the New Queen variety in the same way, a crop could, no doubt, be obtained in April.

Sometimes the Onion is grown as a biennial—that is, its culture extends over nearly two whole years. In this case, the growth is retarded by planting out, not young seedlings, but small bulbs raised the year before by sowing very thickly in spring and growing them on like summer Onions, but without thinning them. These small bulbs, which are about as big as a Hazel-nut, easily keep through the winter, and when planted out in spring increase in size rapidly, and in a few months become as fine bulbs as those obtained from plants grown on through the winter in the usual way. This mode of culture was recommended a very long time ago by MM. Lebrun and Nouvellon, who applied it to Onions of every kind. At the present day it is generally practised, especially in the east of France, with a yellow variety, the small bulbs of which form an important article of commerce, under the name of *Mulhouse Onions*. When the bulbs of this variety are fully grown, it is very difficult to distinguish them from those of the Strasburg Onion. The Brown Portugal Onion may also be grown in the same way.

For good Onions there is always a large demand, and late in the season they fetch high prices. In nearly all market-gardens round London, Onions are grown to a large extent both as summer and winter crops. In the neighbourhood of Lea Bridge large fields are devoted to them, and from this district come large quantities of the finest produce brought to market. Great breadths of Onions are also grown at Fulham, Chiswick, Deptford, and Mitcham, the land thereabouts being light and rich and well suited for their culture. The main spring sowing, which consists usually of the Deptford and Reading varieties, is made as soon after the middle of February as the condition of the soil and weather permits. If the seed be good and is sown broadcast, nine to twelve pounds per acre are used; but if sown in lines, only eight pounds to the acre are needed. Land intended for Onions is generally roughly trenched during winter and thrown into ridges, so as to become thoroughly pulverised and sweetened by the action of the frost. During dry weather in February the ridges are levelled and the surface rendered smooth by raking and rolling, after which the seed is sown either broadcast or in drills 9 to 10 in. apart. If small pickling bulbs be desired, seed is sown broadcast at the rate of twenty pounds per acre. After sowing, the seed is raked or harrowed in, and the operation is completed by rolling the surface firm and even. After the young Onions appear above the ground, weeding and thinning are proceeded with as may be required. Broadcast sowing is considered the best
for spring-sown crops, as involving less labour; and as the bulbs, after thinning, stand at regular distances apart over the whole area, the produce per acre is considerably more than when sown in beds or lines. Seed sown in the autumn is, however, sometimes drilled on beds 4 or 5 ft. wide, these being divided by narrow alleys, which serve as walks for labourers who weed the beds and draw the crop as required for market; but this crop is also often sown broadcast.

Onion seed takes a long time to germinate, but if the ground be clean and well tilled, weeds will not appear much sooner than the Onions, or, at least, not so thickly as to choke them. As soon as the Onions have fairly come up, women or men accustomed to Onion-cleaning are set to work amongst them. These operators are furnished with short-handled 24-inch wide hoes, with which they hoe down the weeds and thin the whole crop with wonderful certainty and expedition. The field is marked off into strips for the guidance of the hoers, to each one of whom there is a space of 6 ft. given, so that were four cleaners employed the strips would each be 24 ft. wide. People accustomed to this work do not trample carelessly about; nor, indeed, can the crop be materially damaged by doing so, for the Onions that are thus prostrate to-day are nearly erect to-morrow. Each plantation is generally cleaned by this means three times during the season, the last cleaning being made about the end of June or early in July, and any large weeds that appear after that time are pulled out by the hand. Towards the end of August or early in September the Onions, being ripe, are harvested when dry. Those that are green and thick-necked are laid aside for immediate sale; but the firm and sound bulbs, particularly of the Deptford kind, are either cleaned of any loose scaly skins and spread out a few inches deep over the floor of a loft, or tied into bunches and strung in pairs over poles or pegs in a loft or shed, so that they can be marketed at any convenient season during winter and spring.

The profits on a good crop of spring-sown Onions are remunerative, although they vary in some seasons. Sometimes as much as £45 per acre is made of them by the grower, the purchaser being at the expense of harvesting the crop. At other times, however, £30 per acre is considered a good price. The Silver-skinned Onion, which is grown largely for pickling, is sown on good land, the plants being left as thickly as they come up, as the closer they are together the sooner they will cease growing in summer and the better they will ripen their bulbs. Good clean bulbs realise from 8s. to 10s. per bushel in the market. The autumn sowing of Onions is made on ground cleared of Cauliflowers, Cabbages, or other early crops, in the end of July for drawing in a young state from September onwards, but the main sowing is not made till about the middle of August. The autumn sowings are, as a rule, made in beds about 5 ft. wide, and the seeds are covered deeper than those of the spring sowings. They are not often made broadcast on fields, as they must be weeded, not hoed, in the process of cleaning; the hoeing would thin them too much. As they are only required for drawing when young they do not need to be more than one-third of the distance asunder required in the case of the summer Onions. They are weeded soon after they come up, and once,
or perhaps twice, during the winter

The weeding is done by

women in dry weather, each woman

taking with her a small round basket
to put the weeds into, rather than

throw them on the alleys. In

marketing these Onions they are

cleared off the beds in large patches,

and not by picking out the strongest

and leaving the weakest, as is gener-

ally done; and they are washed,

which makes them look white. If

a portion be intended for trans-

planting, a piece of well-prepared

rich ground is made ready for them,

rolled firmly, and lined off into rows

about 9 in. apart, and into these

lines the young plants are dabbled

about 6 in. apart. These make

large saleable bulbs early in July.

The kinds used for autumn sowings

consist of White Spanish, White

Tripoli or Lisbon. Some growers

save large quantities of Onion seed,

for which purpose well-formed bulbs

are selected and planted in spring

in rows which vary from 2 to 6 ft.
apart, Lettuce, Radishes, Spinach, or

other low-growing vegetables being

grown as intermediate crops. After

the flower-stems make their appear-

ance they are staked at intervals,

and twine or cord is strained on

either side the rows to prevent the

stems being beaten down by hail,

rain, or wind. Ordinary Onion seed

fetches from 25. to 55. per lb.,

according to the season; but the

best seed, or that from improved or

rare sorts, is more valuable. In

Hertfordshire large breadths of seed

Onions may be seen in July, and on

good deep land it is considered one

of the most profitable of crops.*

USES.—The bulbs are eaten boiled, raw, or pickled with

vinegar.

Small White Extra Early Barletta Onion.—Bulbs very

rapidly; it is, in fact, the earliest of all Onions. Sown in the spring,

it roots within two months. The roots are large enough for

Small White Early Barletta Onion. New Queen Onion (4 natural size).

pickles and even for kitchen use. The bulbs are white, small,

shaped like the White Lisbon Onion, flat on top and rather conical

at the bottom.

* Onions for Exhibition, see p. 763. Onion Fly see p. 777.
New Queen Onion.—Bulb small, very much flattened, silvery white from \(1\frac{1}{2}\) to \(1\frac{3}{4}\) in. in diameter, and from \(\frac{3}{8}\) to \(\frac{3}{4}\) of an inch thick; neck fine, soon becoming green, if the bulbs are stored in the expectation that they will keep; leaves very short, dark, slightly glaucous green, three or four, or at most five, in number when the plant is fully grown. It is not unusual to find, amongst plants sown in spring, some bulbs growing as large as walnuts, and ripening without forming more than two leaves. This variety is an exceedingly early one. If sown in March, the bulbs begin to swell in the course of the following May; Early White Nocera Onion (\(\frac{1}{2}\) natural size).

Early White Nocera Onion (\(\frac{1}{2}\) natural size).

It is not at all a productive kind, nor does it keep well.

Early White Nocera Onion.—This variety is probably only a form of the preceding one which has been so modified by long-continued cultivation in a colder climate than that of its native district, as to have become larger in size and a little later in coming to maturity. Bulb silvery white, flattened, broader and flatter than that of the preceding kind, being from 2 to over 3 in. in diameter, and from \(\frac{3}{8}\) to 1 in. thick; neck fine; leaves few, dark green. In spite of every care taken in the selection of plants for seed, a small percentage of light brown or chamois-coloured bulbs will almost always be produced. It is a very early kind, but at least three weeks later than the New Queen Onion, and, like that variety, keeps badly.

Early Paris Silver-skinned Onion.—Bulb silvery white, flattened, and of about the same diameter as that of the preceding kind—that is, from 2 to over 3 in.—but thicker, and formed of more numerous and more closely set coats; neck fine; leaves of a rather deep, slightly glaucous, green, and not numerous. This variety is not so early as the preceding one, but keeps better; yet the bulbs are almost always sent to table quite fresh, and most frequently before they are fully grown. It is one of the best early Onions, and very probably originated from one of the early South
Italian varieties, which, when grown in the climate of Paris, exhibit a tendency to become identical with this variety.

**Early White Valence Onion.**—Bulb not so broad as that of the preceding kind, but thicker and larger, being less than 3 in. in diameter, and from \( \frac{1}{2} \) to 2 in. thick; leaves rather numerous, of a yellow-green colour. This variety is rather early and productive, and the bulbs are tender, but do not keep well. It is more suitable for the southern than for the northern parts of France. As regards its origin, it is more likely that it is a smaller and earlier form of the White Lisbon Onion than that it has sprung from any of the kinds which have been previously described.

**White Round Dutch Onion.**—Bulb a dull white, medium-sized, very firm, with thick tough coats, and varying from 2 to nearly 3 in. in diameter, and from \( \frac{1}{3} \) to \( \frac{1}{2} \) in. in thickness. It is not so much flattened as that of either the Early White Nocera or the Early Paris Silver-skinned Onion, and is also somewhat later than these varieties, but, on the other hand, it keeps remarkably well. In this respect it will bear comparison with the good yellow or red varieties of Onions. It is distinguished from the white varieties hitherto described by the outer coats of the bulb being firm and tough, instead of being of a delicate, brittle, and almost transparent texture. In consequence of this peculiarity the bulbs keep better, and are never disfigured by the greenish tinge which exposure to the sun often produces on the bulbs of the very early white varieties of Onions. The American *White Portugal*, or *American Silver-skin*, Onion is so much like the White Round Hard Dutch Onion that some consider the two to be identical. The White Portugal, however, has generally the bulbs larger and more regular, though not so firm as the Dutch variety.
White Globe, or Southport White, Onion.—Bulb silvery white, almost exactly spherical, with a diameter of from 2½ to 3½ in. every way, very firm, with a fine neck, and keeping remarkably well; leaves dark green, slender, and rather numerous. This variety is about as early as the White Lisbon.

Neapolitan Maggiojola White Onion.—An early and very large kind. Bulb silvery white, 4 or 5 in. in diameter, and about 2 in. thick; flesh tender; neck rather stout; leaves numerous, and of a peculiar light tint. This variety derives its name from the circumstance that in Italy it attains its full growth in the month of May, but it does not do so in France until August. However, it is a comparatively early kind, considering its large size and great productiveness. It does not keep well.

White Lisbon Onion.—Bulb round, more or less flattened, sometimes irregular in shape, 3 to 4 in. in diameter when well grown, and from about 2 to over 3 in. thick, often slightly pear-shaped in the lower part; neck rather thick; leaves numerous, and yellow-green. The flesh is not very firm, and, although it ripens rather late, this variety does not keep very well. It is most usually sent to table fresh from the ground, even in the south of France. In England it is grown in immense quantities for use while quite young and hardly formed, the bulbs being scarcely larger than a Walnut.

Large White Flat Italian Tripoli Onion.—It is rather difficult to procure this variety perfectly true to name, and it does not appear to be very extensively grown, even in Italy. It is in all points an exaggerated form of the Maggiojola variety, being one-third broader, often exceeding 6 in. in transverse diameter, with a depth of about 3 in. The neck is thick, and the leaves stout and dark green. The coats of the bulb are of a pearly white when dried, but more or less green as long as
they retain any moisture. This is a half-late and productive variety, and keeps tolerably well.

**Brown Portugal, or Straw-coloured White Spanish, Onion (Oignon Jaune Paille des Vertus).**—Bulb very much flattened, 3 to 4 in. in diameter, and about 2 in. thick, of a coppery yellow colour, with firm thick coats, which do not easily come asunder, and are deeper coloured in the underground part of the bulb than in the upper and exposed part; neck rather fine; leaves numerous, broad and dark green. This is a rather early and exceedingly productive variety, and keeps to perfection. It is the kind most commonly used for field culture about Paris, and is grown in very large quantities in the neighbourhood of Saint-Denis, and as far as Normandy. The winter supply of Paris and of a great part of Europe consists chiefly of this variety, which may be often seen hanging up in dwelling-houses in long hanks formed by interlacing and plaiting the withered leaves together.

**Reading, or Sulphur-coloured White Spanish, Onion.**—Bulb quite flat, 3 to 4 in. in diameter, and 2 in. or less thick, very much resembling that of the Brown Portugal, or Vertus, Onion, but of a far less coppery colour, and very perceptibly not so thick; coats firm, rather thick, very closely set, of a bright, slightly green, almost
brazen-yellow; leaves light green, fairly broad and long. A mid-season variety, very hardy and productive, and keeps remarkably well. This is the sort most generally grown and cultivated in England. There are many varieties of it grown, of which Nuneham Park, Banbury Improved, Naseby Mammoth, and Cantello's Prize are the principal.

**Danvers Yellow Onion.**—Bulb spherical or slightly flattened, coppery yellow, and a little redder than the Brown Portugal, or Vertus, Onion, usually from 2\(\frac{3}{4}\) to 3\(\frac{1}{2}\) in. in diameter, and nearly the same in thickness; coats numerous and closely set; neck very fine, as is also the disc or plate from which the roots issue; leaves medium-sized, and light green. This is an excellent early kind, and keeps very well. It is as well adapted for field culture as for the kitchen garden, but should always be sown in spring. When sown in autumn, we have always found it to run to seed in the following spring without bulbing to any extent. It is an American variety, and when first introduced into France (about 1850) was quite spherical in shape, but now it grows almost always more or less flattened, not only in European gardens, but also in its native country.

The English and American varieties *Australian Brown, Cranston's Excelsior, Crew's Globe, Golden Ball, Michigan Yellow Globe, Up-to-Date, and Yellow Globe*, some small differences in size, colour, and earliness apart, may all be considered as derivations of the Danvers Yellow.

**Yellow Trebons Onion.**—Bulb usually pear-shaped, more or less elongated, about as long a broad, generally 3 to 4 in. every way, narrowed at the neck,
and very often at the other end; inner coats of a bright yellow colour, outer ones of a slightly coppery hue; neck narrow; leaves numerous, but slender, and dark green; flesh tender, sweet, and of an agreeable mild flavour. This is a half-late variety, of remarkably good quality, but rather difficult to keep, and answers equally well for sowing in spring or in autumn. It was raised in the neighbourhood of Tarbes (Hautes-Pyrénées).

**Giant Zittau Onion.**

Bulb large, flattish, 4 to nearly 5 in. in diameter, and a little over 2 in. thick; outer skin very smooth and almost silky, of a pale salmon-colour, forming the connecting link between the yellow-skinned and the pale red-skinned varieties; leaves pretty numerous, of a light, slightly yellow, green; neck fine, as is also the disc, or part from which the roots issue. This is a fine mid-season variety, and is most productive and keeps very well. It does best in light, well-drained, but at the same time rich and well-manured soil.

**Giant Spanish, or Spanish King, Onion.**—

A large, almost round, light straw-coloured bulb, tender and with very thin coats, and about the size of an orange. From the South of France and Algiers it is exported in large quantities to Great Britain.

The well-known and much-prized American Onion known as the *Pristaker* is so like the Giant Spanish Onion that the two may be considered as identical.
James' Keeping Onion.—Bulb top-shaped, flattened on top and narrowing into a blunt cone towards the roots; the neck is slender; a very interesting variety of a very pretty chamois or salmon colour. Its chief merit is its keeping quality, the bulbs of the true James' remaining firm and solid up to mid-summer in the following year.

Very Early Rose-coloured Port Sainte-Marie Onion.—A small flat bulb resembling the Queen Onion in shape and size, but with rose-coloured, sometimes almost red, skin. The neck is very small and the leaves scanty, and early to die-off. Of all coloured onions, it is much the earliest, and among the silver-skins it is second only to the Early Queen by a few days. It is extensively grown and very popular in Southern France.

Market Favourite Keeping Onion (O. de Mazé).—A very pretty Onion of choice quality, which forms with the James' Keeping Onion the link between the yellow and the red Onions. It is in fact a salmon shade between yellow and rose. In shape, it is very different from the James' Onion in being flat. The foliage is scant and light. A half-early kind, bulbing rapidly, and keeping well. Easy to cultivate, it is a good Onion for the kitchen-garden as well as for the market-grower.

Common Pale Red Onion.—Bulb medium-sized, flattened, 2 to nearly 3 in. in diameter, and from ½ to 1½ in. thick, somewhat irregular in shape; outer coats coppery pink; inner ones a darker shade, changing to a purple; neck rather thick; leaves pretty numerous, short, and light green in colour. This is a hardy variety, and is very generally grown. It is a half-early kind, and keeps tolerably well, although it readily parts with its outer coats, like the kinds
which start to grow too soon. It is only suitable for spring culture. There are very many local forms of it which hardly differ from one another. That which is most frequently met with in commerce is grown in the neighbourhood of Bourgueil, in Touraine. The Pale Red Strasburg, or Dutch, Onion is closely allied to the Common Pale Red Onion, differing from it only in being a little more coppery in colour, and not quite so much flattened in shape.

Niort Pale Red Onion.—Bulb broad and flat, 3 to 4 in. in diameter (sometimes more), and from $1 \frac{1}{2}$ to $1 \frac{3}{8}$ in. thick, of a pale pink, slightly tinged with copper colour, and with some purple on the inner coats; leaves numerous, erect, large, and light green; neck rather fine. The outer coats of the bulb are thin and brittle, but it keeps well notwithstanding. This is an excellent, early, and very productive variety, and is very highly esteemed in the west of France. It answers well for sowing in spring, but succeeds best in its native district when sown in autumn, and transplanted either at the beginning or the end of winter, for the winters are mild in Brittany, Vendée, and Poitou, where it is chiefly grown.

The Leclottre Onion, a great favourite in Poitou, is only a form of the present variety which has a somewhat flatter and harder bulb.

The Saint-Brieuc Pale Red Onion differs from the Niort variety in having the bulb not so much flattened, yellower and less tinged with red. It is also not so hardy. Of the two varieties the Niort is preferable in every respect, and it has almost entirely superseded the Saint-Brieuc even in Brittany.
**Early Flat Red Onion.**—An exceedingly early variety, which bulbs almost as soon as the Early White Silver-skinned Onion, like which it has scanty and slightly glaucous leaves. The bulb is very broad and flat in proportion to its depth, and is of a decided red colour when dried a little, but while growing, and also underneath the outer coats, it is more of a purple colour. It is a good first-crop Onion, but, like most very early varieties, does not keep very well.

**Bright Red August Onion.**—This handsome variety is not unlike the Mézières Onion described further on, but the bulb is somewhat smaller, seldom exceeding 4 in. in diameter, and about 1½ in. in thickness. It is usually thicker in comparison with its diameter than the Mézières variety, and also less flattened at the ends; its colour is a little darker on the outer coats, and violet-red on the inner ones. An essential difference between the two kinds is that the August variety is especially suitable for sowing in autumn. It is chiefly grown in the southeastern parts of France, where it is sown in August and transplanted in October, the crop coming in in the course of the following summer. It is productive and keeps well.

**Blood-red, or St. Thomas', Onion.**—Bulb very much flattened, seldom exceeding about an inch in thickness, with a diameter of from 2½ to 3½ in.; coats firm, closely set, of a deep wine-red on the outside; inner ones of a fine, intense, brilliant red; neck fine; leaves rather stiff, compact, and dark green. This is a mid-season variety, not very productive, but keeps very well. It is hardy and easily grown, and is most in favour in the northern districts of France.

In the south-west of France, especially about Bordeaux, a very fine variety of Onion is sometimes met with under the plain name
of the Red Onion. The bulb of this variety is as highly coloured as that of the Blood-red Onion, but in shape and size it more resembles the Flat Tripoli. It is sometimes nearly 5 in. in diameter, and is very much flattened at top and bottom. The flesh is tender and mild flavoured, but the bulb does not keep well.

In all the Red Onions just described, the red colouring is superficial. When the bulbs are cut across, two or three of the outer coats are seen to be pretty highly coloured, while the interior ones are hardly pink.

**Globe Tripoli, or Globe Red Madeira, Onion.**—This is the largest of all varieties of Onion. The bulbs are almost spherical, and it is not uncommon to see some of them 6 or 7 in. in diameter. The outer coats are very thin and brittle, and salmon-pink in colour, while the inner ones have a tinge of lilac. The flesh is very tender, sweet, and mild flavoured. The neck is rather fine for the size of the bulb; leaves stout, numerous, and light green. This variety does best in warm climates, and in the south of Europe is highly valued for its size and agreeable flavour. It only attains its full development when sown in autumn. In the climate of Paris it is very sensitive to cold, and does not keep well.

**Flat Tripoli, or Flat Red Madeira Onion.**—Bulb of large size, broad, and very much flattened, from 6 to 8 in. in diameter, and about 2 in. thick, of the same colour as the preceding kind, or a little redder. The flesh, like that of the Globe Tripoli, is tender, and the bulb keeps equally badly. Both varieties are grown in exactly the same manner.
In order to obtain the enormous specimens of Tripoli Onions which may be sometimes seen exposed for sale by dealers in southern produce, the seed is sown in August, and the young plants are planted out in October and November. In the following year their growth is stimulated by continual supplies of water and manure, until July or August, when watering is discontinued, and in about a month afterwards the bulbs are gathered, some of them weighing two pounds each or even more.

**Blood-red Flat Italian Onion.**—Bulb flat, rather thick, from \( \frac{4}{5} \) to \( \frac{5}{3} \) in. in transverse diameter and a little over 2 in. thick; outer coats rather thick and dull red; inner ones of a brighter shade slightly tinged with violet; flesh tender and not very close; leaves numerous, stout, and dark green. This is a half-late variety, and rather difficult to keep. It does better when sown in autumn than when sown in spring, and is especially suitable for warm climates. When grown in northern countries, it quickly alters, losing much of its size, and at the same time becoming closer in texture and stronger in flavour.

**Giant Rocca Onion.**—A very handsome and good variety, of Italian origin. Bulb somewhat smaller than that of the Tripoli Onion, and still further distinguished from it by being chamois colour rather than pink, and flat on the top. The neck is fine for the size of the bulb, and the outer coats are firmer and tougher than those of the Tripoli Onions. The leaves are stout (but not excessively so), stiff, and a light green. A well-grown bulb will have a diameter of nearly 5 in., with a thickness of about \( \frac{3}{2} \) in. This is a half-late variety, very productive, keeps well, and, for a southern kind, does not do badly when sown in spring, although it succeeds far better when sown in autumn. A sub-variety is grown in Italy, under the name of Rose-coloured
Rocca, which differs from the Giant Rocca only by its russet colour.

**Pear-shaped Onion.**—There are numerous varieties of long-bulbed Onions, which differ from one another in colour and earliness. In these, the broadest part of the bulb is usually nearer to the neck than to the roots, so that the bulb narrows more abruptly at the neck end than it does towards the roots, and resembles a Pear with its stalk downwards. In Spain a White Pear-shaped Onion is cultivated. This is a late and large-sized kind, often growing nearly 5 in. long and about 3 in. in diameter. In France and Germany there are several other varieties of Pear-shaped Onions with a red or yellow skin, one of which grows so long that it is named the Ox-horn, or Spindle-shaped Onion. These varieties, however, are more curious than useful.

**Tree, Egyptian, or Bulb-bearing, Onion.**—Bulb rather flat, coppery in colour. Instead of seeds, the stem produces at the extremity a cluster of small bulbs, of a brown-red colour, from which the plant is propagated. When planted in spring, these small bulbs form large ones by the end of the year, but do not produce any bulblets until the following year. The flesh of the Tree Onion is agreeable, but rather deficient in delicacy of flavour. The bulbs soon decay, but the bulblets keep very well.

**Catawissa Onion.**—Some years since a variety was introduced
from America under the name of the *Catawissa Onion*, which appears to us to be only a slight modification of the Tree Onion, from which it is distinguished by the great vigour of its growth and the rapidity with which the bulblets commence to grow without being detached from the top of the stem. These have hardly attained their full size when they emit stems which also produce bulblets, and in favourable seasons this second tier of bulblets will emit green shoots, leaves, or barren stems, bringing the height of the plant up to over 2½ ft. Only a small number of bulblets (two or three on each stem) emit shoots. The rest do not sprout in the first year and can be used for propagating the plant. The plant is perennial, and may be propagated by division of the tufts, like the Welsh Onion.

**Potato Onion.** — Bulb rather large, from 2 to over 3 in. in diameter, and about 2 in. thick; skin thick and of a coppery yellow colour. This variety more frequently forms a cluster of underground bulbs of irregular shape than a single round bulb. It produces neither seeds nor bulblets, and is propagated only from the cloves or bulbs which are formed underground. If pretty strong cloves are planted immediately after winter, well-grown Onions may be gathered from them in the following June; but if the plants are allowed to attain full maturity, instead of a single bulb from each, seven or eight will be produced of various sizes. The strongest of these will also in their turn produce a number of bulbs or cloves, while the weaker ones generally grow into a single large bulb. The flesh of the Potato Onion is very agreeable to the taste and of good quality. The larger the bulbs are, the worse they keep.

Among the very numerous varieties of Onions which exist in addition to those just described, the following are the most noteworthy:—

**Oignon d'Aigre.** — A local variety, grown in the Department of Charente, which may be regarded as a sub-variety of the Niort Pale Red Onion, but has a flatter bulb.
O. Rouge Pâle d'Alais.—A southern variety, suitable for sowing in autumn. It is tolerably like the Niort Pale Red Onion, but is thicker in the bulb.

O. Paille Gros de Bâle.—A rather handsome, half-early variety, with a flat, well-shaped bulb, and a very fine neck, intermediate in colour between the White Spanish and the Strasburg Onion.

Bedfordshire Champion Onion.—A fine English variety. Bulb nearly spherical, and of the colour of the sulphur-coloured White Spanish Onion. It is a little thicker than the Naseby Mammoth and its allies, which are mentioned farther on.

Dark Red Brunswick Onion.—Bulb very flat, rather small, seldom exceeding about 2½ in. diameter, and about an inch or less thick, hard and firm, of such a deep red colour that it verges on black; neck fine; leaves short, rather slender, and a dark, slightly glaucous, green. This is a moderately productive kind, but keeps remarkably well.

Oignon Cabosse.—Bulb very flat and rather firm, with a very fine satiny skin of a slightly coppery or salmon-pink colour. The neck is very fine, and the disc or plate from which the roots issue is remarkably small. This fine variety is well adapted for sowing in autumn.

Cantello's Prize Onion.—Intermediate between the White Spanish and the Strasburg Onion, it comes near the numerous English varieties which are referred to the Deptford Onion.

Oignon Rouge de Castillon.—A handsome red flat Onion of large size, which is brought to Bordeaux in considerable quantities in autumn. It is tolerably like the Mézières Onion, but is often larger—more about the size of the Flat Tripoli. Like most large tender-fleshed Onions, it keeps badly.

Chamois Glatte Wiener Zwiebel.—A handsome coppery pink variety, with a fine neck and somewhat irregular shape. The Zittau Giant Onion appears to be an improved form of it.

O. Paille de Château-Renard.—The bulb of this variety is more of a coppery or salmon colour than a true yellow, which its name would appear to indicate. It bears a great resemblance to the Lescure Onion.

Como Flat Yellow Onion.—A small handsome Onion, coppery yellow in colour, with very thin silky outer coats; the bulb is very flat, less than an inch in diameter. It is much grown near Como, in Lombardy. It is a quick grower and keeps well. It is sold during the winter in long hanks like the Straw-coloured Vertus Onion.
Deptford, or Essex, Onion.—This variety is very closely allied to the Straw-coloured Vertus, but is a little redder in colour and usually less in diameter. It is a productive and pretty early kind, and keeps well. The general practice is to sow it in spring; but it is often grown from small bulbs raised in the previous year from thick sowings. These small bulbs form an important article of commerce under the name of Mulhouse Onions. The Brown Spanish, or Oporto, Onion is also frequently grown in the same way.

Extra Early Flat Red Onion.—An American variety. Bulb very flat, of the same size and earliness as the Early White Silver-skinned Onion, but dark red tinged with violet. It is a very distinct kind, and bulbs remarkably early.

O. Géant de Gargan Blanc.—Corresponding to the American Mammoth Silver King. An Italian variety, in shape and earliness almost the same as the Paris Silver-skin Onion, but larger in size.

O. Géant de Gargan Rouge.—Corresponding to the American Mammoth Pompeii Onion. A very large onion, deep red in colour, related to O. de Gênes.

Oignon de Gênes.—Bulb red, of medium size, often splitting into several cloves. It is earlier and smaller than the Blood-red Flat Italian Onion.

Large Yellow Dutch Onion.—An American variety. Bulb yellow, of medium size, nearly the same shape as that of the Straw-coloured Vertus Onion, but of a more coppery colour, like that of the Danvers Onion.

Yellow Lescure Onion.—A handsome kind, much grown in the vicinity of Toulouse, and all through Languedoc. It is chiefly adapted for sowing in autumn. The bulb somewhat resembles that of the Niort Pale Red Onion, but is not so flat, and its colour is much more of a yellow or coppery tinge.

Bright Red Mézières Onion.—Bulb flat, very broad, sometimes 4 or 5 in. across, and about 2 in. thick, of a fine intense red colour,
slightly tinged with purple on the inner coats; neck rather stout; leaves large, numerous, erect, and dark green in colour. A very handsome and exceedingly productive variety. It keeps well, and is very suitable for sowing in spring.

**Ognon Monteragone.**—An Italian variety. Bulb medium-sized, thickish, with a coppery red skin, and rather like that of the Strasburg Onion.

**Naseby Mammoth, Nuneham Park, and Improved Reading Onion.**—These three varieties are so like one another that they may be considered identical. They are a form of the White Spanish Onion with the bulb thicker and somewhat darker coloured than that of the ordinary variety.

**Nürnberger Zwiebel.**—A German variety of the Common Pale Red Onion, from which it is distinguished by the smallness of the bulbs, which are also somewhat firmer and better shaped.

**O. de Puyrégner, or O. Rouge Rosé d'Angers.**—In Anjou this variety is considered different from the Niort Pale Red Onion. We mention it here merely to state this, as from all the comparative trials we have made with it, it appears to us to be exactly the same.

**Red Globe Onion.**—An American variety, apparently only a spherical-bulbed form of the Wethersfield Onion.

**O. Rouge Monstre.**—A kind of Tripoli Onion, intermediate in shape between the Globe and the Flat varieties, and of a very decided red colour.

**Yellow Russian Onion.**—An exceedingly distinct kind. Bulbs rather small and thick, with the fault of frequently splitting into cloves, but still keeping better than any other kind. We have seen bulbs of this variety which were gathered in autumn keeping good for use until September of the following year. The outer skin is very leathery; it is of a coppery colour, like that of the Strasburg Onion, but with age becomes as brown as the skin of a Tulip bulb.

**O. Brun de Saint-Laurent.**—Of Italian origin, bulbs top-shaped, almost flat, copper-yellow, tending to brown. A vigorous late variety.

**O. Rouge de Salon.**—A southern variety, with a large but rather soft bulb, like that of the Tripoli Onions. In colour it quite resembles the Blood-red Flat Italian Onion, but it is notably thicker.

**O. de Ténériffe.**—A very distinct small-sized variety, with a very flat bulb of a grayish pink colour. This is the earliest of all varieties next to the New Queen Onion, being even some days earlier than the Early White Nocera. It may be here remarked that in sowings of the last-named variety some coloured bulbs are almost always found which bear a marked resemblance to the Ténériffe Onion.
O. Rouge Pâle de Tournon.—A very handsome, pink-tinged, yellow Onion, of rather large size, flat, and early. It greatly resembles the O. jaune de Lescure mentioned above.

Two-bladed Onion.—A very early small-sized kind, copper-red in colour, with a fine neck, almost sunk in the bulb. When this variety comes true from seed, most of the plants have only two or three leaves each, from which peculiarity it takes its name.

O. de Vaugirard.—This name is sometimes given to a somewhat earlier form of the Early Paris Silver-skinned Onion, but the variety is not well established nor very constant.

O. de Villefranche.—A handsome, medium-sized, very flat, and fine-necked variety, yellow pink or salmon colour. It is an early kind, keeps well, and is not unlike the Lescure Onion.

Wethersfield Onion.—A very handsome American variety, with a very smooth, clean-skinned bulb, almost spherical, or slightly flattened at the ends. In shape and size it comes very near the Danvers Yellow Onion, and, like that variety, has an exceedingly fine neck; but it differs entirely from it in colour, being of a bright red, like the Mézières Onion. The leaves are slender, long, and of a clear green colour. This a half-early kind, and keeps well. In its original form the bulb was quite spherical, but at the present day it is seldom found, even in America, without having the ends somewhat flattened, and where the primitive form occurs it is known as the Large Red Globe Onion.

White Globe Onion.—Under this name is grown in England a variety with a spherical bulb of the colour of the White Spanish Onion—that is, a pale or greenish yellow. It is important not to confound this variety with the Globe Silver-skinned Onion, which is really white.

WELSH ONION, or CIBOULE

*Allium fistulosum, L. Liliaceae.*


Native of Siberia or the East.—Perennial, but cultivated as an annual or biennial.—A plant very closely allied to the Common Onion in its botanical characteristics, although it does not form a bulb, properly so called, but only a small enlargement at the base of each shoot. Leaves numerous, hollow, rather dark green in colour, somewhat glaucous, and 10 to 14 in. long. In the second year the flower-stem makes its appearance and grows about 20 in. high; it is swollen about the middle and terminates in a spherical cluster of flowers like those of the Common Onion.

CULTURE.—The plant may be propagated by division, as each of the stems which are swollen at the base will speedily produce
a new tuft; but, as it seeds abundantly, and the plants are apt to suffer in a severe winter, it is most usually raised from seed in preference. The soil should be good, and both well manured and well dug. The seed is sown, where the plants are to stand, from February to April or May. The only attention afterwards required is to water the plants and keep the beds free from weeds, as with Onions. In three months' time after sowing, the first cuttings of the leaves for use may be made.

USES.—The leaves, which have a strong Oniony flavour, are used for seasoning.

Common, or French Red, Welsh Onion, or Ciboule.—Bulbs or enlargements very long, coppery red, and covered with dry membranes, like the outer coats of the Common Onion, which also cover the bases of the leaves for some distance above ground; seed black, angular, flattened, and concave on one of the sides or faces, and quite like the seed of the Common Onion. Its germinating power lasts for two or three years. This is the variety which is most commonly grown. It is productive and comparatively hardy.

Early White, or English, Welsh Onion.—A very distinct variety, having the bulbs or enlargements shorter than those of the preceding or ordinary kind, and with pinkish white coats, silvery white above ground. Leaves short and stiff, dark glaucous green, not so strong to taste as those of the ordinary kind, and more delicate in flavour. The seed also is smaller. Its germinating power continues for the same length of time. This variety appears to be sensitive to cold. In winter it loses its leaves entirely, but sends out new ones early in spring.

PERENNIAL WELSH ONION

Allium lusitanicum, Lamk. Liliaceae.

Ciboule vivace.

Bulbs numerous, very long, a rather deep red-brown, attached to a common disc at the base; leaves a very glaucous green, stiff, thick, and numerous. The plant sometimes produces flower-stems, which terminate in a globular cluster of pale violet-coloured flowers
yielding no seed. This Onion is always multiplied by division of the tufts, and with this exception its culture is exactly similar to that of the ordinary variety.

**ORACHE**

*Chenopodiaceae.*

Native of Tartary.—Annual.—A plant with broad, arrow-shaped, slightly crimped, soft, pliable leaves. Stems 5 to 6½ ft. high, angular, and furrowed; flowers apetalous, very small, green or red, according to the variety; seed flat, russet-coloured, surrounded by a leafy membrane of a light yellow colour. The plant also produces some seeds, which are black, small, and disc-shaped, without any membranous appendage. These are not always fertile. Their germinating power lasts for six years.

**CULTURE.**—The seed is sown, where the plants are to stand, in the open ground in the beginning of March, usually in drills. When the seedlings have made three or four leaves, they should be thinned out, after which they require no further attention, except occasional watering in very dry weather. The plants bear hot weather pretty well, but soon run to seed, on which account it is advisable to make successional sowings from month to month.

**USES.**—The leaves are eaten boiled, like Spinach or Sorrel, and are often mixed with the latter to modify its acidity.

The following are the three principal kinds of Orache which are most commonly cultivated in France:

**White Orache.**—This variety is more commonly grown than any other kind. The leaves are a very pale green, almost yellow.

**Dark Red Orache.**—The stems and leaves of this variety are of a dark red colour, which gives it a very distinct appearance. The red colour disappears in cooking.
Green Orache, or Lee's Giant Orache.—A very vigorous kind, with a stout, angular, branching stem. The leaves are rounder and less toothed than those of the White variety, from which they differ also in being dark green.

There is also a variety grown which has pale red or copper-coloured leaves. This, however, does not possess any special merit.

Within the last few years some persons have spoken very highly of Chenopodium auricomum, Lindl.—a tall, branching plant with rather small leaves. This does not appear to be in any way superior to the Common Garden Orache, except perhaps for warm climates.

SPANISH OYSTER PLANT.—See Thistle, Golden

VEGETABLE OYSTER.—See Salsify

PARSLEY

*Apium Petrotselinum, L.; Petrotselinum sativum, Hoffm. Umbelliferae.*


Native of Sardinia.—Biennial.—During the first year of its growth the Parsley-plant only forms a more or less full rosette of long-stalked leaves, which are two or three times divided, and dark green in colour; the divisions are toothed, more or less entire, or, in some varieties, finely cut. The flower-stem, which does not appear until the second year, is erect, branching, furrowed, and from 2 to over 2½ ft. high. Flowers small, greenish blue in colour, in terminal umbels; seeds three-sided, grey or light brown, flat on two sides and convex on the third, where they are marked with five prominent ribs. They are strongly aromatic, like all the other parts of the plant. Their germinating power lasts for three years at least.

CULTURE.—The seed may be sown in the open air, from March to August or September, either on the edges of beds containing other plants or in separate beds, in drills 10 or 12 in. apart. It is usually rather slow in germinating, seldom doing so in less than a month. If the seedlings are properly thinned, and the beds kept free from weeds and frequently watered, some leaves will be fit to cut in about three months after sowing. It is a good plan to cut only the best-grown leaves one by one, as Sorrel leaves are gathered, as when this is done the plants yield a more prolonged supply than when whole tufts are cut off at once. As Parsley is somewhat sensitive to cold, it is advisable, in order to keep up the supply in winter, to put a frame over a bed in full bearing, choosing, if possible, one containing young plants which were sown about August. Old well-established plants also might be taken up and forced in a plant-house or a hot-bed, in the same way as Asparagus stools.
Simple as the matter is to many, others find it difficult to secure a constant supply of good Parsley, owing to haphazard ways of sowing and to subsequent neglect. The following extracts from *Gardening*, written in reply to a question on the subject, furnish good general cultural directions:

"An open plot should be selected, but it should be protected from the northern and eastern winter's blast. This should be trenched, or at least deeply dug, and liberally manured. The seed should be sown the first week in June, so that the plants may get large and strong before winter sets in. When the seedlings are large enough, they should be thinned out to at least a foot apart each way. I should have stated that, as the plants grow, but slowly in winter, a much larger piece of land must be sown than would be required for a summer's supply. It would be advisable to make a sowing in a pit or frame for use when frost and snow are on the ground; or if four short stakes were driven into the ground, and connected with cross-pieces, so as to be in readiness for laying boards, faggots, or wattle hurdles across on the approach of hard frost, the same end would be attained. A sowing should be made in July for late spring use. March is the time to sow for a summer supply. Sometimes failure ensues, not from defective cultivation, but because the young seedlings are destroyed by vermin as soon as they appear; or, as is often the case, as the seeds must not be buried deep, and are a considerable time germinating, when dry weather sets in after sowing, the seeds perish. To guard against failure from either of these causes, at the same time the seeds are sown in the open ground some should be sown in a box or pan, so that should failure arise in the first instance, there would be a supply of young seedlings that could be potted into small pots. These young plants, when ready, should be put out in the ground where the seeds failed to germinate. It is safer to shift the young seedlings into small pots than to prick them into boxes, because when, in the latter case, they are taken up with balls of earth and put into the ground, the injury done to the roots in the operation causes flagging, and makes the plants very palatable to slugs. Nor is the potting so formidable a matter as to some it might appear. Old potting stuff or common garden soil would do for the purpose, and a man of ordinary quickness would pot off a hundred plants in an hour."—L. C. R.

"Sow thinly in March and again at the end of July for succession on land that has been heavily manured for the previous crop, and which should be deeply trenched. Sow in beds broadcast when the ground is dry, and well tread in. By doing so, some of the seeds will be in the exact depth to germinate freely and make nice healthy plants, which should be left when thinning out, say 12 in. apart if large specimens are required. A slight dressing of soot will be of service when plants are thinned, which put on when damp. If your soil is light in texture, well roll or tread, as I find Parsley does well with me on light soil when ground is so treated."—E. T. P.

"In preparing a Parsley bed, the soil should be removed to the depth of 6 or 8 in., and filled in with stones, brick-rubbish, and similar loose material; on the top a good depth of rich soil should be placed, which should be raised above the
level of the ground. Sow at the end of May seed of the most early variety. If the weather continues dry, water frequently until the plants are up, which will be in five or six weeks. When large enough, thin them out to 4 or 5 in. apart. Parsley when well up requires very little water; the roots should be kept in a rather dry state.”—A. N.

“It is thought that Parsley will grow anywhere, but I have found that in some classes of soil the roots are attacked by canker of some kind. The main stem has a rusty appearance, and many of the fibrous roots decay. You should work the ground to the depth of a foot, giving it a good dressing of rotten stable manure. Sow the seeds in March. To make sure of Parsley in winter, the leaves must be cut off about the first week in September; this will be the cause of a sturdy late autumn growth, which will stand best through the winter.”—J. D. E.

Market-Garden Culture.— Parsley is grown to a large extent in some market-gardens about London, whilst in others none can be found. The seed is sown in successional batches from March to August in rich soil, and generally where the plants are to remain, transplantation being considered detrimental to its producing good foliage; it also induces the plants to run to seed sooner than they otherwise would do. When up, the young plants are thinned out to a proper distance apart by means of hoes, and some growers protect a large bed of it during winter; but, as a rule, this kind of treatment is not considered sufficiently remunerative to be carried out on a large scale.

Uses.—The leaves, which are aromatic, are much used, raw, fried or boiled, for flavouring, garnishing, etc.

Common, or Plain, Parsley.—The characteristics of this plant being exactly the same as those of the typical species described above, we need not repeat them here, and shall merely observe with respect to this form of Parsley that it is the only one that might be easily confounded with Fool's Parsley (Æthusa Cynapium, L.), a native and virulently poisonous plant. The leaves of the two plants are so much alike that even a practical gardener cannot distinguish one from the other with certainty unless he tests them by taste and smell. When Parsley is grown for flavouring sauces, etc., every care should be taken to prevent a poisonous plant being mistaken for it. This could be done most effectually and easily by making it a rule never to grow any kind except the Curled-leaved
PARSLEY or Fern-leaved varieties, which are quite as good for flavouring as the Common Parsley, and much better for garnishing. As these kinds do not seed very plentifully, and require some care to keep the varieties pure, the seed is rather dearer than that of the Common Parsley, but so little of it is sufficient for a garden, and the perfect security from danger which is ensured by growing only these kinds is so precious, that the matter of cost is really hardly worth mentioning.

**Double-curled Parsley.**—In this variety, the divisions of the leaves are rather deeply cut, and each of the small segments thus formed is more or less turned back on the upper side, giving the whole leaf a crisped or curled appearance which has a rather pleasing effect.

In some forms of Curled Parsley, the segments of the leaf are turned back so much as to show almost the whole of the underside, which is of a paler and grayer green than the upper side. Of this kind are the forms known as the *Windsor Curled Parsley* and *Smith's Curled Parsley*. These kinds are not so pleasing in appearance as the Common Curled Parsley, as their leaves always have something of the look of being blemished or diseased.

**Champion Moss-curled Parsley.**—Resembles the Double-curled Parsley, and, like the latter, is easily told from all wild plants of the *Umbelliferae* tribe. Its dark green colour makes it useful for garnishing.

**Double-curled Dwarf Parsley.**—A sub-variety of Curled Parsley, remarkable for the fineness of the cutting and the great number of the divisions of the leaves. The segments touch one another, and give the leaf the appearance of a piece of very dense Moss. In this form the leaf-stalks are exceedingly short, so that the leaves almost lie upon the ground, forming a very low thick tuft. This is the best Parsley of all to use for decorative purposes, and for garnishing dishes. It is also quite as aromatic as the other kinds.

**Fern-leaved Parsley.**—In this variety the leaves are not curled, but are divided into a very great number of small thread-like segments, giving to the whole plant a very light and graceful appearance.
The plant is also distinguished by the very dark green colour of the leaves. It is one of the most difficult kinds to preserve quite pure.

Hamburgh, Large-rooted, or Turnip-rooted Parsley.—In this kind of Parsley it is not the leaves, but the thick fleshy roots, which form the edible part of the plant. These roots, which are of a dingy white colour, and almost like Parsnip roots, often grow 6 in. long, with a diameter of 2 in. in the thickest part, which is usually close to the neck. The flesh is white and somewhat dry. In flavour it resembles the Celeriac, or Turnip-rooted Celery, but is not so delicate. The leaves are exactly like those of the Common Parsley. In Germany, where this plant is rather extensively cultivated, there are two varieties grown, viz. a late one, which has long slender roots, and an early one, the roots of which are shorter and thicker. These varieties do not appear to us to be very constant, and the difference in the weight of their respective produce is rather slight.

The early or thick-rooted variety is grown like the Parsnip. The seed is sown immediately after winter in well-dug soil, and the roots may commence to be gathered in September. They are not affected by frost, and may be left in the ground until it arrives. This plant is not one of the old-fashioned vegetables,
PARSLEY

but, like the Bulbous-rooted Chervil, was taken in hand and introduced into cultivation at a comparatively recent date.

Amongst plants which are not yet in cultivation, and especially amongst the biennial Umbelliferous plants, it might be possible to bring some of them to produce fleshy roots of sufficient size to form useful vegetables. The result of one experiment which was undertaken by us for a purely scientific purpose confirms this opinion. The Beaked Parsley (Anthriscus sylvestris, L.), a wild plant of our woods, at the end of ten years' repeated sowings and methodical selection, produced in some sowings a proportion of one-half or more of simple, clean-skinned, fusiform roots, as regular in shape as the best roots of the Hamburgh Parsley. Now, in the wild state the root of this plant is as forked and divided as that of the Celery. The progress made, therefore, was considerable, and it is to be observed that the plants thus improved represented only the fifth generation from the wild plant, as the Anthriscus, being a biennial, does not seed until the second year.

PARSNIPS

Pastinaca sativa, L. Umbellifera.


Native of Europe.—Biennial.—Root a very long tap, white, swollen, and fleshy; radical leaves divided, as far as the midrib, into irregular toothed segments; leaf-stalks overlapping, and often violet-coloured at the base; stem hollow, furrowed, branching, bearing at the extremity broad umbels of green flowers, succeeded by flat, almost circular seeds, which are winged at the margin, light brown, and marked with five raised lines or ridges. The germinating power of the seeds lasts for two years.

CULTURE.—Parsonips are grown in the same manner as Carrots, only they may be sown earlier in the year—about the end of February or early in March. The seed cannot always be depended on for germinating, and, in dry climates often
fails to do so, from the want of atmospheric moisture. Being a very hardy plant, the crop may be left in the ground until late in autumn, or even all through the winter, and taken up as the roots are required.

Soil.—Although the Parsnip will grow in almost any kind of soil, it succeeds best in land that is neither over-light and sandy on the one hand, nor too heavy and adhesive on the other. The form of the root, penetrating as it does for a considerable distance straight down, at once shows the necessity for a sufficient depth of soil to admit of its extending; consequently the ground should be well and deeply dug, so as to readily allow its descent whilst the root is young and delicate. The soil should be moderately rich for Parsnips to grow to a large size, in which condition they are quite different, both in flavour and texture, from the stunted, starved productions resulting from poor hungry land and negligent cultivation. But although the Parsnip likes to be well nourished, it is not advisable to grow it in land that has immediately before received a heavy dressing of manure, as the roots are then liable to be cankered or affected with grub. It is best to grow it after some other crop that has been well manured, such as Onions, Cauliflowers, or Lettuce, trenching or deeply digging the ground over in the autumn, and leaving it as rough as possible on the surface. Should the soil not be suitable for the crop on account of its poverty, some manure ought to be added in the autumn, which will be much better than adding it at the time of sowing, mixing it regularly with the soil as the work proceeds.

Sowing and Thinning.—About the middle or latter end of March, according as the locality may be early or late, as soon as the land is sufficiently dry, let it be well forked, reducing all the hard lumps that exist—not merely making it smooth on the surface, but quite as deep as the fork or spade goes. This is necessary for most plants, but particularly so for Parsnips, or the roots are liable to grow forked. With this, as with all other spring-sown crops, never be guided by a certain date, even to a week, in the time of sowing, if the state of the land be such as not to favour the sowing of the seed; it is always better to wait than sow when the soil is too wet—the effect of which is that it does not germinate freely, and the land gets compressed and never works kindly throughout the whole season. Sow in drills 1 in. deep, and from 15 to 18 in. apart, according to the more or less rich condition of the land. All that is afterwards required is timely thinning, leaving the plants 10 or 12 in. apart in the rows, and the careful destruction of weeds by frequent hoeings throughout the season.

Storing.—Many take up the roots towards the end of October and store them in sand or ashes; but they are much better if left in the ground, as not liable to get spongy or strong flavoured, which they sometimes do when stored under cover. If the ground occupied by the crop is required for other purposes, the roots may be dug up and stuck in mounds or clamps, in the same manner as Potatoes, or a deep trench may be dug and the roots placed perpendicularly in it close together, afterwards covering them over with soil to a depth of 6 in.
In the London market-gardens, Parsnips are always sown as soon after the middle of February as possible, provided the ground is moderately dry and warm, and crumbles freely with the fork. Preparatory to sowing, the ground is levelled, and the soil well broken in the operation, and finished off by raking the surface smooth with a wooden rake. Shallow drills are then drawn for the seeds at about 18 or 20 in. apart; and after being sown they are covered in by the feet or the back of a rake, and the whole is smoothly rolled. Sometimes white or green Cos Lettuces have been planted in rows at those distances, and the Parsnips sown in lines between them. In either case, Lettuces are planted—if not first, they are put in afterwards; and as the Parsnips take a long time to germinate, the Lettuces are removed before they can injure them. As soon as the Parsnips are fairly up and growing, they are thinned out a little, and when well established, they are finally thinned to 9 in. apart. The Lettuces, when marketable, are tied up and removed before they can choke or otherwise injure the Parsnips, which afterwards soon grow rapidly, no further care than occasional hoeing being then bestowed upon them. The bulk of roots per acre is enormous, many of the specimens measuring individually 7 and 8 in. in diameter at the shoulder, and 20 to 24 in. in length. The variety grown in market-gardens is the Hollow-crown, a capital sort that produces roots from 4 to 6 in. in diameter at top, and from 10 to 20 in. in length; and the crowns are, as a rule, buried a little below the surface soil. Parsnips are not brought to market much before November, unless the demand for them is great and prices high. But from that time until the middle of February they are in fine marketable condition, and, being always left in the land where they grow, are lifted as required. Being thus left undisturbed, they preserve their flavour much better than they do when lifted and stored in pits.

USES. — The roots are boiled, and are often used for flavouring broth or soup without being eaten. They also form an excellent food for horses, and are extensively used for that purpose in districts where Parsnips are easily and successfully grown, as in Brittany.

Long Parsnip. — This form, which comes the nearest to the Wild Parsnip, is now very little grown. It is characterised by having a very long root, often 16 in. in length, deeply sunk in the ground, and an elongated conical neck.

The Improved Brest Parsnip is a thicker and shorter form of the old Long Parsnip. It also has a conical neck and a wrinkled skin. It has the advantage of being productive, while the roots are more easily pulled than those of the old variety; however, the following kind is far superior to it.

Long Smooth Hollow-crown Parsnip. — A fine strain, sometimes confounded with the Half-long Hollow-crown, or Student, Parsnip, but quite distinct from it, requiring a deeper soil and being
also more productive. The full-grown roots are 15 in. in length, with a diameter of 6 or 7 in. at the top. The leaves grow out of a groove surrounded by a raised circular ring on the root. The skin is much whiter and smoother than that of the Long Parsnip.

Half-long Hollow-crown, or Student, Parsnip.—Root handsome, long, thick, very clean skinned, with a fine neck encircled by a grooved depression, from the centre of which the leaves issue, the root being swollen all round it. The root is generally only about three or four times as long as broad, and has a smooth white skin, whereas that of the Common Long Parsnip is wrinkled and furrowed. It is an excellent and very productive variety. The leaves also of the Hollow-crown Parsnip are much smaller and fewer for the size of the root. There is as great a difference between this variety and the Common Long Parsnip as there is
between a variety that has been modified and improved by cultivation and one that is almost wild. The English variety, Sutton’s Student, is a superior-flavoured local form of it, and Elcombe’s Improved is a first-class variety, of excellent flavour. Although it is both large enough and hardy enough to be grown for cattle-feeding, the Hollow-crown Parsnip is essentially a table vegetable, and as such it is chiefly cultivated. It is not quite so early as the Round Parsnip, but is more productive.

**Round Parsnip.**—Root top-shaped, broader than long, often 5 or 6 in. across and 3 or 4 in. in depth. The leaves of this variety are fewer and slighter than those of the Long Parsnips; the root also swells much sooner. It is the best kind for kitchen-garden culture.

**PATIENCE DOCK, or HERB PATIENCE**

*Rumex Patientia, L. Polygonaceae.*


Native of Southern Europe.—Perennial.—Leaves slender, flat, oval-lanceolate, pointed, narrowed abruptly into the leaf-stalk, which is long and channelled on the upper surface; stem 4 to 6½ ft. high, with ascending branches; flowers in thick clusters, forming a rather close branching panicle at the top of the stem; seed triangular, pale brown, much larger than that of the Common Sorrel. Its...
germinating power lasts for four years. This species is not so acid as the other kinds of Sorrel; it is exceedingly productive, and yields a supply of leaves immediately after winter, ten or twelve days, at least, before any other kind. It is grown exactly like the Common Sorrel.

**PEAS**

*Pisum sativum*, D.C. *Leguminosae.*


The Pea is an annual plant, of uncertain origin, but probably a native of Central Europe or the mountainous region of Western Asia, as it is hardy enough to withstand the winter generally in the climate of Paris. The cultivated Pea has slender hollow stems which require some support to enable them to grow erect. The leaves are compound, pinnate without an odd one, the leaf-stalk terminating in several tendrils which take the place of the odd leaflet, and enable the plant to climb by attaching themselves to any object within their reach. The base of the leaf-stalk is surrounded by a very broad clasping stipule, which is larger than any of the leaflets. The flowers are produced in the axils of the leaves, commencing almost regularly at a certain height from the ground in each variety, either in pairs, or often solitary, and very rarely three together, at each joint of the stem. The market-
The gardeners about Paris give the name of “mailles” to the flower-bearing joints of the Pea-stem, and when they want to describe a variety as one-flowered or two-flowered, they say that it “has one or two flowers to the ‘maille!’” The flowers are sometimes white, and sometimes violet-coloured, with the wings and keel of a darker shade than the standard. The varieties which have coloured flowers may be distinguished long before they come into bloom, by having a small reddish circle around the stem where it is clasped by the stipules.

The seeds of the violet-flowered Peas are always more or less tinged or spotted with brown. When boiled, they turn to an unattractive grayish colour, and have a rather strong rough flavour, in consequence of which they are not grown for shelling; only the edible-podded sorts are grown for table use. Varieties of Gray Peas which have tough leathery pods are only grown for feeding cattle.

Most of the varieties which are grown for table use have white flowers, and the seed also is white or green when ripe. The size and weight of the seed vary too much in the different varieties to permit us to treat of them here in a general manner, but we shall mention these matters in detail in the description of each variety. We shall only observe that the germinating power of the seed lasts good for three years, after which it speedily declines, although it is not unusual to find some seeds germinating well after seven or eight years. Wrinkled Peas usually do not germinate so well as the Smooth-skinned, or round, Peas, nor does their germinating power last so long.

Among the very numerous varieties of Peas, a distinction is made between those of which only the seeds, whether green or dried, are eaten, and which are termed Shelling Peas, and those of which the pods are eaten entire when the seeds are hardly formed in them; these are called Edible-podded, or Sugar, Peas.

Among the varieties of Shelling Peas, a distinction is made between the Smooth or Round-seeded and the Wrinkled kinds, the latter of which are now nearly as numerous as the others. And lastly, both the Edible-podded and the Shelling Peas are divided into the three classes of Tall, Half-dwarf, and Dwarf Peas (Pois à Rames, P. Demi-Nains, and P. Nains). All these differences, without taking into account the green or white colour of the seeds, have caused the cultivated varieties of Peas to be grouped into classes or sub-divisions, under which we shall describe each kind in succession.

Culture*-The cultivation of Peas presents no great difficulty, and in the vicinity of Paris and other large towns it is carried on in the open fields on a large scale, and usually very profitably. The soil in which they are grown should be, as far as possible, well drained, rich, and of a medium consistence. The seed is sown in drills, from the middle of November to March. The Early Frame

* See also p. 765.
Pea (Pois Michaux) is the kind most used about Paris for sowing in autumn, on which account it has obtained the name of St. Catherine's Pea. These November sowings might also be very advantageously made in kitchen-gardens, in which case the seed should be sown in a border at the bottom of a wall with a south aspect. It is exceedingly early, very dwarf, takes up very little room, and there is no need to bend down its stems with laths or cross-bars, as was formerly done when, before its introduction, tall or half-dwarf varieties were grown in frames.

Successional sowings in the open air should be made all through the spring in order to ensure a continuous supply through the summer. After the early varieties, the next sowings consist of tall kinds, which are later, more productive, and less liable to suffer from mildew during hot weather. The Clamart Pea and the tall varieties of Wrinkled Peas are particularly good kinds for late sowings, the crop from which comes in at the end of summer or early in autumn.

In kitchen-gardens, tall Peas are staked with branches of trees, chestnut-loppings being mostly used for this purpose in the vicinity of Paris; but when grown in the open fields, they are seldom staked, on account of the cost of labour which the operation would involve. In the absence of stakes, the stems of the Peas are pinched off just above the fifth or sixth flower, after which they grow sufficiently stiff and firm to support themselves. This treatment, however, which answers very well for varieties of moderate height, such as the Michaux Peas, does not suit the tall kinds, such as the Tall Wrinkled Peas, and these, accordingly, are not employed for field culture.

When Peas are once well up and staked (if they require it), they need no further attention except occasional watering in dry weather. Transplanting is only practised with very early Peas, which are raised in pots in a plant-house or under frames, to be planted out as soon as winter is over, and its advantages are not quite certain.

With every suitable appliance the Pea season may extend from the beginning of July till the end of October, and I have, in exceptional seasons, gathered Peas as late as November 10th. But those Peas gathered early in May are grown under glass, and the very late Peas are, of course, mainly dependent upon the season. The best months for Peas are June and July. In warm situations the produce of the early south border begins to turn in about the end of May, and green Peas are common enough in June, but July is the month for excellent Marrow Peas. In August and September, unless the land is good and the treatment very liberal and first-rate in every respect, the Peas are very likely to fall away, and if they do not cease to bear, the pods lose their fresh green colour, and the peas in the pods are infested with maggots, and if mildew makes its appearance the chapter of ills is
complete. Most of these evils may be successfully combated, as I shall show presently. But we will begin with

The First-Early Peas.*—These, where glass can be had sufficient for our needs, will comprise several small supplies in pots of some approved dwarf kind, which should be sown in 8 in. pots in November, and be brought on steadily in a pit close to the glass with just the smallest amount of artificial warmth, as Peas do not force well in heat; and therefore it will not do to be impatient. A steady, regular growth, in a very light position, with a temperature never exceeding 45° to 50° at night, will be best. Ventilation must be given at every suitable opportunity. The first sowing in the open air may take place at any time from the beginning of November till March, and the probabilities are that if the same kind of Peas be planted at both these extreme limits of time, there would not be more than ten days' difference in the time of gathering! But even then the week or ten days gained is thought much of. In cold, wet districts it is as well not to sow till after Christmas, as in such situations the early sown crops are not unfrequently cut off by cold winds. Very often the first early Peas are raised under glass, and when hardened planted out early in March. The seeds of a white round early Pea, such as Sangster's No. 1, are sown in pots or troughs, or on sods of turf, and placed in heat, where they soon germinate, when they are hardened off and planted on a warm south border the first week in March. A ridge of earth is drawn up on each side as a shelter, and a few evergreen boughs are added as a further protection.

Mr. Muir advises sowing early Peas in cold frames, and not in warmer houses or pits:—"I like a

frame about 2 ft. deep better than any other structure in which to raise early Peas. Fill some hundreds of small 3 in. pots half full of soil, then put in ten or a dozen seeds, finish off with more soil, and place them in a frame covered with a good sash; they will soon germinate and make fine, sturdy, dark green-leaved plants, which may be planted out almost at any time without receiving the slightest check. If a batch were placed in a cold frame and another in a warm house at the same time, by April the frame ones would be by far the best as regards robustness and fertility. There is no better place than a cold frame in which to raise early Peas, and I would advise everybody, especially amateurs, to try Pea-growing in this way. No expense is incurred in getting them up or anxiety in getting them put out and hardened off, as by judicious air-giving on fine days they may be grown from the first in a most natural way, and induced to pod some weeks earlier than any grown wholly in the open ground." The second-early Peas may be sown at the same time as the early kinds, when these are not sown before the end of February.

Succession.—To keep up a regular succession, there should be frequent sowings; taking account of and giving due weight to the fact that all Peas sown during the months of January, February, and the first half of March will not vary more than a week or ten days at the time of turning in. There will not be much use in making successional sowings during these months. As a matter of fact, I have often sown at intervals of a fortnight or so in order to test the matter, and I have always found that to obtain a succession from first sowing the best plan is to sow at least three or four distinct sorts at the same time,

* See also p. 765.
including an early kind, a mid-season one, and a late variety. After April comes in sow the succeeding crop as the preceding one is just through the ground. The following dates may be taken as approximately correct. They are founded upon a good deal of experience and careful note-taking; and, making due allowance for the effect of latitude upon climate, and the variations of soil and seasons, may be safely acted upon. Early white round Peas, sown before Christmas, or not later than the first week in January, should be fit to gather the last week in May. Those of a second-early type, sown from the end of January to the end of February, should be fit to gather from June 10th to 20th; Huntingdonian and Telephone, sown from February 20th to March 10th, should be fit for use from June 20th to the middle of July, or later. Marrow Peas, such as Veitch's Perfection and Ne Plus Ultra, sown from middle to end of March, should be ready about the middle of July and onwards. The tall Marrows, sown first and third week in April and first and third week in May, should produce a supply from the middle of July till the close of the Pea season. But most people sow second-earlies once or twice in June, and I have had the late Marrows do well sown as late as the middle of June. As to the manner of planting:

The Late Marrow Peas. — The crop is so important that every expedient should be adopted which can in any way enable it to pass through its difficulties without much suffering. Men may be seen labouring heavily with watering-pots in a dry, hot time, when less than half the time and labour in preparatory work at the right season would have given more satisfactory results.

Mark out the sites in January or February, open a trench, and fill in with a manurial compost—Peas dislike rank manure—of the usual decaying matters which accumulate about a garden, mixed with a proportion of manure from the stables or pigsty, with a little soot, etc.; blend the whole together and work into the trench, where the Peas will by-and-by be planted. When this is done early in the season, the added compost has become mellow and in a fit condition for the roots of the plants to work among at once. As much of the soil taken out of the trench may be thrown back and worked up with the compost as will fill the trench to the original level. The bottom of the trench will also be stirred up and incorporated. All the stations required for the late Peas should be got ready at the same time, and a stump driven down at the end of each row, so that when one wants to put in a row of Peas all he has to do is to place a line along the line of stumps, draw a drill about 3 in. deep, and plant the Peas.

Sowing and Gathering.†—The large Marrow Peas should be allowed room to branch out, not only below the surface, as the preparation of the site suggested above will provide for, but also above the ground, as must be provided for by thin planting. From 2 to 3 in. apart all over the drill will not be too much space to allow; and this will necessitate the careful distribution of the seeds individually by hand. In dry weather the drills should be soaked with water, and then covered with dry soil drawn from the drills. If mice are likely to be troublesome, dress the seeds with red lead, or else keep traps set in the neighbourhood of the Pea row. To do the late Peas justice the rows should be isolated,

* See also p. 766.
† See also p. 767.
with other dwarf crops between. Mulching with manure is a valuable expedient, and, in connection with a good preparation of the land at this season, should render watering, even in the driest weather, unnecessary. The mulch, which should consist of half-decayed stable manure, should be spread on both sides of the rows of Peas 18 in. or so wide and 3 or 4 in. thick. Gathering should be done carefully, and as soon as they are fit for use; and in many cases a second crop of young shoots and blossoms will put forth, and a second crop of Peas, which will be very useful, will be produced.

**TALL AND DWARF PEAS.**—Dwarf Peas are very useful where sticks or supports cannot easily be obtained; but where sticks do not cost much, for the main crop tall Peas are best, as they are more prolific. In the case of all Peas requiring support—and, if possible, all Peas, even those of dwarf habit, should be supported—the sticks should be placed to the rows early, and the tops of the sticks should be levelled with the shears, and the pieces cut off be used between the large sticks at the base, to prevent the plants straggling through, and to give them an upward tendency.

Nearly all market-gardeners near London grow Peas largely; and although French Peas are sent to market early in May, and sold at cheaper rates than English growers could afford to produce them, preference is always given to home-grown Peas, for which there is always a good demand until about September. Until the end of October, however, fine examples of the Ne Plus Ultra type may be obtained ready shelled in the market, the produce in many instances of the Surrey fields, Bedfordshire, Essex, and adjoining counties, from whence come the greater bulk of both early and mid-season Peas to Covent Garden. In making early sowings it is a practice with market-gardeners to choose a fine day to break down the ridges (the ground having been previously manured and cast into ridges), measure off the lines and draw drills in the forenoon, and to leave them open till the afternoon, so that the soil in them may dry a little, and become thereby warmer; then to sow the seeds and cover all up before the evening. The drills vary from 2 to 3½ ft. apart, according to the vigour of the sorts which are to be sown. In the close lines, Lettuces or Spinach are used as inter-crops, but in the more distant ones Cauliflower is the crop usually planted. In many instances, the first sowing of Peas is made in December on a warm border; but, considering that they must be sown a little deeper than in January, and the risks to which the seeds are liable from mice, birds, insects, and damp, it is a much-disputed point among good growers whether the December sowing has any advantage over that made in January, many contending that the produce of the latter is quite as early as that of the former, and the crop less subject to risks. Different growers have a preference for different kinds; but the early dwarf kinds are universally the most desired, on account of their quick returns, the small space they occupy, and because they require no stakes.

Peas are seldom staked in market-gardens, the haulm being allowed to lie on the ground. Gathering is a matter well attended to, as the oftener the pods are picked when full the longer do the plants continue to bear. Most market-gardeners save their own seed, and some grow Peas for seed only; in this case

* See also p. 767.
the haulm is frequently shifted from one side of the row to the other in order to prevent the pods from rotting, or from being destroyed by snails, and to expose them to the air and sun, and thus cause them all to ripen alike. When ripe, the haulm is pulled up and dried, and taken indoors to be cleared of its seed during wet weather.

USES.—The seeds are eaten boiled, either in the green or the dried state, and the young pods of the edible-podded kinds are used in the same way.

SHELLING PEAS


I. Round or Smooth Peas

A. TALL CLIMBING VARIETIES

Tall Round or Smooth White-seeded Peas

First and Best, or Prince Albert, Pea.—Stem slender, 2 to over 2½ ft. high, commencing to flower at the fifth or sixth joint, and producing from six to eight tiers of pods; flowers usually
SHELLING PEAS

solitary, white, and of medium size; pods straight, about 2 in. long, somewhat square at the end, each containing from five to seven very round peas, which are slightly green or sometimes salmon-coloured when ripe. A peculiarity of this variety is that the flower, which makes its appearance lowest down on the stem, often withers without expanding, and sometimes, when it does open well, it is not until after the flower at the joint above it has come out. This variety is the earliest of all the kinds commonly grown in France. In England a sub-variety, named Dillistone's Early, is grown, which is three or four days earlier, but the plant is slenderer and less productive. The present variety is the best for an early crop in the open air.

Rural New Yorker Pea.—The American variety known under the above name comes so very near to the Albert Pea that it can scarcely be called a distinct variety. It flowers one or two days later than the Albert, but the pods are ready for use at the same time.

Lightning Pea.—A very early variety, 30 to 36 in. high, with rather slender single stem, podding close to the soil like all the earliest varieties. It resembles somewhat the Prince Albert Pea; and bears usually seven or eight tiers of solitary long-stalked flowers. The pods are 1½ to 2½ in. long, straight, rounded at the end, well filled, containing from six to eight round salmon-coloured peas.

Sangster's No. 1, or Improved Early Champion, Pea.—Probably the offspring of the First and Best, and somewhat larger and more productive, but not quite so early. It usually comes into flower two days later. It often produces the pods in pairs, and they are somewhat longer and broader than those of the preceding kind. The peas are white and round. This variety is very liable to degenerate, and it should be very carefully isolated, when grown for seed purposes, to keep it true. In the vicinity of Paris it is rather extensively grown for market supply. It is not so productive as the Early Emperor Pea, but has the advantage of coming in four or five days earlier.

Daniel O'Rourke Pea.—Stem 2 to 2½ ft. high; leaves somewhat larger, rounder, and lighter coloured than those of Sangster's No. 1; flowers white, rather large, solitary, commencing to appear at the sixth joint of the stem; pods somewhat longer and broader than those of Sangster's No. 1; peas rather large, becoming a greenish white or salmon-colour when ripe. This variety is quite as early as the preceding one, and about equally good. The two kinds are very closely allied, and are sometimes confused with each other, although a well-marked difference may be observed by any one who studies them carefully. The Daniel O'Rourke may be easily recognised by the stems terminating abruptly above a
leaf which is nearly as large as the others, instead of having at the end one or two small-sized leaves, as is usually the case in the two preceding varieties.

**Very Early May Pea.**—Resembles Caractacus, and flowers at the same time; is a little later and more productive. The pods are produced in pairs; and the stems are not above 3 ft. or so in height. They bear pods very low down, and have often as many as nine tiers of flowers. The pods are from 2½ to 3 in. in length,

![Image of Sangster's No. 1 Pea and Daniel O'Reourke Pea](image)

straight, blunt at the ends, and contain six to eight small salmon-coloured seeds.

**Emerald Gem Pea.**—Stem 25 to 30 in. high, long and jointed, with medium-sized foliage, resembling that of Prince Albert Pea, but is a little larger, and besides, both in the stems and pods, has a peculiar glazed vivid green colour, without any of that glaucous, bluish appearance of the other Peas. The flowers are white, most often solitary. The pods are straight, with the same glazed look as the other parts. They contain from six to eight medium-sized round peas, sometimes slightly wrinkled and of a salmon tinged white colour when ripe.
In culture and productiveness it is strikingly like the three preceding varieties; but owing to the peculiarity of colour above-mentioned is easily distinguished from all the other Peas.

Early Emperor, or Double-blossomed, Frame Pea (*Pois Michaux de Hollande*)—Stem something over 3 ft. in average height; leaves and stipules larger than those of Sangster's No. 1, and noticeably darker and more glaucous green in colour; flowers white,

medium-sized, almost always in pairs, and commencing to bloom at about the eighth joint of the stem, which usually carries from six to eight tiers of them; pods short, seldom over 2 in. in length, but very well filled, each containing eight or nine medium-sized nearly round peas, which become very white as they ripen. This variety is one of the most suitable for growing in the fields for market supply. It is early, very productive, and very hardy. In the neighbourhood of Paris it is not usually staked by those cultivators.
who grow it on a large scale. They sow it in drills about 20 in. apart, and leave the plants to themselves. The tendrils of the leaves become intertwined, so that a whole drill is like one plant, and, should it incline to right or left, the stems turn and grow erect, mutually supporting one another. The flowers soon make their appearance, when the cultivators pinch the stems above the fifth or sixth flower. This forwards the growth of the first pods and increases their size. When stakes are scarce, the same might be done in kitchen-gardens.

**Ruelle Michaux Pea.**—Stem usually simple, rather thick, 3 to 4 ft. high. The leaves and stipules are much larger than those of the preceding kind, and a lighter green. The flowers are very white, large, and often solitary. They begin to open at the ninth or tenth joint of the stem, which carries about ten tiers of them. Pod straight, broad, somewhat blunt at the end, and containing seven or eight white, round, large peas. This variety requires a little more attention, when growing, than the preceding one. Its peas are larger and handsomer, but it is not so early.

**Early Frame Pea (Pois Michaux Ordinaire).**—At first sight this variety does not seem to differ much from the Early Emperor. It might even be described as a sub-variety, which is harder, a little earlier, and continues bearing for a longer time. The leaves are exactly like those of the Early Emperor, save that they are a little larger; but the flowers, which are always in pairs, do not commence to open before the tenth joint, and the stem carries twelve tiers of them. Pods straight, rather narrow and small, but very well filled; peas very round, white, slightly salmon colour, and of medium size. This variety is almost always branched; that is, it produces shoots from the axils of the leaves immediately under the first flowers, which soon flower themselves. These branches or secondary stems grow particularly strong when, from any cause, the main stem above them has been either wholly or partially destroyed, but they always produce fewer pods than the main stem.

Some years ago a variety was much grown, and still exists in certain localities, under the name of *White Branching Pea*. This comes very near the Early Frame Pea, but is especially remarkable for the vigorous growth of its secondary shoots, or branches, and their abundant and continuous yield of pods. If the Early Frame Pea, however, is sown rather thinly, and the pods are gathered as soon as they are fit for use, it will yield almost as abundantly and as long as the White Branching Pea.

**Leopold II. Pea.**—Stem usually simple, about 3 ft. high; leaflets and stipules pale green, finely spotted with gray, oval, and rather elongated; flowers white, almost always produced in pairs, and rarely commencing to open before the twelfth joint; there are
seldom more than six tiers of them on a stem; pods long, straight, pale green, each containing seven or eight white, very round, medium-sized peas. This variety comes into flower five or six days after the Early Emperor Pea. A peculiarity of it is the rapidity with which the pods form and fill. It seldom flowers longer than a fortnight, and the pods are all gathered in about the same time, after which the plants may be cleared off and replaced by something else—a great advantage in market-garden culture.
Early Clamart Pea.—Stem 4 to 5 ft. high, generally branching above the first pods, which are produced at the tenth or twelfth joint. The pods are usually in pairs, and are preceded by very white medium-sized flowers. They are distinguished from the pods of the ordinary Clamart Pea by being somewhat longer, paler, and considerably curved. There are, on an average, ten tiers of them on a stem. They are very well filled, each containing from seven to nine peas, which very soon swell so large as to touch and mutually flatten one another on two sides. They retain this shape when ripe, at which time they become almost wrinkled, and white with a faint green tinge. This variety comes in almost at the same time as the Early Frame Pea, and continues to yield nearly as long. The two kinds are very easily distinguished from each other by the difference in the shape of the pods and in the shape and colour of the peas.

Étampes Wonder Pea.—Stem usually single, long jointed; leaves inclined to be broad, and very light green; stipules exceedingly large and broad. In general appearance it resembles the Laxton's Supreme Pea, but is not quite so tall. Flowers generally in pairs, commencing to bloom at the tenth joint of the stem, large, white, often having the standard scalloped or toothed on the margin. The pods grow very rapidly, and in a few days become long, broad, and slightly curved towards the end. They swell considerably before the peas are fully grown, in which respect the plant very much resembles Laxton's Supreme; but the two varieties differ entirely in the seed or peas, these being large and green in Laxton's Supreme, while in the Étampes Wonder they are medium-sized and white. The pods of the latter variety are well filled, each generally containing from ten to twelve peas, which become very round and white when ripe. The plant usually carries from seven
to twelve tiers of pods. This variety must be classed between the Leopold II. and the Scimitar Pea, having the pod of the Scimitar and the size and earliness of the Leopold II. It has the peculiarity of maturing all its pods at about the same time.

**White Scimitar Pea**

*Pois d'Auvergne*.—Stem almost always branching, and averaging about 4 ft. in height; leaflets and stipules oval, rather pointed, light green, sometimes tinged with yellow; flowers almost always in pairs, white, medium-sized, commencing to bloom at about the twelfth joint of the stem; pods long and slender, at first slightly curved backwards, then becoming straight, and finally curved forwards in the shape of a pruning-knife. The concave curved line, corresponding to the edge of the knife, is that along which the peas are attached inside the pod. This is the front part of the pod. The opposite or convex part is the "back" of the pod, and the peas are never attached to the pod on that side. The pod of the White Scimitar Pea is very well filled, and contains from nine to eleven, and sometimes twelve, medium-sized peas, which are remarkably round, rarely flattened, and, when ripe, are white, slightly tinged with salmon colour. This variety comes into flower from eight to ten days later than the Early Emperor, and yields a very constant supply of pods for more than a month. It is a very good kind,
remarkable for the fine quality of the peas, and grows well in ordinary soil.

**Long-podded Improved Scimitar Pea.**—An improved form of the White Scimitar, ripening mid-season, not above 4 ft. or so in height, with emerald-green leaves, and stems carrying from five to

Seven tiers of long-stalked flowers, produced in pairs. Pods about 3½ in. long, pointed and curved at the end, well filled, containing seven or eight small round salmon-coloured peas.

**Sabre Pea.**—Stem stout, very often branching, from about 4 to 4½ ft. high; leaflets and stipules very large, rather round,
somewhat blunt, glaucous and gray-green; flowers both solitary and in pairs, large, white, usually only commencing to bloom at the twelfth or fourteenth joint of the stem. The plant comes into flower at the same time as the White Scimitar. Pods broad, pale green, curved backwards in an opposite direction to that of the White Scimitar Pea—that is, having the peas attached along the inside of the convex line formed by the front of the pod, the back of the pod in this variety being concave. This Pea does not continue bearing so long as the White Scimitar, its period being about three weeks. The stem carries ten or more tiers of pods. The peas are white, large, and somewhat oblong in shape. This variety was some years ago in great request in the Central Market at Paris, but it does not appear to be so much in favour there at the present day.

Marly Pea.—A vigorous, often branching plant, and in its general appearance rather like the Ruelle Michaux Pea, but almost always producing the flowers in pairs, and only commencing to bloom at about the twelfth joint of the stem. Pods straight, about 3 in. long, each containing seven or eight large round white peas, of a slightly oblong shape, rather like those of the preceding variety. The variety is moderately productive and early, but is chiefly distinguished for the large size of the peas, as are also several other varieties which are closely allied to it, but are seldom found in cultivation at the present day. Of these varieties
we may mention the following:—**Gouvigny Pea.**—The pods of this variety are longer and narrower than those of the Marly Pea. **Lady's-finger Pea.**—In this variety the outside of the pods is swollen over each of the peas. Lastly, the **Square White Pea.**—The peas in this variety, being closely pressed together in the pod, are usually flattened on two sides, like those of the Clamart Pea. In their habit of growth the three varieties just mentioned very much resemble the Marly Pea. They have thick stout stems and very large leaves and stipules. They come in about the same time as the White Scimitar—that is, half-late. Of the four kinds mentioned in this article, the Marly Pea is the earliest.

**Giant Saumur Pea.**—A tall late variety, 5 or 6 ft. in height, resembling somewhat the Giant Marrow Pea. The stems are stout, close-jointed, and bear seven or eight tiers of flowers produced in pairs. The pods are 3 to 4 in. long, curved, and contain from six to nine very large, square, salmon-coloured or milky white seeds. Ripens at about the same time as the Late Clamart Pea.

**Late Clamart Pea.**—Stem tall, tufty, branching, 5 to 6 ft. high; leaves medium-sized, light green, not so glaucous as those of most other varieties; flowers white, medium-sized, almost always in pairs; pods straight, or very slightly curved, of uniform width, and abruptly narrowed at both ends. The stem is single up to the fourteenth or fifteenth joint, after which it divides into two or three, rarely four, branches.
The flowers first appear at about the sixteenth or eighteenth joint. The pods are seldom more than about 2 in. in length; they are generally well filled, and the peas are pressed so closely together that they are quite flat on two sides. They retain this shape when ripe, and are then white or slightly greenish. There are usually from five to eight peas in each pod. The main stem carries from seven to nine tiers of pods, and the branches have seldom more than four tiers.

Giant Marrow, or Royal Victoria Pea.—A very tall variety, 5 to 6½ ft. high. Stems thick and stout; leaves large, numerous, light green; flowers white, large, almost always in pairs; pods usually commencing to appear at about the fifteenth joint of the stem, rather large, broad, square at the end, and very slightly curved. The stem carries about ten tiers of pods, and does not usually branch. Each pod contains from five to seven peas. These are somewhat elongated in shape, white, and, when ripe, are flattened or more or less hollowed, as if they had a tendency towards the shape of the Wrinkled Peas. This variety is one of the latest. It comes into flower at the same time as the Late Clamart Pea.
In England the name of *Marrow Peas* is applied to all the varieties which have very large tender Peas, including the Wrinkled as well as the Smooth or Round-seeded kinds.

**Tall Round or Smooth Green-seeded Peas.**

**Express Pea.**—Stems slender, 23 to about 28 in. in height, with light, rounded, glaucous green foliage, and white, solitary flowers appearing usually from the fifth or sixth joint. The pods are straight, square at the ends, and contain from five to eight small, round peas of an intense blue-green colour when ripe. The Express Pea closely resembles the Prince Albert Pea, except that the colour is more glaucous and rather darker, and the seed decidedly more glaucous. It is also three or four days later, and more productive. Though of recent introduction, it is now a favourite with growers.

**Blue Alaska Pea.**—A very early Pea, about 2½ ft. high, rather taller and lighter green than Express, but otherwise differing little from it. The stems carry eight tiers of long-stalked solitary flowers. The pods are $2\frac{1}{2}$ to $3\frac{1}{2}$ in. long, straight, rather swollen, blunt at the ends, and contain usually six green, round, or slightly flattened peas, a little larger and more coloured than those of Express Pea. This variety is better suited for dry, warm climates than Express.

**William the First Pea.**—A rather slender climbing Pea, with slight yellow-green leaves. Stems thin, rather long jointed, almost always single, commencing to flower at the seventh or
eighth joint, and carrying from seven to ten tiers of pods. Pods mostly solitary, dark green, from 2 to nearly 3 in. long, narrow, curved like a pruning-knife, generally very well filled, and borne on very long stalks. Each pod contains from seven to ten peas, of a deep green, very closely pressed against one another, and flattened on two sides when ripe. This variety is not so early as Prince Albert, but it is earlier than the Early Emperor, and continues bearing for a remarkably long time. Its fresh green peas are of a fine colour and excellent flavour. In England this variety is one of the most highly esteemed of early Peas.

**Early William Pea.**—A variety which requires to be staked, although scarcely 3 ft. in height. The pods are very large, and shortly curved like a pruning-knife. The peas are fairly large, angular rather than wrinkled, and dull olive-green. This variety
has been raised by Mr. Laxton, and is one of the best; it is very productive, and as early as Prince Albert, Express, The Shah, etc.

Green Hundred-for-One Pea.—A vigorous variety, from 3 to 4 ft. in height, with very glaucous leaves and stems, which continue green when dry. The flowers are in pairs, and in seven to nine tiers. The pods are \( \frac{3}{4} \) to \( 4\frac{1}{2} \) in. long, very glaucous, slightly curved, and contain from six to eight medium-sized, light, ashy green peas. It is a half-late and extremely productive variety, a plant often producing twenty pods and over, containing as many as eight seeds in each pod.

Laxton’s Supreme Pea.—This variety was one of the first raised by Mr. Laxton, and it remains one of the best. It is hardy, rather productive, and remarkable for the handsome appearance of the pods and peas. It quickly came into favour with the cultivators around Paris soon after its introduction in 1869. Stem about \( 4\frac{1}{4} \) ft. high, usually simple and glaucous; leaflets and stipules rather large, and pale yellow-green; flowers generally solitary, green at first, then white, and commencing to bloom at about the twelfth joint of the stem, which usually carries from six to eight tiers of them; pods from about 3 to nearly 4 in. long, dark green, straight, with a short and abruptly curved point; peas large, somewhat oblong in shape, sometimes misshapen from the great pressure which they undergo in the pods, and remaining of a dark green colour after they are ripe. This variety comes into flower a day or two earlier than the White Scimitar Pea, but does not continue bearing so long, usually not longer than three weeks. Peculiar to
SHELLING PEAS

this Pea is the manner in which the pods swell, long before the peas attain any size, and, while these are very small, becoming inflated to such an extent that the width is greater than the depth.

**Three-podded Pea.**—A late variety, with stout stems, about 4 ft. in height bearing five or six tiers of flowers, mostly produced in bunches of three at the tops of the stalks and set freely; the pedicels often provided with a foliaceous and toothed bractea. The pods are small, thin, $2\frac{1}{2}$ to $3\frac{1}{2}$ in. long, pointed, much curved at the end, well filled with eight or nine small, round, smooth, bluish green peas.

**Tall Square Mammoth, or Normandy, Pea.**—Stems thick, very stout, almost always branching, from 5 to $6\frac{1}{2}$ ft. high; leaves
large, rather closely set, and of a dark, somewhat glaucous, green; flowers largish, always in pairs, of a greenish white colour; pods very broad, between 2 and 3 in. long, very slightly curved, and narrowed from the middle to both ends. They do not commence to appear lower than at about the eighteenth to twentieth joint of the stem. Each branch seldom carries more than five or six tiers of pods, but, as the plant usually has three or four branches, the produce is considerable. Each pod generally contains from four to six peas, which are large, very much flattened at the sides, somewhat wrinkled, and of a grayish green colour when ripe.

B. Half-Dwarf Varieties

Smooth or Round White-seeded Peas

**Bishop’s Early Dwarf Pea** (*Pois Nain Hâtif, Pois Lévéque*).—A dwarf, yet not very dwarf, variety, 20 in. to 2 ft. high. Stem rather thick-set, thin at the base, and somewhat zigzag in growth; leaves medium-sized, and rather dark green; stipules rather small than large, and very much toothed at the base; flowers white, medium-sized, sometimes solitary and sometimes in pairs, commencing to open at about the tenth or eleventh joint of the stem; pods comparatively large and broad, from about 2 to over 3 in. long, slightly curved, each usually containing from five to seven peas, which are white, sometimes green, large, and slightly square in shape. The stem usually carries seven or eight tiers of pods, and occasionally has one or two branches which are often sterile.

**Bishop’s Long-pod Pea.**—This variety seldom grows higher than from 20 in. to 2 ft., the stem having one or two branches immediately below the twelfth joint, at which place the flowers usually commence to appear. Flowers white, medium-sized, opening not very freely, and as often solitary as in pairs; pods rather long—3 in. or more—straight, somewhat pointed, each containing
from six to eight peas, which are nearly round, pale green, becoming white, quite round, and of medium size when ripe. This variety is about as early as the preceding one, from which it differs but little. Both are very good kinds for a main crop in the open air.

**Dwarf Dutch Pea** (*Pois nain ordinaire*).—A dwarf, compact-growing kind, seldom exceeding from 20 in. to 2 ft. in height. Stems rather slender, zigzag in growth, with numerous closely set joints, and usually branching; leaves numerous, small, stiff, and slightly twisted; flowers almost always in pairs, and commencing to open at about the twelfth joint of the stem; pods seldom more than 2 in. long, slender, square at the end, very slightly curved, each containing from six to eight peas, which are very closely pressed against one another, and are consequently flattened on two sides when ripe. They are remarkably small, somewhat angular in shape, and of a slightly green tint. The main stem carries about eight tiers of pods, and the branches have from two to four tiers each. This variety has a remarkably compact appearance when growing, and the very numerous white flowers are effectively relieved by the very green and tufted foliage.
Early Dwarf Clamart Pea.—A nearly dwarf variety, scarcely over 2 ft. or as much as 2½ ft. in height, and erect enough to dispense with stakes. The pods are numerous, in pairs, and of medium size, slightly curved, and well filled. The peas are square, large, tender, and sugary. It is half-early, coming in immediately after the early sorts; it is a good Pea for field culture.

Smooth or Round Green-seeded Peas

Imperial Dwarf Blue Pea.—A half-dwarf kind, from 2 to 2½ ft. high. Stem stout, rather thick-set, and of zigzag growth, especially at the base; leaves rather slender, with oval-pointed leaflets, of light green colour, entirely free from any glaucous tint or grayish markings; flowers usually in pairs, almost green, commencing to bloom at about the twelfth joint of the stem, and above one or two branches which are seldom of any great size; pods about 2 in. long, rather narrow, well filled, faintly curved like a pruning-knife blade, each containing six or seven peas, which, when ripe, are large and closely pressed against one another. They continue quite green, and are generally very full, but slightly square or angular. The main stem carries from six to eight tiers of pods, and the branches rarely have more than three tiers. This variety may be infallibly distinguished from all others, when it comes into bloom, by the peculiar, almost green, colour of its flowers, which, even when quite fully expanded, are veined and tinged with green, like the unexpanded flowers of all kinds of Peas.

Laxton's Fillbasket Pea.—A half-dwarf kind, 2½ to 3 ft. high. Stem rather thick-set, short jointed, often producing two or three branches which grow nearly as tall as the main stem, and generally issue from about the tenth or twelfth joint. The first flowers appear at about the thirteenth or fourteenth joint, and are greenish white and often solitary. The main stem carries six or seven tiers of them, and the branches only from three to five tiers. Pods about 3½ in. long, rather narrow, curved like a pruning-knife blade, very much pointed at the end, and exceedingly well filled, each containing from seven to ten peas, which are dark green, large, square, and, when ripe, a clear, pale green. This variety is easily
distinguished by its leaves being a light yellow green, narrow, slight, and very much waved at the edges, especially those at the top of the stem.

**Gladiator Pea.**—A half-dwarf variety, with stems 27 or 28 in. high, with two or three branches carrying six or seven tiers of short-stalked flowers usually produced in pairs. The pods are curved, 3 to 4 in. long, and well filled, with seven or eight round dark green, fairly large, and slightly wrinkled peas. A half-early, productive variety, rather like Fillbasket.

**Dwarf Blue Prussian Pea.**—A half-dwarf variety, from 2 ft. to 2 ft. 4 in. high, thick-set, and very branching. Leaves rather large, rounded, and glaucous; stipules very much blotched with
gray; stem stout, of zigzag growth, with very close joints, begin-
ing to branch at the fourth or fifth joint, and showing the first
flowers at about the tenth joint; flowers white, medium-sized,
sometimes solitary, but most usually in pairs; pods broad, between
2 and 3 in. long, slightly pointed at the end, and seldom very well
filled, each usually containing not more than five or six peas, which
are large, very much flattened, slightly irregular in shape, and of
a pale green, bluish when ripe. The stem generally carries seven
or eight tiers of pods, and the principal branches have four or five
tiers. This is a very hardy and productive variety, but rather late
than early. It is grown on a large scale for the dried peas, which
are usually met with in commerce under the name of Green
Noyon Pea.

Blue Beauty Pea.—Quite dwarf, very branching, not much
over 15 in. in height, and inclined to lie down. The pods are
rather short, broad, with rounded, slightly oblong peas, of a
glaucous almost blue colour when ripe. It is remarkable for the
beauty and size of its peas.

C. Dwarf Varieties

Smooth or Round White Peas

Early Dwarf Frame Pea.—Stem exceedingly short, seldom
more than from 8 to 10 in. high; joints very close; leaflets and
stipules rounded, dark green, finely marbled with a gray tinge; flowers
white, very small, usually solitary, commencing to bloom at the seventh
joint, seldom opening fully, and often not extending outside of the leaves;
pods about 2 in. long, straight, rather slender, nearly square at the end, and
very like those of the Prince Albert Pea, each containing seven or eight
white, round, medium-sized peas. Though dwarf, it is rather productive,
excellent for frame culture, and only two or three days later than
Sangster’s No. 1.

Dwarf Very Early Annonay Pea.—Stems very short, the
joints pretty close, less, however, than in the preceding. The
flowers are small, white, and short stalked, making their appearance
at the sixth or seventh joint. The pods and seeds are like those
of the Early Dwarf Frame Pea. It may be grown under glass, but
is well suited for open ground cultivation.
Couturier Dwarf Pea.—Stems short, very branching, with small gray-green leaves. The flowers are white, usually in pairs, commencing to bloom at the eighth joint of the stem. The pods are small, straight, thin, short, but well filled. The Peas are round, and regular in shape; when ripe quite smooth, and slightly tinged with salmon colour, like those of the Scimitar Pea, which they resemble, except that they are smaller. It is midway in earliness between the two preceding and the Brittany Dwarf.

Very Dwarf Brittany Pea.—A very dwarf Pea, with slender, rather dark green leaves. Stems very short jointed, of zigzag growth, commencing to flower at about the twelfth joint. The two joints immediately below generally produce branches which are often sterile. Flowers in pairs, white, well opened, but very small; pods seldom over 2 in. long, dark green, very slender, and slightly curved like a pruning-knife blade, each containing from five to seven peas, which are
square from pressure and fill the pods completely. The main stem carries from six to ten tiers of pods, and the branches seldom have more than two tiers. This variety is about as early as the Early Frame Pea. The peas, when ripe, are small, squarish, slightly tinged with salmon colour, and sometimes green.

**MacLean's Blue Peter Pea.**—A very dwarf variety, but not so compact in growth as the Early Dwarf Frame Pea. The joints of the stem are longer, being about equal in length to the stipules. Leaves a very dark glaucous green, those at the end of the stem being very much reduced in size, closely crowded together, and a very dark green; flowers rather small and slightly tinged with green, sometimes solitary and sometimes in pairs, and commencing to bloom at the seventh or eighth joint of the stem, two or three days later than the Early Dwarf Frame Pea; pods rather broad, a little over 3 in. long, each containing from five to eight peas, which are somewhat oblong in shape, very large, and, when ripe, retain their pale green, slightly bluish, tint. Owing to its dwarf size this variety may be used as an edging like the Early Dwarf Frame Pea, to which it is superior in productiveness.

**Pride of the Market Pea.**—A dwarf variety, with thick, short, pretty close-jointed stems; the leaves, especially the stipules, are very large, of almost yellow-green colour. The flowers are a greenish white, solitary, hidden amongst the foliage, commencing
to show themselves at the eighth or tenth joints. The pods are solitary, irregular, but large, equalling almost those of the Telephone Pea in size. The seed is very large, oblong, flattened, often slightly depressed on one or two sides, but not wrinkled, and in colour a bluish green sometimes tinged with darker green at maturity. When grown under conditions that are favourable, it is a very fine variety, but it is better for kitchen-garden than field culture, owing to the great size of its foliage and the time of its maturity, which makes it liable to suffer from the heat and drought of the summer, for which reason it succeeds better in sheltered gardens.
Purple-podded Pea.—A curious but not very useful variety, with dark purple-coloured pods. The seed is large, gray-green, becoming brown when cooked, which lessens its value for table use. The pods, when boiled, lose their purple colour, and become almost green, but they are tough and leathery, and uneatable even before they are fully grown.

II. Wrinkled Peas

Pois ridés

A. TALL CLIMBING VARIETIES

White-seeded Peas

Gradus Pea.—A fine early Pea with stems 2½ to nearly 3 ft. high, carrying four or five tiers of solitary flowers. The pods are large, straight or slightly curved, about 4½ in. long, and contain from five to seven large wrinkled white or slightly green Peas. This is the earliest of all wrinkled Peas, and is remarkable for the great size and fine appearance of its pods.

Laxton’s “The Shah” Pea.—A climbing Pea with a very slender stem, which is almost always single or with one or two small branches, and rather long jointed. Leaves slight, light green, tinged with gray; stipules a little darker than the leaves, and distinctly marked with gray blotches; flowers white, medium-sized, solitary, or rarely in pairs, and commencing to bloom at the sixth or seventh joint of the stem; pods very slender
at first, about 2 in. long, quite square at the end, and becoming very much swollen before ripening, each containing from five to seven peas, which are very closely pressed together, and consequently flattened at the sides, and, when ripe, are square in shape, very much wrinkled, and pure white. The stem usually carries six or seven tiers of pods. In all its characteristics of growth, habit, and foliage, this variety comes very close to Sangster’s No. 1 Pea, but differs from it entirely in the appearance of the seeds or peas. It was raised by Mr. Laxton, about the year 1875.

Carter’s Telephone Pea.—A climbing Pea, from about 3 to 4 ft. high. Leaves very large, pale yellow-green, veined and marbled with white; stipules quite remarkable for their large size; stem generally simple, but occasionally with one or two branches, rather long jointed,
and commencing to flower at about the twelfth joint; flowers white, rather large, and often solitary; pods very large and broad, sometimes 4 in. long, straight, and slightly curved towards the end like the blade of a pruning-knife, rather swollen, each containing from eight to ten very large green peas, square in shape, and, when ripe, either perfectly white or more or less tinged with green. This variety is a little later than Laxton's Supreme, and a plant seldom carries more than eight pods.

**Colossus Pea.**—A tall, vigorous half-early Pea, nearly 5 ft. in height, with very light green leaves and branching stems, bearing five or seven tiers of flowers, mostly in pairs. The pods very large, 3 to 4 in. long, flattened, straight, rounded at the end, containing eight or ten large, white or greenish, somewhat flattened and slightly wrinkled peas. It is remarkable for the beauty of its pods. In the Paris market the large-podded Peas have of late years found more favour, and the demand for them is steadily increasing.

**Knight’s Tall Marrow Pea.**—A tall-growing late variety, 6½ ft. or more high. Stems rather strong, but not very thick, long jointed, unbranched up to the twelfth joint, and commencing to flower at about the sixteenth joint; flowers white, very large, almost always in pairs; pods long stalked, large, broad, perceptibly curved, and from about 2 to over 3 in. long. The main stem carries from eight to ten tiers of pods, and the branches from three to five tiers. It is to be remarked that the joints immediately below the first flower do not all produce branches, and that the same stem does not usually produce more than two. Each of the pods contains
from six to eight large elongated peas, which, when ripe, become very much wrinkled, almost flat, and generally white or tinged with green. In this variety one of the two flowers in the pairs is often accompanied by a small rounded leafy bract at the base.

**Tall Wrinkled Large White, or British Queen, Pea.**—A very tall Pea, often over 6 ft. in height, with thick, branching, long-jointed stems, and leaves and stipules very large, smooth and of a whitish green faintly tinged with gray-green. The flowers are white, large, in pairs. The seed is large, oblong, and white and wrinkled at maturity. It is a very vigorous, productive variety, producing peas of great size and quality. Like the Wrinkled Knight Pea, it requires extra long stakes.

**Tall Wrinkled Green-seeded Peas**

**Laxton's Alpha Pea.**—This variety very much resembles Prince...
Albert in height, habit of growth, and earliness, but is distinguished from it by the paler and yellower tint of the leaves. The flowers are generally solitary, but occasionally in pairs, and begin to open at the seventh or eighth joint of the stem. Pods very long stalked, rather pointed, and very slightly curved, about 2 in. long, each containing from six to eight peas, which are small, very much wrinkled, and remaining green when ripe. A stem carries from five to seven tiers of pods. This Pea is one of the best known and most extensively cultivated of the varieties raised by Mr. Laxton, whose name we have had frequent occasion to mention.

Tall Green Wrinkled Marrow Pea.—A very tall, strong plant, with thick stems sometimes over 6 ft. in height, usually in two branches and flowering only at the twelfth joint. The flowers are white,
large, often solitary. The pods, which are very large, do not swell much even when nearly fully grown. They contain from six to nine very large light green peas, which become white and wrinkled at maturity.

Duke of Albany Pea.—A tall, stout-stemmed Pea, 4½ ft. or even more in height. The flowers commence to bloom at the twelfth joint, generally in pairs. The pods are very long, 4 to 6 in., smooth, dark green, slightly curved at the end, cylindrical when fully grown, well filled with ten or eleven very large peas, which are slightly oblong in shape, and wrinkled when ripe; of a dark green colour, but lighter if allowed to mature properly. A very good and handsome variety, only rivalled by the Telephone as an exhibition Pea.

B. HALF-DWARF VARIETIES

White Wrinkled Peas

White Eugénie Dwarf Wrinkled Marrow Pea.—A half-
dwarf variety, 2 ft. to 2 ft. 8 in. high. Stem rather slender, almost always unbranched, commencing to flower extremely low, often at the fifth joint; flowers white, medium-sized, always solitary towards the lower part of the stem, and often in pairs a little higher up; pods rather variable in size, usually 2 or 3 in. long, pointed towards the end, slightly curved like the blade of a pruning-knife, and very unequally filled, those at the lower part of the stem often containing but one pea, and seldom more than three or four, while later pods will often have seven or eight. While in the green or unripe state, the peas are large, square, and somewhat flattened at the sides; when ripe, they are very wrinkled, unequal in size, and a salmon tinted white. The stem carries from twelve to fifteen tiers of pods. This would be one of the most
productive early varieties if the first pods were better filled. It will bear for six weeks or more if the pods are gathered as they become fit.

*Green Wrinkled Peas*

**Knight's Dwarf Green Wrinkled Marrow Pea.**—This variety only differs from the White Eugénie Wrinkled Pea in having the leaves somewhat marbled and undulated, and the peas pale green.

It exhibits precisely the same characteristics of growth as the White Eugénie Pea, and especially the peculiarity of the lower pods being usually small and badly filled, while those growing from the middle of the stems are much larger and generally well filled. It is very difficult to obtain this variety quite pure at the present
time, and among the numerous varieties which resemble it, and which are often sold for it, there is, perhaps, not one that possesses the same combination of good qualities, and especially such great earliness along with such very great and continuous productiveness.

**MacLean's Best of All Pea.**—This is a half-dwarf kind, growing about \( \frac{2}{3} \) ft. high, very thick set, and with a short-jointed stem. Leaves stiff, medium-sized, and of very dark glaucous green; flowers medium-sized, white, in pairs; pods broad, from 3 to nearly 4 in. long, gradually narrowed at both ends, and usually not completely filled; stems simple to the eighth or ninth joint, then producing three or four branches, and bearing the first pods at about the twelfth joint. The main stem carries from five to seven tiers of pods, and the branches have seldom more than two or three tiers. Each pod contains from three to eight very large peas, oval in shape, and, when ripe, very wrinkled, much flattened, and a pale gray-green. This is a productive, half-late variety, of good quality.

**G. F. Wilson Pea.**—A half-dwarf variety, growing from 2 to \( \frac{2}{3} \) ft. high. Stem thick and stout; leaves very large, glaucous green, especially remarkable for the great size of the stipules and the absence of gray spots; flowers white, rather large, generally in pairs, but often solitary also, and commencing to open at about the tenth joint of the stem; pods from about \( \frac{2}{3} \) to over 3 in. long, at first very flat and exceedingly broad, but becoming narrower as the peas increase in size. The stem carries from six to eight tiers of pods. They are seldom very well filled, each usually
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containing not more than five or six peas, but these, it is true, are nearly as large as field-beans; they are oblong and somewhat flat in shape, and, when ripe, exceedingly wrinkled, flat, and a pale green. The thickness and strength of the stalks which bear the pods are a particularly distinctive characteristic of this variety.

C. Dwarf Varieties

White-seeded Wrinkled Pea

Chelsea Gem Pea.—A very dwarf, hardy, early Pea, resembling Laxton's William Hurst in every respect, except that it has white seed.

Green-seeded Wrinkled Peas

American Wonder Pea.—An exceedingly dwarf variety, seldom growing more than 10 in. high. Stem short, stiff, usually single, or only branching at the neck, and bearing rather large, rounded dark green, slightly glaucous leaves; flowers small, white; pods sometimes in pairs, but mostly solitary and commencing to appear about the seventh or eighth joint of the stem, which seldom carries more than five tiers of pods. These are straight, very much swollen, 2 in. or more in length, comparatively broad, and exceedingly well filled, each containing from six to eight large flat peas which, when ripe, become very much wrinkled, rather flat, and a pale bluish green.
English Wonder Pea.—A dwarf Pea, not much over 14 in. in height, with short and very branching stem bearing five or six tiers of flowers in pairs. The pods are medium-sized, straight, rounded at the end, and well filled with from six to eight rather small, flattened, wrinkled green peas. In productiveness this variety is both abundant and prolonged, and its quality is of the best.

Witham Wonder Pea.—Very dwarf, much like the English Wonder Pea, but not usually more than 11 or 12 in. in height. It is half-early. The stems are thick, branching, bearing pods near the soil, and five or six tiers of flowers in pairs. The pods are thin, between 3 and 4 in. long, curved at the end, well filled with eight or nine rather small, much flattened, wrinkled green peas. A very productive variety, and of excellent quality.

William Hurst Pea.—Stems short, irregular, and close jointed; the leaves and stipules small, oblong, rather stiff, of an ash-green colour. Though small, it is a vigorous and sturdy variety. The flowers are small, white, solitary, or in pairs, and start from the eighth joint upwards. The pods are thin, fairly long, much curved, and contain six to eight medium-sized glaucous green and, when ripe, much-wrinkled peas. One of the best dwarf sorts for the kitchen-garden as well as the field.

Stratagem Pea.—Very like the Pride of the Market Pea, the only difference between the two being that in the Stratagem Pea the foliage is a more vivid green, and the seed wrinkled.

EDIBLE-PODDED, or SUGAR, PEAS


In all the varieties of Peas of which we have hitherto spoken, the pod is lined on the inside with a thin but hard and tough membrane, which, contracting as the pod ripens and dries, causes it to open into two equal parts, which become twisted spirally and often project the peas to some distance. We are now about to describe a class of varieties the pods of which are destitute of this membrane, and consequently always soft and tender, and do not open when ripe, so that they may be eaten entire, the tender fleshy part of the pod becoming more fully developed in the absence of the tough parchment-like membrane.

A. TALL CLIMBING VARIETIES

Forty Days Edible-podded Pea.—A climbing variety, from 3½ to 4½ ft. high. Stems slender, rather long jointed, and commencing to flower at about the fifth or sixth joint; flowers usually
in pairs, white, and rather large; pods straight, slender, somewhat pointed at the end, very free from membrane, each containing from six to eight medium-sized peas, rounded or slightly compressed in shape, round and white when ripe. This variety very seldom branches, but carries from fifteen to eighteen tiers of pods, which are produced in succession, so that some of them may be quite ripe and dry at the base of the plant, while flowers continue to appear on the upper part of the stem. The flowering is often prolonged for more than two months.

**Tall Early Large-pod Sugar Pea.**—Raised at Verrières by crossing the Forty Days Edible-podded Pea with the Large Crooked Sugar Pea. It is a tall Pea, but not so tall as its two parents, stakes 3 ft. 3 in. long being quite sufficient for it. The flowers are white, usually solitary, the pods long, broad, and very fleshy, resembling those of the Crooked Sugar Pea. The seeds are very large, round and white. In earliness it comes between the two varieties from which it has sprung. The pods are fit for use even when they are quite fully grown. Like the Crooked Sugar Pea it produces as a rule only solitary pods; but it begins to bloom near to the ground and may thus carry quite a number of tiers of pods, without requiring extra long stakes.

**Tall Butter Sugar Pea.**—This variety is very clearly distinguished from all other kinds of Edible-podded Peas by the swollen appearance of the pods, which very soon grow to be thicker than they are broad. They are from 2 to nearly 3 in. long, and the sides, which are very fleshy and succulent, are nearly \( \frac{1}{3} \) of an inch thick. The pods are pretty deeply curved, and are sometimes solitary, but most usually in pairs. The stems grow from \( 3 \frac{1}{4} \) to about 4 ft. high, and are
rather slender and long jointed. The leaves are of a rather dark green, with whitish veins, and are almost devoid of spots. The flowers, large and white, are only solitary at the base and at the top of the stem. The stalks which bear the pods are slender, very stiff, and of medium length. Owing to the great thickness of the sides or walls of the pods, they do not bulge with the swelling of the peas, as is the case with most other varieties of Edible-podded Peas. The peas are white, very round, and rather large. This variety is almost as early as the Ruelle Michaux Pea. In the growth of the pod of the Butter Pea, as in the Edible-podded Peas in general, the soft portion or parenchyma of the pod seems to develop at the expense of the parchment-like membrane, which is wholly wanting. There is, however, this difference between the pod of the Butter Pea and those of all other Edible-podded kinds, that it is the thickness or depth of the pod which takes on the greatest development, while in the other kinds, as, for example, the Large Crooked Sugar Pea and the Giant Sugar Pea, it is the breadth of the pod which is enlarged.

**Tall Green-seeded Sugar Pea.**—A very productive variety raised in Brittany. The stem is stout, about $4\frac{1}{2}$ ft. high, bearing the pods pretty high up, in five or six tiers and in pairs. The pods are thin, $2\frac{1}{2}$ to $2\frac{3}{4}$ in. long, not very fleshy, but free from membrane, and contain six to eight small, round, quite green, smooth or very slightly wrinkled peas. A late variety, remarkable for its abundant and prolonged production.

**Large Crooked, or Scimitar, Sugar Pea (Pois Corne de Bélier).**—A tall climbing variety, 4 to over $4\frac{1}{2}$ ft. high. Stem of medium
thickness, usually branching, long jointed; leaves rather large, a pale yellow-green; flowers white, very large, well opened, commencing to bloom at the twelfth or thirteenth joint of the stem, and almost always solitary; pods very large, whitish, entirely free from membrane, often twisted, whence the variety derives its name, sometimes from 4 to nearly 5 in. long and 1 in. or more broad, each usually containing from five to eight rather large round peas, set at some distance from one another, and very pale green, becoming white and perfectly round when ripe. The main stem usually carries from eight to ten tiers of pods, and the branches have only from three to five tiers. This is an exceedingly productive variety. It comes in in mid-season, commencing to yield soon after the Forty Days Edible-podded Pea, but continuing to bear for a much longer time, and the size and fine appearance of its pods cause it to be always more sought after than any other kind, so that it is more extensively grown than any other variety of Edible-podded Peas, especially in the eastern parts of France and in Switzerland. It is rather surprising to see the comparatively low estimation in which the Edible-podded peas are held in the vicinity of Paris.

Two different forms are grown under the same name of Large Crooked Sugar Pea. The commonest is that just described. The
EDIBLE-PODDED, OR SUGAR, PEAS

other, sometimes known as the Lyons variety, is not quite so tall, is five or six days earlier, and the pods are generally solitary, but large and very fleshy.

Melting Saint-Desirat Pea. — An excellent and beautiful Pea. It resembles a Scimitar Sugar Pea, excepting that it is straight-podded. The pods are very large, tender, thick, fleshy, swelling long before the seed is fully developed.

Giant Very Large-Podded Sugar Pea. — A climbing variety with large, broad, light-coloured leaves. Stems tinged with purple, and usually from 3 1⁄2 to 4 1⁄2 ft. high; flowers purplish, sometimes solitary and sometimes in pairs; pods very large, pale green, very much twisted, sometimes over 6 in. in length and more than 1 in. broad. The two sides or halves of the pod are generally, as it were, glued together, with no space between them except that which is completely filled by the peas, the positions of which are distinctly marked on the outside of the pod, where it bulges over each pea. Each pod contains from six to ten large peas, slightly angular or flattened in shape, and light green in colour, turning to gray finely spotted with brown-red when ripe. The main stem carries from six to eight tiers of pods, and the branches, which are usually two or three in number, have hardly half that number. The pods of this variety are best for table use when young, as when they are near ripening both they and
the peas acquire the somewhat strong, hot taste which characterises all Peas with purple flowers. The peas, perfectly green when young and tender, turn gray or brown in cooking. There are two very distinct forms of the Giant Sugar Pea, one of which is taller, more vigorous growing, and at the same time later than
the other, and almost always produces the pods in pairs. The pods of the other, or earlier form, are perceptibly larger, but are usually solitary.
Under the name of *White-flowered* and *White-podded Sugar Pea*, a variety is grown in Germany which is very late, very branching, with stems from 5 to 6 ft. high, almost white or wax yellow in colour, and bearing large broad leaves of a light green colour; the stipules are marked with a circle of the same purple colour as the stem at the place where they clasp it. The flowers are in pairs and pure white; they do not commence to bloom before about the sixteenth joint of the stem. The pods are straight, pointed at the end, about 3 in. long, and pale yellow, almost butter-colour; they contain seven or eight peas, which are white and round when ripe. This is a rather productive variety, but very late and of only middling quality. It is very liable to degenerate, and then has green stems and pods.

### B. Half-Dwarf and Dwarf Varieties

**Early Dwarf Brittany Sugar Pea.**—A half-dwarf variety, from 2 to 2½ ft. high. Leaves rather slight, small, and gray and glaucous green; stem rather short jointed towards the base; flowers white, medium-sized, usually in pairs, and commencing to bloom at about the twelfth joint of the stem, immediately below which there are generally two branches of no great size, bearing from two to four tiers of pods which are most commonly solitary. The main stem ordinarily carries from seven to ten tiers of pods, which are produced in pairs, are of a pale, grayish, green colour, and are not much over 2 in. in length; they are narrow, tolerably swollen and fleshy, quite free from membrane, each containing from five to seven white peas, of
square shape; when ripe gray-white, irregular in shape, but rather rounded. The stems of this variety are very stiff, and as they are also numerous and short jointed, the tendrils interlace the plants together in such a manner that they mutually support one another, and grow erect without needing any stakes, although they attain some height. This property is worthy of note, as many other varieties which are of dwarfer growth are very much inferior to it in this respect.

**Dwarf Debarbieux Pea.**—About 3 ft. in height, with stems supporting each other by their tendrils intertwining so as to require no staking. The pods are long, slightly curved, and crowded at the top of the stems. The peas are large, round, and white when ripe. Originated in the North of France, it is a rather late variety, and fit for pulling about the same time as the Ram’s-horn or Scimitar Pea.

**Very Dwarf Dutch Frame Sugar Pea.**—A very dwarf variety, not exceeding 8 to 10 in. in height. Stem very zigzag in growth, and with joints so short that it is difficult to count
them exactly; it usually commences to branch at about the seventh joint, and to flower from the eighth to the tenth joint. Flowers of medium size, very white and often solitary. The pods, which are borne in from five to seven tiers on the main stem and in from two to four tiers on the branches, are whitish green, rather narrow, and well filled with white and large peas, from five to seven in each pod. With the exception of the "strings," which are rather tough, the pod is thick, fleshy, and quite free from membrane. This variety is almost as early as the Early Frame Pea, and, like it, is especially adapted for forcing. There is a sub-variety of it,
which most usually produces solitary pods somewhat larger than those of the ordinary kind, and has larger and darker-coloured leaves, but it possesses no special merit to recommend it in preference to the form which has just been described.

OTHER FRENCH VARIETIES

A. Shelling Peas

Pois Bivort.—A climbing variety, of moderate height and early, with smooth white peas. It hardly differs from the Early Emperor Pea.

P. Blanc d'Auvergne.—A late kind, with a tall, very branching stem. Flowers white; pods very small and narrow, but well filled; peas white, square in shape. This is a good variety for feeding cattle, but comes in too late in the season to be of any great use as a kitchen-garden plant.

P. Café.—A Canadian variety of the cattle-feeding class, tall and late, with red flowers and brown peas, which are somewhat elongated and flattened in shape.
P. de Cérons Hâtif.—A climbing and rather early kind, resembling the Early Emperor in its earliness, and the Early Frame Pea in its vigorous growth and great productiveness.

P. de Commenchen.—This is a good early Pea, coming in several days before the Early Emperor, but still not so early as Sangster’s No. 1. It has rather large leaves and broad pods, which latter are as often solitary as in pairs. The peas are smooth, white, and large.

P. Dominé.—A sub-variety of the Early Frame Pea, later and more productive than the ordinary form. It has now almost entirely gone out of cultivation.

P. Doré.—A climbing variety, coming in nearly at the same time as the White Scimitar Pea. Leaves large and very light coloured; flowers white; pods in pairs, long and narrow, and yellow-green in colour, as are also the peas.

P. Fève.—In its habit of growth this variety rather resembles the Marly Pea and its allies, but is distinguished from them by the shape of its peas, which are somewhat oblong and are marked with a black spot on the hilum.

P. Géant.—A large late Pea, with a very tall stem. Flowers violet-coloured; pods large, in pairs; peas square in shape, grayish in colour, or slightly speckled with black; hilum black.

P. le Plus Hâtif Biflore, de Gendbrugge.—An early kind, coming very near the Early Emperor, from which it is distinguished by being a little earlier and not quite so vigorous in growth.

P. Gros Jaune.—A very distinct variety, of a very light, almost yellowish, green colour in all its parts; often one-flowered. The pods and peas resemble those of the Pois Carré Blanc.

P. Gros Quarantain de Cahors.—This is a climbing variety, coming very near the Marly Pea, but a little earlier. The peas are white and large.

P. de Lorraine.—This is more a cattle-feeding than a kitchen-garden Pea. It is very late, and has very small pods.

P. de Madère.—A climbing kind, rather like the Marly Pea in its habit of growth, but distinguished from it by its peas having a black spot on the hilum. It differs from the Pois Fève in the whiteness and well-rounded form of the peas.

P. Michaux à Œil Noir (Black-eye Pea).—This variety is very distinctly characterised by the black spot on the hilum of the pea. It comes in about the same time as the Ruelle Michaux Pea, is productive, and is said to succeed very well in warm climates.

P. Michaux de Nanterre.—This is a sub-variety of the Early Frame Pea, a little later than the ordinary form, but not quite so late as the Pois Dominé mentioned above.

P. Michemolette.—A climbing, half-late kind, with large, long pods, but only moderately productive. It comes very close to the Pois de Gouvigny.
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P. Migron.—A good, very early, and productive climbing Pea, very closely allied to the English varieties, Dickson's First and Best and Daniel O'Rourke.

P. Nain Gros Blanc de Bordeaux.—A variety very much esteemed in its native district for growing on a large scale in market-gardens. It is half-dwarf, two-flowered, and a little later than the Common Dwarf Pea, but has larger pods and peas.

P. Nain Gros Sucré.—A very dwarf variety, scarcely as high as the Brittany Very Dwarf Pea. Leaves narrow and light green; flowers in pairs; pods short and rather narrow, each containing from six to eight pale, smooth, regular-shaped peas. This variety appears to be at present lost to cultivation.

P. Nain Vert de St. Michel.—A very productive variety, growing about 20 in. high, with stiff, thick-set, branching stems. The pods, which are produced in pairs, are well filled with medium-sized, round, green peas.

P. Nain Vert Petit.—A half-dwarf, very distinct kind, about 2½ ft. high, with a branching stem. Leaves rather slight and dark green; flowers very white; pods narrow, slightly curved; peas small, green, and very round. This variety is a trifle later than the Blue Prussian and the Imperial Dwarf Green Pea.

P. Quarantain.—A variety which is very generally grown in the neighbourhood of Paris, especially in the vicinity of St. Denis. It is a very early climbing kind, usually with solitary flowers, and in point of earliness does not differ much from the English variety, Dickson’s First and Best.

P. Quarante-deux.—This is grown in the same localities as the preceding variety, and comes in later. It is a good variety, with short but well-filled pods. The stems are rather slender. It is somewhat earlier than the Early Emperor. Some growers distinguish two forms of it—one as early as the Early Emperor, but yielding for a shorter period, and the other almost as early as Sangster’s No. 1. This latter form seems to be confounded with the Pois Quarantain.

P. Remontant Vert à Rames (Green Branching Pea).—A rather slender and tall-stemmed variety, almost as early as the White Scimitar Pea. Flowers often solitary; pods long and slender, each containing seven or eight round dark green peas.

P. Remontant Vert à Demi-Rames.—A half-dwarf, very branching kind, which continues bearing for a long time. It is pretty closely allied to the Pois Nain Vert Petit (mentioned above), but is distinguished from it by the somewhat larger size of the peas.

P. Ridé très-nain à Bordures.—Was in favour for growing as an edging to beds of other vegetables, until the introduction of the American Wonder and William Hurst Pea superseded it.
P. Vert Nain du Cap.—This is rather a half-dwarf than a really dwarf variety, with stiff branching stems, and flowers in pairs, exhibiting a considerable resemblance to the Blue Prussian Pea, but with peas of smaller size and not so blue in tint. It is not a very productive kind.

B. Edible-podded, or Sugar, Peas

Pois de Commenchon Sans Parchemin.—A climbing variety, not more than from 3½ to 4 ft. high, almost as early as the Early Emperor. Flowers white, large; pods medium-sized, whitish.

P. Fríolet Sans Parchemin.—A climbing kind, very much like the Ruelle Michaux Pea, but entirely free from membrane. Pods straight, somewhat swollen, and pale in colour.

P. Mange-tout Demi-nain à Oeil Noir.—A half-dwarf early variety, coming in a few days earlier than the Early Dwarf Brittany Sugar Pea. Flowers violet-coloured; pods small, slightly twisted; peas gray, not spotted, and with a black hilum.

P. Sans Parchemin à Cosse Jaune.—A half-early climbing variety, with large light green leaves. Flowers white, tinged with yellow, in pairs; pods long, rather broad, entirely free from membrane, and green-yellow; peas somewhat long in shape, and light yellow.

P. Sans Parchemin à Fleur Rouge. (Tall Red-flowered Sugar Pea).—A tall late Pea, with the stem usually branching. Flowers pale red, not violet-coloured, in pairs; pods medium-sized, narrow, somewhat curved, sometimes slightly twisted; peas pale brown, marbled with red.

P. Sans Parchemin Très Hâtif à Fleur Rouge.—A climbing variety, almost as early as Sangster's No. 1. Stem thin and slender, seldom exceeding about 3 ft. in height; flowers violet-coloured, with a red keel, commencing to bloom very low down on the stem; pods small, whitish, and very free from membrane.

P. Sans Parchemin Nain Capucin.—This variety is very much grown in the north of France, where it is highly esteemed. It somewhat resembles the Early Dwarf Brittany Pea, and is hardy, exceedingly productive, very free from membrane, and comes in half-early. The plant grows from 20 in. to 2 ft. high, and the peas are round, white, and very smooth.

P. Sans Parchemin Nain Gris (Dwarf Gray Sugar Pea).—A distinct, half-dwarf, branching variety, with violet-coloured flowers and small and very numerous pods. It has been generally superseded by the early white-flowered varieties.
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P. Sans Parchemin Nain Haîtif de Hollande.—A dwarf variety, growing from about 20 in. to 2 ft. high, and a true early kind, as it flowers about the same time as the Ruelle Michaux Pea. Pods rather small, between 2 and 3 in. long and \( \frac{3}{4} \) in. broad, slightly curved, and quite free from membrane.

P. Sans Parchemin Nain Ordinaire (Common Dwarf Sugar Pea).—This variety differs very little from the preceding one. It comes in a day or two later, but is hardier and rather more productive. Both varieties are now superseded in cultivation by the Early Dwarf Brittany Sugar Pea.

P. Sans Parchemin Ridi Nain (Knight's Dwarf Marrow Sugar Pea).—This is rather a half-dwarf than a really dwarf kind, as it grows from about 2\( \frac{1}{2} \) to upwards of 3 ft. high. Flowers white, in pairs; pods long and slender, slightly curved and pointed; peas wrinkled, small, square or flattened. This is a very distinct variety, but it has the fault of being somewhat late. The peculiarity of the pea being wrinkled adds nothing to the merit of the variety as a Sugar Pea.

OTHER ENGLISH VARIETIES

A. Round or Smooth-skinned Peas

Batt's Wonder.—A half-dwarf, rather thick-set kind, with large dark green leaves. Flowers in pairs; pods long and slender, slightly curved and pointed; peas round, sometimes square from pressure in the pod, and dark green. A productive, hardy, and somewhat late variety.

Beck's Gem.—A dwarf variety, seldom exceeding a foot in height. Stem stiff, often branching; flowers white, in pairs; pods
rather short, and broad; peas large, pale in colour. A half-early and, notwithstanding its dwarfishness, a rather productive variety.

**Bedman’s Imperial.**—A climbing variety, about 4 ft. high, with flowers sometimes solitary, and sometimes in pairs. Pods long, and very slightly curved, but blunt at the end; peas large, somewhat oblong in shape, green. Ripens half-early.

**Blue Dwarf English.**—This variety differs from the Common Early Dwarf Pea in having leaves of a more yellow tint, stem a little taller, flowers almost always in pairs, and pods not quite so long, but more pointed. This kind is suitable for growing in the same way as the Common Early Dwarf Pea.

**Blue Prussian.**—A half-dwarf kind, growing from about 2½ to over 3 ft. high. Pods generally in pairs, seldom solitary, almost straight, and square at the end; peas large, round, very green; bluish when ripe. This is one of the kinds which are most extensively grown by market-gardeners.

**Blue Scimitar.**—A half-dwarf kind, seldom exceeding about 2½ ft. in height, and of a very vigorous growth. Pods pretty often solitary, long, slender, very much curved, and pointed at the end; they are very well filled, each containing from eight to ten rather large and very green peas. This variety also is very much grown by market-gardeners.

**Charlton.**—At the present day this variety is almost lost to cultivation, but formerly it was very much grown and highly valued. In England it seems to have been the equivalent of the French *Pois Michaux de Hollande* or *Early Emperor*. It was a climbing variety, with white round peas, grown for an early crop.

**Claudit (Am).**—A half-dwarf variety, ripening mid-season, fairly productive; the stems rather slender; the pods long and numerous; the seed round and light green.

**Dickson’s Favourite.**—A climbing Shelling Pea, very closely allied to the White Scimitar Pea in its habit of growth, its earliness, and the appearance of its pods and peas. In fact, the two varieties might almost be considered identical.

**Earliest of All (Laxton).**—A tall, very early, not very productive variety, with slender stems.

**Early Emperor.**—A climbing variety, with round white Peas, almost exactly like those of the *Michaux de Hollande*, or Double-
blossomed Frame Pea. Differs from it only in being frequently one-flowered.

**Early Kent.**—This is almost exactly the kind which was formerly grown in France under the name of *Prince Albert.* At the present day the latter name is applied to a variety which comes in somewhat earlier and almost corresponds to Dillistone's Early Pea.

**Fairbeard's Surprise.**—A climbing variety, about 5 ft. high. Flowers white, large, generally solitary; pods long, rather broad, faintly curved, and rounded at the end; peas large, very green, and slightly oval in shape. A very early kind.

**Flack's Imperial.**—A half-dwarf kind, usually not more than about 3 ft. high. Pods pretty often solitary, but most usually in pairs, long and rather broad, slightly curved, and square at the end; peas large, and somewhat oval in shape, becoming slightly blue when ripe.

**Harbinger.**—This is the earliest of all Shelling Peas. It is a small-sized and exceedingly slender climbing Pea, remarkably like Dillistone's Early Pea, but coming in two or three days earlier. Flowers solitary; pods short and very slender; peas small, round, and green when ripe.

**Kentish Invicta (East's Kentish Invicta).**—This may be described as a green-seeded Daniel O'Rourke Pea. It grows to nearly the same height, is equally early, and almost equally productive. The first flowers are often abortive.

**Laxton's Evergreen.**—Having for a time enjoyed a certain amount of favour, this variety appears to be now almost entirely neglected. It is a tall climbing Pea, with a rather slender and very branching stem, bearing slender, slightly curved pods of medium length. The peas are round and small, and, when ripe, a peculiar olive-green, easily recognised.

**Laxton's Prolific Long-pod.**—A tall climbing variety, 5 ft. or more in height. Leaves very large, and light coloured; flowers in pairs; pods almost like those of the White Scimitar Pea in shape, fully one-third longer and thicker, but far less numerous; peas white, irregular in shape, not perfectly smooth, without being wrinkled.

**Laxton's Superlative.**—A tall climbing, thick-stemmed Pea. Leaves broad and luxuriant, but not tufty; pods almost always in pairs, often nearly 5 in. long, very much curved, pointed, and greatly swollen when ripe. They are not, however, very well filled, each pod only containing from six to eight small round peas, when ripe pale green.

**Laxton's Supplanter.**—A half-dwarf variety, with large, rather dark, but very glaucous leaves. Stem usually single, commencing to flower at the seventh or eighth joint; flowers white,
seldom opening fully, and usually in pairs; pods about 3½ in. long, dark green, remarkably broad, especially at the lower end, each containing from six to eight very green peas, flattened at the sides and square. They retain their deep green colour when ripe, at which time they are flat in shape, angular, and sometimes slightly hollowed on the faces. The stem usually carries from eight to twelve tiers of pods. This is a productive variety, continuing to yield for a long time.

_Laxton's Unique._—This is a very dwarf variety, growing from 12 to 14 in. high, with a usually branching stem. Pods in pairs, rather broad, tolerably curved, of medium length, and pointed at the end; peas round, rather small, half white and half pale green when ripe.

_Paradise Marrow._—A vigorous-growing climbing Pea, 5 to 6 ft. high, usually branching. Pods sometimes in pairs, but generally solitary, 4 in. long at least, broad, square at the end, and very slightly curved, well filled; peas seven to nine in each pod, large and sweet, becoming round and white when ripe.

_Peruvian Black-eye Marrow._—An American variety resembling the _Pois de Madère_. It is also very like the Marly and Gouigny Peas, but is distinguished from them by having a black spot on the hilum.

_Philadelphia Extra Early._—Another American kind. A handsome climbing, very early Shelling Pea, very much resembling Daniel O'Rourke. Peas white.

_Prizetaker Green Marrow._—A rather slender climbing Pea. Leaves medium size, glaucous green; stipules very broad, dark green, distinctly blotched with gray-green; stem slender, long jointed, sometimes single and sometimes with one or two branches; flowers almost always solitary, usually commencing to bloom at the twelfth joint of the stem; pods dark green, from about 3 to nearly 4 in. long, faintly curved like a pruning-knife blade, and quite square at the end. Each pod contains from eight to eleven smooth green peas, which completely fill it, and are usually misshapen by being pressed against one another.

_Royal Dwarf (White Russian)._—A half-dwarf variety, about 2½ ft. high, branching. Pods generally solitary, rather broad, very faintly curved, each containing five or six large peas, somewhat oval in shape, and very white when ripe.

_Shilling's Grotto._—A climbing Pea, about 4 ft. high, not branching. Pods long, narrow, and slightly curved, each containing seven or eight peas, which become white and round when ripe.

_William the Conqueror._—Half-dwarf, pretty early, pods slightly curved, resembling those of William Hurst, but its seed is round.

_Woodford Marrow._—A half-dwarf variety, with a stout, often branching stem, about 3 ft. high. Leaves dark green, glaucous;
PEAS

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pods sometimes solitary, sometimes in pairs, long, rather slender, and of a dark green colour. Each pod contains seven or eight peas, which, from being closely pressed against one another, are square, and, when ripe, olive-green, like those of Laxton's Ever-green Pea.*

B. Wrinkled Peas

Abundance (American).—Comes pretty near Stratagem, and apparently not superior to it.

Admiral (Am.).—A tall variety, somewhat earlier than our Knight's Wrinkled Pea; pods blunt at the end, produced in pairs, slightly curved; seed white, wrinkled.

Admiral Dewey (Am.).—Resembles very much the Telephone.

Alderman.—Comes near the Duke of Albany, but the pods are more regularly produced in pairs.

Ambassador.—A tall variety; resembles Duke of Albany.

Captain Cuttle.—A half-dwarf variety, with large glaucous leaves; pods large, regularly produced in pairs; seed green and wrinkled.

Celebrity.—A tall variety; resembles very much Duke of Albany.

Champion of England.—Of medium height, very branching; pods produced in pairs; seed green and wrinkled.

Connoisseur.—A vigorous kind, rather late, but productive, and considered to be of exceptionally fine quality. Notwithstanding its high character, it does not appear to be very much grown.

Criterion.—A climbing variety, very productive, half-early, about 4½ ft. high, with rather slender stems, scanty leaves of pale green colour; pods long, straight, well filled; the peas remain green, and become much wrinkled at maturity.

Crown Prince (Am.).—A dwarf variety, resembling somewhat the White Eugénie, but with shorter and broader pods.

Daisy.—A late dwarf variety, with wrinkled seed; leaves light green; resembles very much Pride of the Market.

Dr. Hogg.—An excellent, early, and fairly productive climbing variety, with a slender stem, seldom exceeding 4 ft. in height. Leaves slight; pods usually solitary, long, very much curved, and exceedingly well filled; peas large, square, and remaining green when ripe. This variety is at least as early as the Early Emperor.

Dr. MacLean.—A half-dwarf variety, with handsome, long, curved pods, about 3 in. in length, but not very numerous and not always well filled. A half-late kind.

Duke of York.—Pretty early, 2½ ft. or so in height. Pods often produced in pairs, broad and long; seed green and wrinkled.

* Select List of Peas (Early Dwarf Varieties), see pp. 768, 769.
Early Maple.—A small slender variety, with purple-coloured flowers, remarkable for nothing except its very great earliness. It comes into flower about the same time as Sangster's No. 1.

Exonian.—A tall, very early, and very productive variety; leaves dark green; seed pale green and wrinkled.

Gardener's Delight.—A climbing, tall variety; stems very branching, but rather slender; few leaves; pods short, broad, always in pairs, and containing from five to eight large peas, which become white and wrinkled when ripe. Continues bearing for a long time.

Giant Emerald Marrow.—Very closely allied to Knight's Tall Marrow, but distinguished from it by the light green of its leaves, which glisten like those of Sutton's Emerald Gem. It is a rather late kind, with large white wrinkled peas.

Hair's Dwarf Mammoth.—A half-dwarf variety, exceedingly vigorous. Stem thick and strong, about 2½ ft. high, and often branching; pods in pairs, long and broad, very slightly curved, and well filled; peas green, wrinkled.

Hay's Mammoth (Tall White Mammoth, Ward's Incomparable).—A vigorous-growing climbing Pea, attaining a height of 6½ ft. Stem thick and stout, generally branching; pods usually in pairs, long, broad, nearly square at the end, but very much narrowed towards the stalk; peas white, wrinkled. This is a late variety, but continues bearing for a long time, often until very late in autumn.

John Bull.—A very handsome, half-dwarf Wrinkled variety, with fine long pods and green peas. It comes in a little earlier than MacLean's Best of All Pea.

Kelvedonian.—A tall, half-early variety, less productive than Duke of Albany; pods broad, long, straight; seed green, wrinkled.

King Edward VII.—A very distinct kind, 19 or 20 in. high; leaves light green, curled; pods dark green, slightly curved; seed green, wrinkled.

Laxton's Marvel.—A half-dwarf variety, with long, slightly curved pods; and large green wrinkled peas.

Laxton's Omega.—A half-dwarf kind, dark green in all its parts, very late, and named so as to indicate that it closes the list of Peas. The pods are thin, long, slightly curved, blunt, well filled with green peas very closely set together and not very much wrinkled when ripe, but rather square and hollowed on the sides, and in colour light green.

Little Gem.—A very dwarf kind, 12 to 16 in. high, vigorous, and usually very branching. The pods are rather small, but broad, straight, and well filled. The peas, when ripe, are pale coloured, bluish, and wrinkled.

May Queen.—A tall early variety; leaves light green; pods broad and blunt at the end; seed green, wrinkled.
Minimum.—An exceedingly dwarf variety, with white wrinkled peas.

Multum in Parvo.—A very dwarf kind, about 1 ft. high, of compact and thick-set growth. Leaves broad and rather numerous, of a deep blue-green; pods usually solitary, short and rather broad, and narrowed towards the end; peas pale green or greenish white when ripe. A rather early variety.

Ne Plus Ultra (Payne’s Conqueror, Cullingford’s Champion).—A very tall-growing late Pea, sometimes over 6½ ft. high. Pods numerous, commencing at about one-third the height of the plant, usually in pairs, long, broad, perceptibly curved, and very narrow towards the stalk; peas very large, somewhat oval, and green and wrinkled when ripe. First-class quality.

Nelson’s Vanguard.—A half-dwarf Wrinkled Pea. Leaves rather large; pods borne in pairs, of medium length, but rather broad. This variety comes into use about the same time as the Early White Dwarf Wrinkled Pea, but is of a more compact and thick-set habit of growth.

Norwich Wonder.—A sub-variety of Telephone, with shorter pods.

Nott’s Excelsior (Am).—A small dwarf variety, a little taller than American Wonder, which it resembles.

Nutting’s No. 1.—A branching, rather vigorous-growing, but really dwarf variety. Stem stiff, about 20 in. high; pods numerous, in pairs, of moderate length, but well filled, nearly straight, and blunted at the end; peas white, wrinkled. A very early kind, and one of the best Dwarf White Wrinkled Peas.

Pioneer.—A small climbing variety, with fine slender stems, like those of Sangster’s No. 1. Pods of medium size, usually solitary, straight, palish coloured, each containing five or six peas, which become white and wrinkled when ripe.

Princess of Wales.—A half-dwarf variety, seldom exceeding 2½ ft. in height. Leaves pale, rather numerous; pods short, broad, blunt, whitish, very close together at the top of the stem owing to the shortness of the joints; peas wrinkled, pale green, and sometimes almost white.

Sharpe’s Early Paragon.—A climbing kind, half-early, remarkable for the large size and light green of its leaves; pods broad, pale green, blunt, thick; peas green, wrinkled, and fairly large.

Standard.—A half-dwarf kind, about 2 ft. 8 in. high. Stem stout, and very leafy; leaves pale green, pods long, pointed, very much curved, rather swollen, each containing about ten large round peas, which become wrinkled when ripe, some of them remaining green, while others turn perfectly white.

Tall Green Mammoth, or King of the Marrows.—A very tall and very late variety, exceeding 6 ft. in height. Stems very
branching; pods large, broadening towards the end; pea medium-sized, wrinkled, and green.

**Telegraph.**—This variety comes near Telephone, but is distinct. It grows 4 ft. high, and bears very numerous long, broad pods, containing large peas, which, when cooked, are a deep green colour and of excellent flavour.

**The Sherwood.**—A dwarf kind, with broad leaves; pods straight, dark green, well filled; seed green and wrinkled.

**Wem.**—A late sort, 3 ft. in height, producing an abundance of thick pods, solitary or in pairs; seed wrinkled, oblong, and light green.

**Yorkshire Hero.**—Half-dwarf, bearing on the top of the stems broad short pods; seed large, green, flattened, wrinkled, and of good quality.

**German Varieties**

**Buchsbaum-Erbse.**—A very dwarf Shelling Pea, rather like the Brittany Dwarf Pea, but coming in a little earlier and having somewhat larger pods. The name is also applied to a very dwarf and thick-set Edible-podded Pea.

**Grosse Graue Florentiner Zucker-Erbse.**—This variety is almost exactly the same as the old Giant Sugar Pea. It is a very tall, somewhat late kind, and usually produces flowers in pairs. The pods are nearly the same size as those of the Large Crooked Sugar Pea, and are generally straighter than those of the Giant Sugar Pea, which is now commonly grown, and which has been already described.

**Pois Jaune d'Or de Blocksberg.**—A Shelling Pea, rather like the White Scimitar Pea, but of a more slender habit of growth, not quite so tall, and somewhat earlier. It is particularly distinguished by the wax-yellow tint of its pods and fresh peas, but as a fine green colour is generally looked for in Peas, this is a defect.

**Kapuziner-Erbse.**—In Germany, and especially in Holland, this name is given to all kitchen-garden peas which have red flowers, and is chiefly applied to the Edible-podded Peas, as these are almost the only kinds with coloured flowers which are grown. There are both climbing and dwarf varieties of these peas.

**Ruhm von Cassel Erbse.**—A variety very closely allied to the White Scimitar Pea, and might almost be considered identical with it, only that its pods are straighter or less curved than those of that kind.

**Frühe Heinrich's Zucker-Erbse.**—A climbing Sugar Pea, of moderate height, rather like the Ruelle Michaux Pea. Flowers often solitary. A good and rather early variety, but not so productive as the good half-dwarf kinds, such as the Brittany Sugar Pea.
Holländische Grünbleibende Späte Zucker-Erbse.—A very tall late kind, with white flowers in pairs. Pods of medium size, much smaller than those of the Large Crooked Sugar Pea. This variety does not commence to bear until late in the season, but it continues bearing for a long time. It requires very tall stakes.

Sehr Frühe Buchsbaum de Grâce.—This Pea may, at the most, be considered only a sub-variety of the ordinary Dwarf Dutch or Dwarf Crooked Sugar Pea, being merely a little more slender in habit, and growing a trifle taller. It is not a very productive kind, but very early and exceedingly dwarf.

Zwerg-Buchsbaum de Grâce.—A very dwarf variety, with small, gray, slender, scanty leaves. The pods are not always free from membrane.

WINGED PEA

*Lotus Tetragonalobus, L.; Tetragonalobus purpureus, Möench.*

*Leguminosa.*


Native of South Europe.—Annual.—An almost creeping plant, with stems spreading on the ground, about 1 ft. long and pale grayish green, of the same tint as the leaves, which are composed of three broad, short leaflets. Flowers a fine, slightly brown red; pods square, with membranous wings at the angles, from about 2 1/4 to over 3 in. long, and tolerably fleshy when young; seeds yellow, almost spherical, or slightly flattened. Their germinating power lasts for five years. This plant is grown in the same manner as Lentils or French Beans. The seed is sown in April where the crop is to stand, and the plants require no attention except watering in very dry weather. The pods, when young and tender, are eaten like Haricot Beans. The seed, when roasted, forms one of the many substitutes for coffee.

PEA-NUT, EARTH-NUT, or GROUND-NUT

*Arachis hypogaea, L.*

*Leguminosa.*


Native of South America.—Annual.—A plant with weak, almost creeping, stems. Leaves consisting of two pairs of oval leaflets.
with a broad emarginate stipule at the base of the leaf-stalk; flowers yellow, solitary, in the axils of the leaves; pods oblong, often contracted in the middle, like a Bottle-Gourd, of irregular shape, reticulated, yellowish, each containing two or three nuts as large as good-sized peas, of an oblong shape, and covered with a brown or red skin. The germinating power of the peas lasts for only one year. A peculiarity of this plant is that the flowers insert their ovaries into the ground, where they complete their growth, and where the seeds or nuts ripen, at a depth of from 2 to 4 in. In America several varieties are grown, differing from one another in the size of the nuts and the number contained in each pod.

CULTURE.—The seeds or nuts are sown in spring, as soon as the frosts are over, and the plant succeeds best in light soils. Being a tropical plant, it may sometimes live and ripen its fruit in the west of Europe, but cannot be profitably cultivated here.

USES.—In warm countries the nuts are often eaten raw or parched. An oil, of the greatest value for economic purposes, is also extracted from them.

POTATOES

*Solanum tuberosum, L.* Solanaceae.


Native of the high mountain regions of South America.—Annual, but virtually perennial through its tubers.—The history of the discovery and the introduction of the Potato into Europe is rather obscure. It appears certain, however, that towards the close of the sixteenth century the plant began to be generally cultivated and used as a table vegetable. It was first grown in the Netherlands, Lorraine, Switzerland, and Dauphiné, and its cultivation extended even to Spain and Italy before it became common in the central and northern districts of France. In fact, it was not until after Parmentier had laboured and written on the subject, that the Potato was appreciated at its true value in the neighbourhood of Paris and the adjoining localities. Almost about the same time, its culture began to acquire some degree
of importance in England, and from that time forward it has extended most rapidly, and, in spite of the disease, which about the middle of the last century threatened complete ruin to its cultivation, the Potato still holds the first place amongst edible tubers.

Varieties of the Potato might be counted to the number of many thousands, if any one wished to record all that have been raised and recommended in different countries during the last hundred years. This extreme multiplicity of varieties has obliged us to pass over a very large number of them, and we shall confine ourselves to the description of fifty varieties or so which appear to us to be the most distinct and, at the same time, the most worthy of note.

The stem of the Potato is generally solid, more or less quadrangular, and often furnished with membranous wings at the angles. The leaves are compound, formed of oval leaflets, between which are often found small leafy growths, like leaflets of smaller size. The flowers are produced in axillary and terminal clusters, and have an entire, wheel-shaped, five-pointed corolla, varying in colour from pure white to purplish. Many varieties do not flower, and of those which do flower, a very great number never bear fruit. The fruit is rounded or very shortly oval, green in colour or (rarely) tinged with violet-brown, and averages about 1 in. in diameter. It contains, in the midst of a green and very acrid pulp, small, white, kidney-shaped seeds. These are never sown except for the purpose of raising new varieties.

The tubers, which are only underground branches swollen and filled with starchy matter, exhibit very great differences in shape and colour, according to the varieties. They are usually divided into the four classes of Round, Oblong, Long Notched, and Long Smooth Potatoes. To these characteristics, and those which are derived from the colour, may be added those which are furnished by the buds or shoots which are produced by the tubers when kept in a dark place. These are very constant in appearance and colour, and afford the means of distinguishing one variety from another with a considerable degree of accuracy. We believe few characteristics are so important as these for determining varieties, and in a work* recently published we thus spoke of them: "Whether the tubers have attained their full growth, or, on the contrary, have remained exceedingly small and puny; whether they have been fully ripened or not; whether, even, they are sound or diseased, provided they have enough vitality left to enable them to commence to vegetate, the buds or shoots always develop themselves with the

same appearance and the same colour in the same variety"—on condition, of course, that the tuber has not been exposed, either before or during the growth of the shoot, for any length of time to the influence of light.

CULTURE.—When grown in the open ground, Potatoes are usually planted in April, in holes or pockets at a distance from one another of from 16 in. to 2 ft., according to the vigour of growth of the variety. Entire tubers of medium size are the best for planting. They should be covered, at the time of planting, with soil to the depth of 4 or 5 in., and the practice is to earth up as soon as the stems have grown to a height of 6 to 8 in., the ground being then also hoed for the second time. The earthing-up is not absolutely necessary, but it has the advantage of causing the tubers to lie closer round the roots of the plant, so that they are more easily taken up. Potatoes ripen, or, at least, become good enough for use, from the beginning of June to the end of October, according to the varieties. When the tubers for planting have been exposed to the influence of light and air, they generally vegetate earlier and more vigorously; but, in this case, much care must be taken, when planting, not to break off the shoots which have commenced their growth.

There is some advantage in planting Potatoes in autumn, as the yield is generally somewhat heavier than it would be on the same area and with the same quantity of "seed" Potatoes if planted in spring. On the other hand, there is the danger of the "seed" perishing in the ground in very cold or too damp winters, and, besides, the planting should be done in October or November— a time when there is almost always much to do in the gardens or in the fields.

Potatoes may be forced under frames on a hot-bed of greater or less strength. Forcing may be commenced in December or January, and monthly plantings in the hot-beds may be continued up to the middle of March. The Marjolin Potato, which has very scanty leaves, is chiefly employed for this purpose. New forced Potatoes may be taken up in two and a half or three months after planting.

The culture of the Potato in the United Kingdom is so very extensive, and differs so much according to the district and the aim of the growers, that we have not space to do justice to it here. We therefore refer the reader to a small and handy book in which the culture in all its phases is carefully described, viz. Fremlin's "Potato in Farm and Garden," and the London market-garden culture is fully treated of in Shaw's "London Market-Gardens."

USES.—The tubers, either young or ripe, are eaten as a table vegetable. They are also used for feeding cattle and for the manufacture of starch and alcohol. *

* See also pp. 769, 770. † Spraying, see p. 771. Sprouting the Seed Tubers, see pp. 771, 772. Diseases of Potato, see pp. 778, 780.
ROUND YELLOW POTATOES

I. Round Yellow Varieties

Shaw, or Regent, Potato.—Tuber round, yellow, with a smooth or wrinkled skin, according to the kind of soil in which it is grown; eyes rather deeply sunk; flesh yellow and very floury; shoot a wax-yellow colour, violet-coloured at the base and at the extremity. Stems rather long, sometimes 3 ft. or more, pliable, almost always drooping, quite green, or very slightly tinged with brown, faintly winged, and almost always branching. Leaves short, numerous, dark and rather dull green; leaflets crowded closely together, reticulated, and always curled and wavy. Flowers very rarely opening, as they almost always fall off when merely small buds; when they do bloom, they are a pale bluish lilac colour. This variety is more extensively grown than any other kind of Round Yellow Potato in the vicinity of Paris. It is very productive, floury, and of excellent quality. If planted in April, the crop ripens in August.

The Segonzac Potato differs from this variety only by a few characteristics without any importance.

Early Round Yellow Potato.—This may be considered as a somewhat earlier form of the Shaw, or Regent, Potato, with usually rounder tubers, which also have fewer eyes. In growth it hardly differs from that variety. The stems, however, seldom exceed 2 ft. or 2 ft. 4 in. in length; the leaves are not so numerous, and
are a lighter green, those at the top of the stem being paler and yellower than those at the base. The flowers fall off while in the bud state. This is a very fine and excellent variety. If planted in April, new potatoes, fit for use, may be taken up about the end of July.

**Golden-yellow Norwegian Potato.** — Tubers medium-sized, rounded, sometimes slightly elongated, usually very regular; skin of a handsome yellow colour; flesh yellow, shoot violet. Stems slender; leaves small, light green; flowers flax gray. This is one of the best Potatoes for table use, specially in a rather dry climate. In wet seasons it easily becomes diseased.

**Cigarette Potato.** — Tubers large, yellow, rounded or slightly long, flattened, very smooth; flesh white; shoot pink. The stems numerous, strong, somewhat angular, light green; leaves rather scanty, with small oval-pointed leaflets, slightly hairy. The flowers fall off. This variety has against it, from a French point of view, the whiteness of its flesh, but it has excellent qualities. It is a heavy cropper, producing perfectly regular tubers very easy to peel. Ripens mid-season.

**Up-to-Date Potato.** — Tubers round, sometimes slightly elongated and flattened, almost without eyes; skin yellow; flesh pale
yellow, of sufficiently good quality to be used for the table; shoot pink. Stems high and vigorous; flowers lilac. An excellent variety, which ripens at about the same time as the Yorkshire Hybrid, and if inferior to it in quality, produces considerably heavier crops.

**Canada Potato.**—A large yellow tuber with the eyes hardly marked. It is rounded and slightly elongated; the shoot rose colour; stems vigorous, tall, and foliage abundant, and of a gray-green colour; the flowers white, in bunches, but producing seed very seldom. The Canada Potato is best for feeding cattle and for industrial purposes. Imported from Canada some years ago by a French missionary, it has been made known principally by M. Paul Genest, the President of the Agricultural Comice of Lunéville.

**Imperator Potato.**—The tuber is rounded or slightly oblong, large or very large, pale yellow, with the eyes pretty deeply sunk. The flesh is white; the shoot violet. The stems are vigorous, tall, erect, quadrangular, bronzy; and bear large leaves with large rounded leaflets, sparsely set, which gives the foliage a rather light appearance. The flowers are large, lilac, and do not seed usually. It is a late variety, the tubers of which are remarkably rich in starch.
Besides its industrial value, it is also one of the most productive Potatoes known, having produced as much as twenty-six to thirty tons per acre.

**Agnelli’s Jewel Potato.**—The tubers resemble much those of Imperator, but are longer and pale yellow. The flesh is white; the shoot violet; the stems tall and very strong; the leaves like those of Imperator; the flowers ash-gray. A late variety, intro-

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![Imperator Potato](image)

duced from Austria, suitable only for feeding cattle or for the manufacture of starch. Yields regularly over twenty tons or so to the acre, and contains 18 per cent. of starch, or even more.

**Professor Maerker Potato.**—The tubers are large, yellow, rounded, with the eyes slightly marked; the flesh is white; the shoot violet; the flowers violet. It is a half-late variety which may be used for the table, but it is rather a field Potato, rich in starch, and not liable to disease.
**Edouard Lefort Potato.**—Tubers large, rounded, with well-marked eyes; yellow, somewhat wrinkled skin; flesh yellow, firm, floury, and agreeable to the taste; shoot waxy white, tinged purple at the base and at the point; stems little developed. This variety was introduced by M. Edouard Lefort as the result of a cross between Imperator and Marjolin. It is an early Potato, suitable, however, for field culture. Planted at about 20 in. distant in rows about 24 in. apart, it can produce some 13 tons to the acre, available for market by the end of July.

**Giant Unequalled Potato.**—The tubers are very large, yellow, rounded, sometimes knobby, with deep-sunk eyes; the flesh yellow, and the shoot pink. The stems are numerous, strong, erect, light green, rounded or slightly winged; the leaves pale green, erect,
with leaflets crowded close, small, reticulated, and hairy. The flowers are white, and fall off without seeding. A late variety, still more productive than Imperator and richer in starch; fit for table purposes, but more especially adapted for industrial uses.
Séguin Potato.—Tuber rounded, medium-sized, and a grayish yellow colour; skin usually wrinkled; eyes not very deeply sunk; flesh yellow. Diameter generally ranging between 2 and 2½ in. Stems erect, vigorous growing, 2 ft. to 2½ ft. high, quadrangular, deeply winged, marked with brown above the joints, and generally
branching. Leaves rather distant from one another, large, composed of oval, stalked, large, flat leaflets, and of other leaflets which are small, sessile, and round. Flowers numerous, large, bluish lilac, in stout clusters, and produced in succession for a long time. This variety is very productive and floury, and keeps well. It does not ripen until September.

Scotch Champion Potato.—Tubers very numerous, rounded, sometimes flattened; skin pale yellow, as is also the flesh; eyes deeply sunk, but not very numerous; shoot violet-coloured.

Jeancé Potato.

Diameter seldom exceeding from $2\frac{1}{2}$ in. to $2\frac{3}{4}$ in. The tubers are often longer than broad. Stems very vigorous growing, very erect, 3 ft. or more high, quadrangular, winged, dotted with blackish brown, and slender. Leaves numerous, growing almost erect, of medium size, and having the veins spotted with violet colour; leaflets elongated, very long pointed, very much reticulated, and covered with small stiff hairs. Flowers deep violet, with white points, in rather numerous clusters, and produced in succession for a long time. Seed very rarely formed. This is an exceedingly vigorous-growing and productive variety. Some years ago a great
deal of noise was made about it in England, on account of its resisting the disease. It is not, however, perfectly exempt from it, but, like the Chardon Potato, it continues to grow when attacked by the fungus, and ripens its tubers late in autumn, when the disease has spent much of its force.

**Jeancé Potato.**—Tubers rounded, somewhat irregular, the eyes being very deeply sunk; skin of a slightly gray-yellow colour, and smooth or wrinkled, according to the kind of soil in which the plants are grown; flesh yellow; shoot pink. Diameter often 3½ in. and sometimes more. Stems vigorous growing, from 2½ in. to 3½ ft. long, quadrangular, rather deeply winged, often drooping, and very much branched. Leaves medium-sized, with short oval-rounded or heart-shaped leaflets, which are almost flat in the lower leaves and curled and folded in those at the end of the stem. Flowers rather numerous, lilac-pink; fruit seldom. Leaves a pale gray-green. This Potato, which is best known in the vicinity of Paris by the name of Pomme de Terre Vosgienne, is one of the most productive and best kinds. It is very floury and keeps well. If planted in April, the crop ripens in September.

**II. Oblong and Long Yellow Varieties**

**Snowflake Potato.**—Tuber oval, always flattened, and remarkable for its symmetrical shape; skin pale yellow or grayish white, sometimes smooth, but usually wrinkled; flesh white, very floury, and light in texture; eyes very faintly marked; shoot pale pink. Stem rather erect, seldom exceeding 2 ft. in height, more round than quadrangular, swollen at the joints, and quite green. Leaves rather numerous and large, and of a very pale, light yellow-green; those at the base of the stem are much larger and flatter than those at the top. Flowers white, large, very often abortive. This is one of the best American varieties. It is a productive and rather early kind, and the flesh is of excellent quality. If planted in April, the tubers ripen about the middle of July.

**Ohio Junior Potato.**—Very large, oblong, flattened tubers very regular in shape, yellow, with eyes very little sunk; the flesh white; the shoot violet-coloured; the stems vigorous, very thick but short, and often branching, slightly winged, purple. Leaves large, of a shining dark green; leaflets oval, rounded, reticulated, almost glabrous; the flowers lilac with white points, not productive of seeds. It is above all a field variety, almost as productive as the Imperator and the Giant Blue Potato, but rather early. One of its chief merits is seldom to produce those small tubers which, being started late in the season, have not the time to attain a fair size and therefore go to waste.
Sutton's Seedling Kidney Potato.—Tubers large, oblong, flattened, smooth and yellow; the flesh pale yellow; the shoot violet. Stems medium-sized, spreading, angular, slightly purple; leaves of fair size, glossy dark green, with large leaflets, oval, mucronated, somewhat reticulated, slightly reflexed, the flowers always falling off. A very productive variety of excellent quality, ripening mid-season.

Chancellor Potato.—Tubers large, oblong, flattened, smooth, pale yellow; the flesh yellowish, shoot violet. Stems long, slender, spreading, slightly winged, violet. The first leaves are large, shining green, reticulated, oval with short petioles; those produced later are smaller, more pointed and dull green. The flowers are abundant, purple with white points, falling off. A very fine variety, much grown for its great productiveness and perfect shape and excellent keeping quality of its tubers. Ripens half late.

Queen of the Polders Potato.—Tubers regular, long, flat, smooth, and slightly curved; eyes not prominent. The flesh is light, floury, and white; the shoot is pink and the stems short and slender; leaves of dull dark green, crimped; leaflets oblong, reticulated; flowers white. Neither early nor late, it does
very well in the sandy soil of the reclaimed marshes near Mont Saint-Michel, from whence large quantities of it are exported into England, where it is much liked.

**White Horn Potato.** — Tubers very numerous, light yellow, and thin, considering their length; their diameter scarcely exceeding the thickness of the thumb, while their length is often $3\frac{1}{2}$ to $4\frac{1}{2}$ in. The flesh and flavour are delicate. A vigorous half-late variety.

**Magnum Bonum Potato.** — Tuber large, oblong, slightly flattened, sometimes irregular in shape; skin pale yellow, smooth or wrinkled, according to the kind of soil in which the plants are grown; flesh yellow; eyes pretty well marked, and prominent rather than sunk; shoot pink. Stems very erect, vigorous growing, quadrangular, winged, tinged with coppery red above the joints, and growing from about $2\frac{1}{2}$ to $3\frac{1}{2}$ ft. high. Leaves rather far apart, composed, especially those towards the base of the stem, of very broad, oval-rounded, not very numerous, almost flat, and broadly reticulated leaflets. The prevailing tint of the foliage is a pale or grayish green. Flowers lilac-red, most abortive. An extremely productive mid-season
variety, coming in about the middle of September. In England it has the reputation of resisting the disease very well, but in France it is not remarkable in this respect. Although at first green when other varieties are attacked, when it arrives at the period when the tubers commence to form, it takes the disease in its turn, and soon succumbs to it.

**Lapstone Potato** (English synonyms: Ash-top Fluke, Perfection Kidney, Pebble White, Rixton's Pippin, Yorkshire Hero) —

Tubers regularly almond-shaped, sometimes short, sometimes long, and very smooth; eyes hardly marked; skin pale yellow, slightly
gray, violet-coloured if exposed to the light for any long period; flesh pale yellow, very fine flavoured; shoot hairy, violet-coloured. Stems half-erect, from 20 in. to 2 ft. high, thick at the base, but quickly becoming thinner, quadrangular, slightly winged, and of a very faint copper colour near the joints. Leaves broad, light green, almost flat, slightly glazed, and having a peculiar appearance which is easily recognised. Flowers numerous, large, pure white, seldom producing seed. A very handsome variety, with flesh of fine flavour, light texture, and excellent quality. If planted in April, new potatoes may be dug about the end of July.

Early Victor Potato.

**Victor Potato.**—Tubers flat, oblong, often squared at both ends, smooth; the eyes faintly marked. Flesh quite yellow; shoot purple. Stems short, vigorous, with large round leaves. The flowers very scarce, large, and light purple. Of even quicker growth than the Marjolin Potato. The short stems make it suitable for cultivation under glass, in which case the tubers are formed within forty days. In the open ground it is early, and two successive crops may be grown in the same season.

**Bed's Hero Potato.**—Tubers yellow, large, oblong, smooth, almost eyeless, flesh yellow; shoot white or tinged with pink. Stems thin, very erect; leaves abundant, light green; leaflets small, oval-pointed, erect, and but slightly reticulated; flowers
white, abundant, and falling off. A vigorous but rather dwarf plant, of like earliness to the Yorkshire Hybrid, having the same qualities, with rather larger tubers.

**Marjolin Potato** (English synonyms: Walnut-leaved Kidney, Sandringham Early Kidney).—Tubers long, often slightly curved, thicker and rounder at one end, narrowed to a blunt point at the other, often marked with swellings about the eyes; skin yellow, smooth; flesh very yellow; shoot, when grown in darkness, yellowish white, and violet and green when grown in the light. The tubers grow close together around the bottom of the stem.

![Walnut-leaved Kidney Potato (sprouting tubers, natural size).](image)

Stems short, seldom exceeding 16 to 20 in. in length, usually drooping, not branched, and slightly winged. Leaves medium-sized, with rounded leaflets, dark green on the upper surface, much glazed, and almost always spoon-shaped. Flowers white, rather large, usually abortive, when the variety is very pure. This is the best known and most extensively grown early Potato, and forms tubers more quickly than any other kind. If planted in the open ground in April, the tubers ripen in June. It is the most suitable kind for growing in frames for
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an early crop, and is the variety which is most used for that purpose. There is a form of it which has taller stems, leaves slightly reticulated, and numerous white flowers, and which resembles the Royal Ash-leaf Kidney. This, although not so early, is far more productive than the ordinary variety. It is grown in the open air. About Paris, the practice of sprouting "seed" potatoes before planting them is very common. For this purpose, the tubers are ranged on wicker-work screens (care being taken to place them with an eye uppermost), and kept in a dry place sheltered from frost until they are planted. When planting-time arrives, the screens are carried to the ground, and the tubers are taken from them one by one and carefully deposited each in the hole made to receive it. When the tubers are prepared in this way, the crop comes in from ten to fifteen days earlier than it would if they had been planted without being sprouted. Besides, the practice of sprouting is an almost certain preventive of a mishap which occurs more frequently with this variety than with any other—that is, the complete abortion of the overground stems. When this happens, no stems make their appearance above the surface of the ground, the tuber producing only a few under-ground stems bearing diminutive tubers which all together weigh less than the "seed" potato from which they have grown.
Tétard Marjolin Potato.—Tubers large, flattened, oblong or almond-shaped; skin smooth or faintly wrinkled, of a dark, coppery yellow, assuming a peculiar and easily recognised tint after the tubers have been taken up out of the ground; flesh yellow, very fine and delicate in flavour; shoot yellowish white. The tubers are sometimes swollen around the eyes, like those of the last-named variety. Stems erect, quadrangular, slightly winged, very rarely branching, quite green, and from 20 in. to 2½ ft. high. Leaves rather curled and wavy, of a green, slightly yellow, colour, and glistening. Flowers white, rather numerous, but hardly ever seeding. A very productive and early variety, and exceptionally good for cooking. If planted in April, new potatoes may be dug in the latter part of July.

Royal Ash-leaved Kidney Potato (Synonyms: Early Alma Kidney, Carter's Early Racehorse, Harry Kidney, Royal Ash-top, Myatt's Ash-leaved Kidney, Veitch's Ash-leaved Kidney, or Rivers' Ash-leaved Kidney).—Tuber long, very smooth, kidney-shaped, or like a Gherkin, almost resembling the Early Marjolin Potato; skin yellow; eyes faintly marked; flesh yellow; shoot violet. Stems usually drooping, from 20 in. to 2 ft. long, rather slender, quadrangular, deeply tinged with a violet-brown colour, especially near the angles. Leaves dark green; lower ones broad, almost flat, moderately reticulated; upper ones much more twisted and puckered, and with the leaflets more pointed. Flowers large, lilac-blue, very seldom blooming. An excellent kind for an early crop, more suitable for the open ground than for growing in frames.
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It is almost as early as the Marjolin Potato, but its tubers do not grow so close together around the base of the stem, and the foliage is more abundant. The flesh is very fine and of excellent quality.

Belle of Fontenay Potato.—Tubers yellow, oblong or kidney-shaped, abundant, medium-sized, smooth. The flesh is very yellow, the shoot violet. In growth this variety resembles the Royal Ash-leaved Potato, but the stems are shorter, and the leaves, which are dark green, much twisted. The flowers are lilac-coloured and seldom bear seed. A very early, productive variety, of good quality and keeping well; suitable also for growing under glass.

Belle of July Potato.—Tubers thick, almond-shaped, sometimes curved like a kidney. The skin is yellow, smooth; the flesh yellow;
the shoot purple. The stems are rather thin, firm, erect; foliage light. It is not liable to disease. The flowers are not abundant, and of a gray-lilac, and do not usually produce seed. An excellent Potato for

the French market, on account of its shape, earliness, and especially the colour of its flesh. Comes into use at the same time as the Yorkshire Hybrid Potato, to which it is superior. The tubers are numerous and almost uniform in size, so there is no waste in lifting.

Nettle-leaved Potato (English synonyms: Early Bedfont Kidney, or Sutton's Early Racehorse, Potato).—Tubers very like those of the Early Marjolin Potato, but distinguished from them,
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as soon as they commence to sprout, by the pink colour of the shoots, which are also hairy and covered with leaves; flesh yellow. Stems slender, generally unbranched and spreading along the ground, from 20 in. to 2 ft. long, and slightly winged. Leaves rather far apart, short, composed of a few oval-rounded, very much reticulated dark green leaflets. Flowers white, opening early, in not very numerous clusters, and sometimes producing seed. A very good variety for an early crop, coming in almost as soon as the Early Marjolin and quite as productive, but it keeps badly. It is very extensively grown for an early crop in the open fields in the vicinity of Paris.

Prince of Wales Potato.—Tubers generally smooth, but sometimes knobby; almond or pear-shaped; flesh yellow, fine grained, floury and light. Stems pretty vigorous, brown, mostly lying on the soil. The foliage is reticulated, resembling that of the Royal Ash-leaved Potato. The flowers are lilac-blue, and very seldom seed. It is an excellent, very productive Potato, and of easy sale. It is especially apt for producing fresh tubers in August and September, but, like the Royal Ash-leaved, does not keep very well.

Yorkshire Hybrid Potato (Quarantaine de la Halle or Hollande).—Tubers medium-sized, seldom more than from 3½ to 4 in. long by 2 in. in diameter, oblong or almond-shaped; skin yellow, usually smooth; eyes hardly visible; flesh very yellow and of excellent quality; shoot pink, slightly hairy, and slow in growth. Stems half-erect, quadrangular, winged, sometimes branching, and from 2 to over 2½ ft. long. Leaves large and broad, composed of a great number of leaflets of very variable dimensions: in the lower leaves they are broad, flat, and almost glazed; in the upper ones
they are narrower, reticulated, and curled. Flowers numerous, violet-pink, a pretty large proportion of them producing seed. This variety, in fact, is one of those which yield the most seed. In the Paris market it ranks amongst the most highly esteemed kinds, and has completely superseded the old Long Yellow Dutch Potato.

It is productive, of excellent quality, keeps very well, but, unfortunately, is very liable to be attacked by the disease. If planted in April, new potatoes may be dug in the course of August.

The Brie Long Yellow Potato is a sub-variety of this kind, from which it does not differ essentially. Its tubers are generally a little longer and yellower, and ripen somewhat later, but that is chiefly owing to the circumstance that they are grown in richer, deeper, and colder soils than those in which the Yorkshire Hybrid is usually planted. The characteristic features of both forms—that is, the colour and arrangement of the flowers, and especially the appearance and growing period of the shoots—are, in fact, identical.

Princesse Potato.—Tuber very long, almost as deep as broad, usually curved, and thicker at the top than at the bottom; skin
bright yellow, smooth; eyes prominent rather than sunk; flesh very yellow; shoot smooth, copper-coloured. Stems half-erect, 20 in. to 2 ft. long, quite green, thick, quadrangular, and winged. Leaves long and abundant, composed of numerous leaflets, large and small, of a pale green, slightly yellow, colour. Flowers very large, lilac-red, not numerous, and seldom seeding. This variety is particularly suitable for frying and for salads; the flesh is very firm and compact. The tubers ripen middling early. If planted in April, new potatoes may be dug about the end of August.

Joseph Rigault Potato.—Tubers smooth, almond-shaped, skin and flesh quite yellow; the eyes very faintly marked; the shoot copper-coloured. The stems are thin and weak, generally lying on the ground; the foliage is light, pale green, and glazed. The flowers are few and purple-red. A half-early variety, well shaped and clean, with a fairly tough skin and of pleasant flavour. It has all the qualities valued in a table Potato, and is altogether a garden Potato, not being productive enough for market-gardening or agricultural purposes.

III. Round Red Varieties

Red-skinned Flour-ball Potato (Synonyms: Garnet Chili, or Brinkworth Challenger).—Tubers large, deeply marked with hollows from the eyes being very much sunk, often 4 in. or more
in diameter; skin usually wrinkled, pale red; flesh white; shoot white, with the point and base red. Stems erect, quadrangular, winged, of a coppery red, from about 2½ to over 3 ft. high, sometimes branched. Leaves medium-sized, composed almost solely of large oval-acuminate leaflets, which are nearly always folded gutter shape, and of a rather light, yellow-green colour. The main leaf-stalk is rather deeply tinged with brown, especially towards the extremity. Flowers very abundant, of a slightly lilac-rose colour, in numerous clusters, and produced in succession for a long time; they very seldom bear seed. This is one of the good

American Wonder Potato (natural size).

varieties for field culture, and, although its introduction only dates back about twenty years, it has already taken an important place among the varieties which are grown both for the manufacture of starch and for table use. It uniformly yields pretty well, as it suffers little from the disease, and is not too late in ripening, the crop being usually dug in September in the vicinity of Paris. For table use, the flesh is considered to have the defect of being too white and somewhat deficient in fineness of flavour.

American Wonder Potato. — Tubers rounded, somewhat irregular; eyes deeply sunk; skin rather smooth, violet-red; flesh white; shoot red. Stems erect, quadrangular, vigorous growing.
Leaves broad, with dark green leaflets. Flowers numerous, in large strong clusters, of a rather vivid violet-red colour. A half-late and very productive variety, but of only ordinary quality.

**Village Blacksmith Potato** (*Pomme de Terre Truffe*).—Tubers roundish, medium-sized, regular, eyes not much sunk; remarkable for the peculiar appearance of the skin, which is thick, blackish, and split like the skin of a truffle. Shoot violet-coloured; flesh white, light, very floury when cooked; stems medium-sized, erect; foliage gray, reticulated; flowers lilac, opening seldom. The Blacksmith Potato is half-early, fairly productive, and of very good quality. It is sure to be appreciated in countries where preference is given to white-fleshed Potatoes.

**IV. Red or Pink Oblong or Long Varieties**

**Institut de Beauvais Potato.**—Tubers large, flattened, heart-shaped; the skin yellow rather salmon-coloured, or tinged rose near the eyes, which are marked by a superficial rumple. The flesh is
very pale, almost white; the shoot pink. The stems very vigorous, quadrangular, thick, erect, with large, smooth, light green leaves. The flowers are white, numerous, and produced in bunches. It is half-early and fairly productive. It was raised from seed at the Institute of Beauvais, Oise, and resembles so very closely the Idaho Potato that one might suppose it had been raised from seed of the Idaho.

**White Elephant Potato.**—Tubers very large and usually very long, flattened, and slightly notched; in colour pale yellow, more or less striped with pink, especially at the end. The flesh is white and the stems very vigorous, tall, with broad vivid green leaves. The flowers are white. A handsome late potato with remarkably large tubers, specially good for feeding cattle, etc.

![Early Rose Potato.](image)

**Early Rose Potato.**—Tubers oblong, rather flattened, often more pointed at the top than at the bottom; eyes not very deeply sunk, but having a rather prominent ridge or wrinkle below them; skin smooth, and of a pink colour slightly tinged with salmon colour; flesh white; shoot pink, and germinating remarkably soon. Stems medium-sized, erect, from 2 to 2\(\frac{1}{2}\) ft. high, rather thick at the base, but speedily becoming more slender, sometimes branching, and slightly tinged with coppery red, especially near the joints. Leaves flat and smooth, composed almost solely of large oval-acuminate leaflets, of uniform size, slightly glistening, and of a light green colour. Flowers white, large, in not very numerous clusters, and usually falling off abortive. A very productive and early kind, the crop ripening in the month of August. Flesh light in texture, and extremely variable in quality, according to the kind of soil in which the tubers are planted. These do not keep well, as they have too great a tendency to sprout.
Variegated-leaved Potato.—We have placed this variety next to the Early Rose because the two resemble each other closely, only differing in the golden-yellow striped foliage of this variety. The tubers are the same shape and colour as those of the Early Rose Potato, but less numerous and often smaller.

Cottager's Red Potato (Saucisse).—Tubers flattened, oblong, usually very regular in shape, from about $3\frac{1}{2}$ to 4 in. long, and about 2 in. in diameter; skin smooth, rather vivid red; eyes faintly marked, not sunk; flesh yellow; shoot pink. Stems tall, erect, very vigorous, almost always branching, often 3 ft. or more in height, quadrangular, slightly winged, and deeply tinged with brown red. Leaves large, composed of very unequal, oval-round, much reticulated leaflets of a dark, slightly gray and dull, green. Flowers pale violet, in very numerous clusters usually intermingled with the leaves, very rarely producing seed. One of the best kinds for winter use, and most in request in Paris late in autumn. The flesh is somewhat compact, but much more floury as the season advances. This variety is rather free from the Potato-disease properly so called, but it often suffers from the affection know in France as "la Frisolée," which shrivels up both leaves and stems at the commencement of their growth.

Robertson's Giant Kidney Potato (Rouge longue de Hollande).—Tubers very easily recognised, flattened kidney or almond shaped, usually very long, with the base very narrow, and often curved into a crook; skin smooth, of a rather dark red slightly tinged with
violet; flesh yellow, fine in texture, and of good quality; shoot red.
Stems erect, stiff, more round than quadrangular, coppery red, and
from 2 to $2\frac{1}{2}$ ft. high. Leaves rather scanty, and pale gray-green.
In the lower leaves the leaflets are often joined together so as to form
one broad rounded leaf-blade; the leaves at the top of the stem are
often curled and wavy, with pointed leaflets puckered at the edges.
Flowers, white, numerous, in rather strong clusters, and hardly ever
producing seed. The haulms or stalks of this variety are remark-
ably slight and slender, and do not cover the ground beneath them.
This is a very distinct potato; it was formerly a great favourite,
but, at the present day it has been superseded by more productive
kinds, although of superior quality and an excellent keeper. If
planted in April, new potatoes may be dug about the end of
August. In the neighbourhood of Cherbourg, where it is very

Robertson's Giant Kidney Potato (natural size).

extensively grown, the mildness of the climate permits of its being
planted in December, the crop coming in in June or July.

Cardinal Potato.—Tubers medium-sized, oblong or almond-
shaped, very red; flesh pale yellow, sometimes slightly streaked
with pink, firm and floury; the shoot red. The stems are short,
thin, spreading, slightly violet, scarcely winged; the leaves few,
small, light green; leaflets of unequal sizes, oblong, rounded, not
much reticulated. The flowers are white, and fall off before they
open. A very productive variety, of excellent quality, the tubers
are regular in shape and keep well. A mid-season variety and a
healthy vigorous plant.

Pousse-debout Potato.—Tubers almost cylindrical, narrowed
at the ends, from about $3\frac{1}{2}$ to 4 in. long, and between 1 and 2 in. in
diameter; skin pale red, rather smooth, eyes faintly marked and
prominent; flesh yellow; shoot pink. Stems vigorous growing,
erect, branching, generally short, seldom exceeding from 20 in. to
2 ft. in height, and tinged with coppery red, as are also the leaf-
stalks. Leaves broad and large, dark green, composed of broad, rounded, pointed leaflets. Flowers white, large, in rather numerous and compact clusters; they usually produce no seed. This is a productive variety and keeps well. The flesh is more compact than that of the preceding kind, and not so floury. The tubers ripen in September.

**Vitelotte Potato.**—Tubers almost cylindrical, somewhat thicker towards the top than at the bottom; eyes numerous, each situated at the bottom of a deep wrinkle; skin red, rather smooth; flesh white, sometimes slightly zoned with red, especially at the end farthest from the point of attachment to the underground stem; shoot red. Stems erect, very stiff, vigorous, quadrangular and winged, tinged with brown, often branching, seldom more than from 20 in. to 2 ft. high, very thick-set and well furnished with
leaves. Leaves short, of a slightly gray-green colour; leaflets oval, rounded, rather pointed, especially those towards the top of the stem, very much reticulated, and often folded in two. Flowers white, very seldom seeding. This variety is not so highly esteemed nowadays as it was formerly; nevertheless it is of excellent quality, rather productive, and keeps very well. It has the defect of being difficult to peel, and much of the tuber is wasted in that operation. The crop comes in in the course of September. The best variety for salad.

V. VIOLET-COLOURED VARIETIES

Violet - coloured Quarantaine Potato. — Tubers flattened, smooth, kidney-shaped or almond-shaped, often from 4 to 6 in. long, and 2 in. or more in diameter at the thick end; skin exceedingly fine and thin, violet, smooth; flesh yellow; shoot violet. Stems rather slender, brown, usually drooping, and seldom exceeding from 2 to 2½ ft. in length. Leaves medium-sized or small, with rounded, gray, very much reticulated leaflets. Flowers white,
seldom showing, and never seeding. This is a mid-early variety, not very productive, but of very good quality. It keeps well and without sprouting, and is, perhaps, the best of all varieties for table use in spring, becoming more floury and improving in quality as the season advances.

Négresse Potato.—Tubers long, cylindrical; eyes deeply set like those of the Vitelotte; skin almost black, also flesh. Stems weak, purple; foliage curled and reticulated; flowers white. A variety not productive, but curious for the colour of its flesh.

Vicar of Laleham Potato.—Tubers very large, regular spherical in shape, or slightly flattened, smooth, with eyes faintly marked. The skin is purple, sometimes rather rough; the flesh is white, floury and light. The stems strong, but not long compared with the great productiveness of the plant and the size of the tubers. The flowers are white, scarce, and usually sterile. A fine half-early, very productive Potato, succeeding best in light rich soils; the tubers not very numerous, but large and keeping quite well.
Czarina Potato.—Tubers large, rounded or oblong, notched with a more or less deep red blotch around the eyes. Flesh very pale yellow, shoot pink. Stems trailing, strong, leaves abundant, with large leaflets; flowers violet with white points, produced in bunches. It is much grown for cattle-feeding and industrial
VARIEGATED POTATOES

purposes, being very productive, rich in starch, and keeping well. It is besides of sufficiently good quality for the table.

La Bretonne Potato.—Tubers rounded or oblong, flattened on one side. The skin rosy white, slightly red near the eyes. The flesh is white and of good quality; the stems tall and stout,

with vigorous branches; the foliage light gray-green in colour, and the flowers white. This Potato, though not a cattle-feeding one, is remarkable for the abundance of its yield. Its flesh is floury, and it is one of the best among table Potatoes.

Peake's First Early Potato (Blanchard).—Tubers round, sometimes flattened, yellow, plentifully variegated with violet, especially towards the top and around the eyes; skin smooth; flesh yellow; shoot violet-coloured. Stems stout, usually prostrate, almost always branching, from about 2½ to over 3 ft. long, tinged with brown, especially towards the base. Leaves medium-sized, composed of oval-acuminate, rather reticulated leaflets, light green.
Flowers very numerous, large, lilac-blue, a large proportion of them seeding. This Potato seeds, perhaps, more abundantly than any other of the ordinary kinds. It is a good, early, productive variety, and keeps well. The flesh is floury and very yellow. The crop may be dug about the end of July. The tubers are never very large, but they are very plentiful, and of fairly uniform size.

**Incomparable Potato.**

—Tubers oval or almond-shaped, smooth, with eyes almost level; the skin is yellow, and usually blotched with purple-red; the flesh is yellow, the shoot violet. The stems are thick and angular, trailing, and sometimes striped purple; the leaves are small, curled; the leaflets oval-pointed, hairy and folded over. The flowers are flax gray and often fertile. A handsome Potato, with regularly shaped tubers. Exclusively a cooking potato, half-early, but not productive.
In addition to those already described, some of the best known or most noteworthy English and other varieties are:

I. FRENCH VARIETIES

Achille Lémon.—Tubers slender and elongated, usually curved, and much narrower at one end than at the other; skin very smooth, golden-yellow, marked with broad dark violet spots, especially at the end of the tuber and near the eyes, which are very slightly sunk; flesh deep yellow, rather firm, and very fine. A half-early, moderately productive variety.

Artichaut Jaune.—Tubers long, slender, almost cylindrical, very much notched, and like those of the Vitelotte Potato, only that they are yellow instead of red. A floury, half-late variety, now almost gone out of cultivation.

Aspasie.—A vigorous-growing late variety. Tubers regular, oblong, large, flattened; skin coppery pink; flesh white, very rich in starch.

Belle Augustine.—Tubers pale yellow, oblong, flattened, usually somewhat kidney-shaped; skin smooth; eyes faintly marked; flesh yellow; shoot violet-coloured. A rather dwarf, early, and productive kind, coming in eight or ten days earlier than the Yorkshire Hybrid Potato. It is grown to some extent in the vicinity of Paris for the supply of new potatoes.

Belle de Vincennes.—Tubers oblong, flattened, smooth, almost without eyes, remarkably handsome, and resembling the Snowflake Potato in appearance; shoot violet-coloured. Stems stout, tinged with brown, usually twisted; leaves broad, numerous, and dark green; flowers violet, in rather crowded clusters. This variety seeds abundantly.

Bonne Wilhelmine.—Tuber small, round, bright yellow, smooth; eyes but little marked; flesh very yellow; shoot purple.

Brandale.—Tubers yellow, long, almond-shaped; flesh butter-yellow; shoot violet. Stems short, spreading, brown or violet; leaves small, with small dark green leaflets, much reticulated; flowers white. An early variety much grown in Southern France.

Caillaud.—Tubers round, medium-sized or large, yellow, slightly tinted with salmon colour; shoot pink; skin usually wrinkled; flowers white. A stout-growing, productive, half-late variety, very good for field culture, and resembling the Jeancé Potato except in the flowers, but not so productive as that variety.

Chandernagor.—Productive half-late variety. Tubers slightly elongated, somewhat notched, black purple; flesh strongly tinged with violet, but very fine and of excellent quality; shoot violet.
Chardon.—Tuber very large, round, sometimes long; eyes much sunk; skin smooth, pale yellow; flesh pale yellow; shoot pink.

Comice d'Amiens.—A very handsome, small, early kind, with round, small, or medium-sized tubers, of a yellow colour variegated with pink; shoot pink. Flowers white. A very early, but not very productive variety, which might be suitable for forcing.

Des Cordillères.—Tubers yellow, round, very smooth, small, and very numerous; flesh yellow; shoot violet-coloured. The plant is of tufty growth, with numerous stems. Foliage scanty. A very distinct kind, but of no great account for kitchen-garden culture.

Descroizilles.—Tubers rounded or slightly oblong, somewhat irregular in shape; eyes rather deeply sunk; skin pink or very pale red, slightly wrinkled; flesh yellow; flowers white. A late variety, rather deficient in productiveness, but of good quality.

Excellente Naine.—A very handsome and good variety, resembling the earliest forms of the Pomme de Terre Royale. The stems are hardly longer than those of the Marjolin Potato, for which this variety might be substituted in frame culture, being quite as productive and quite as early.

Grosse Jaune Deuxième Hâtive.—This Potato is rather extensively grown in the fields in the vicinity of Paris. It is, properly speaking, only a sub-variety of the Shaw, or Regent, Potato, with somewhat larger tubers, and ripening from eight to ten days later.

Hâtive de Bourbon-Lancy.—Tubers medium-sized, quite round or very slightly flattened, variegated with yellow and violet colour disposed in bands rather than in round marblings. A moderately vigorous early-ripening variety, with lilac flowers, which are generally abortive.

Jaune Longue de Hollande.—Formerly the most extensively grown and the most highly esteemed Potato for table use; since the appearance of the Potato-disease it has been almost entirely superseded by the Quarantaine de Noisy Potato and its sub-varieties. The following were its characteristics: Tubers long, almost always curved, and much thicker at one end than at the other; skin grayish yellow, slightly wrinkled; flesh yellow, very floury, and very fine in texture; shoot pink. Stems rather short, twisted;
leaves curled and reticulated; flowers lilac-red. This is a rather late kind, and never very productive.

**Jaune Ronde Hâtive de Provence** (*Round Early Provence*).—Tubers large, round, light yellow, regular in shape, slightly notched; flesh very light yellow; shoot violet. Stem thick, vigorous, angular, spreading; leaves very large, with slightly reticulated leaflets; flowers white. An early and very productive Potato, well suited for export.

**De Malte.**—Tubers very large, round; eyes very deeply sunk, and rather like those of the Jeancé Potato; shoot pink. Stems usually trailing on the ground, green, and from about 2½ to over 3 ft. in length; leaves clear green, curled, and reticulated. The flowers are constantly abortive.

**Marceau.**—Remarkable for the great size of its tubers which are flattened, oblong; skin pale yellow, somewhat rough; flesh yellow; shoot violet.

**M. Eiffel.**—Early and very productive, in shape resembles the Cottager's Red Potato, but is rather longer and pale yellow; flesh white; shoot pink. Stems rather short; leaves large, smooth, spreading.

**Naine Hâtive.**—Tubers small or medium-sized, round; eyes faintly marked; skin yellow, rather smooth; shoot violet-coloured; flesh yellow. Flowers lilac. Stem short and weak, seldom exceeding from 16 to 20 in. in length. An early variety, but a very poor cropper.

**Noisette Sainville.**—A miniature Potato, with a very appropriate name, as the size of the tubers is only about that of a hazel-nut (*noisette*), very rarely exceeding that of a good-sized almond. They are ovoid and slightly flattened in shape, of a grayish yellow colour, and with a slightly wrinkled skin. The eyes are hardly visible; shoot violet-coloured. Stems very small and weak; leaves gray; flowers white. This variety has been recommended on account of the fine quality of the flesh of the tubers, but its produce is so trifling that it is hardly worth growing.

**Oblongue de Malabry.**—Tubers oval, pale yellow, not notched; flesh white; shoot white, faintly tinged with violet colour. A very productive and moderately early variety.

**Pasteur.**—Tubers oblong, very smooth, elongated; flesh yellow, fine and floury; shoot violet-coloured; ripens mid-season.
**Patraque Blanche.**—An exceedingly productive kind, with grayish white, slightly pink-tinted tubers, which are oblong in shape, squarish at both ends, and tolerably notched; flesh white; shoot pink. Stems very long and very vigorous growing; leaves gray; flowers pink, numerous. This variety produces a considerable number of tubers of medium size. It is a rather late kind, and is more grown for feeding cattle than for table use.

**Quarantaine à Tête Rose.**—Tubers oblong or almond-shaped; skin smooth, yellow, variegated with red near the eyes, especially at the end of the tuber; flesh yellow. Stems short, erect; leaves grayish. A half-late and rather productive variety. When grown in a light soil, the tubers of this variety have an extremely handsome and quite distinct appearance.

**Reine Blanche.**—A handsome, rather late variety. Tubers medium-sized, or large, very round, white, with a red spot around each of the eyes, which are rather deeply sunk; shoot pink. Stems erect, vigorous growing; leaves abundant, dark coloured; flowers reddish violet, in broad clusters. The tubers of this variety have a very handsome appearance, but are of only middling quality.

**Reine de Mai.**—Tubers oblong or almond-shaped, flattened, very smooth, and nearly white; shoot pink. Stem rather slender and bare of leaves; flowers white. This is an early variety, and very handsome when well grown, but it is exceedingly delicate, and the tubers are very often spotted.

**Rickmaker.**—A very productive, half-late Potato, with oblong, deeply notched, pale yellow tubers and pink shoot; stems long and trailing. Contains a great deal of starch.

**Rognon Rose** (*Belgian Kidney Potato*).—Tubers flattened, usually almond or kidney-shaped, very smooth; skin light pink, yellowish; eyes faintly marked; flesh yellow; shoot pink. A productive variety, ripening mid-season, and keeping well.
Rohan.—Very closely allied to the Patraque Blanche Potato, from which it is only distinguished by its tubers being more reddish coloured. It is a productive kind, and well adapted for field culture.

Rosée de Conflans (Rosace de Villiers-le-Bel).—Tubers long, almost cylindrical, very slightly notched, usually pink-coloured towards the top and salmon-tinted yellow at the bottom; shoot pink. Stems rather short and stiff; leaves numerous, dark coloured; flowers white. A half-late and rather productive kind. The flesh of the tubers is yellow, firm, and not easily bruised.

Rosette.—A handsome variety, a seedling of the Early Rose. Tubers flattened, rounded, dark red, smooth; flesh white, light. A half-early variety.

Rouge Ronde de Strasbourg (Wéry).—Tubers medium-sized; skin usually somewhat wrinkled and of a rather deep red colour; shoot red; flesh yellow. Stems very stiff and strong, brown; leaves dark green; flowers reddish lilac. A good common variety, productive, and coming in in mid-season.

Sainte - Hélène.—Tubers handsome, yellow, very smooth, oblong, flattened, and slightly kidney-shaped; eyes very faintly marked; flesh yellow. Stems rather short and pliant; leaves broad, dark green; flowers violet, not very numerous, but very large. Tubers ripen half-early. A fine kitchen-garden variety.

Saint-Germain.—A handsome red Potato, rounded, flattened; flesh yellow. Flowers small, pinkish.

Saucisse Blanche.—In shape this variety resembles the Cottager’s Red Potato, but the tubers are white or pale yellow, with red blotches round the eyes and at both ends; flesh yellow; eyes faintly marked; shoot pink.

Tanguy.—This kind is rather extensively grown in Brittany. It comes very near the Segonzac or Saint-Jean Potato, but its tubers are of a paler yellow and rounder, its stems are thicker, and its leaves are of a paler green. When grown in the sandy or granitic soils of the coasts of Brittany, the tubers are very fine and floury. Large quantities of them are exported to England.

Tardive d’Irlande.—Tubers rounded or oblong, rather notched, and of a yellow colour variegated with red; flesh white; shoot pink. Stems scanty; leaves slightly gray; flowers lilac, small. A late variety and a poor cropper. Its chief merit is that the tubers will keep for a long time without sprouting.

Truffe d’Aout.—Tubers medium-sized, rounded, bright red; eyes moderately sunk; flesh yellow; shoot red. Stems erect,
rather stiff; leaves dark gray-green; flowers white. A mid-season variety, productive, and, many years ago, well known and highly esteemed.

**Violette (Hundred-fold Potato).**—A very old and productive variety, grown for about a century, and occasionally comes still to the Paris market. Tubers round and often squared at both ends, notched, eyes deeply sunk; skin deep purple; flesh yellow; shoot violet.

**Xavier (Patte Blanche).**—Tubers oblong, almost cylindrical, pale pink, slightly notched; flesh yellow-white; shoot pink. Stems

![Violette (Hundred-fold) Potato.](image)

![De Zélande (Red Regent) Potato.](image)

rather long; leaves gray; flowers white. This variety is worthy of recommendation on account of its good quality, but it is very liable to be attacked by the disease.

**Yam, or Ighname.**—Like the preceding variety, this one also suffers greatly from the disease, and it is difficult now to meet with it in a perfectly healthy and vigorous condition. The tubers are oblong, rather large, almost cylindrical, and slightly notched; skin pale red, smooth; shoot red.

**De Zélande (Red Regent or Gosforth Seedling).**—An excellent half-late variety, keeping well. Tubers round, medium-sized; skin bright red, slightly rough; eyes faintly marked; flesh yellow; shoot red.

II. **ENGLISH VARIETIES**

**Alice Fenn.**—Tubers oblong, kidney-shaped, very regular; skin yellow, smooth; flesh pale yellow; shoot violet. Stems very scanty, slender and pliant; leaves small and few; flowers violet. A handsome, rather early, but not very productive kind.

**Bovinia.**—Tubers very large, long, broad, flattened, rather deeply notched, and yellow variegated with red, especially towards the top and near the eyes; flesh yellow-white. Stems vigorous growing; leaves large. A very late variety, producing tubers which sometimes weigh over two pounds each, but are not very
POTATOES: ENGLISH VARIETIES

numerous. The flesh is watery and of only middling quality. The variety is more curious than useful.

Britannia.—Tuber yellow, long; flesh yellow; shoot white. Resembles very much the Royal Ash-leaf Potato.

Coldstream, or Hogg's Coldstream.—Tubers round, small or medium-sized; skin and flesh yellow; flowers and shoot violet. Stems small and pliant, generally prostrate; leaves rounded, grayish green. A very good, hardy and early kind, but only moderately productive.

Dalmahoy.—Tubers round, small or medium-sized, white; eyes rather well marked, but not very deeply sunk; shoot violet. Stems erect, short, seldom exceeding 1 ft. in height; leaves gray, rather crumpled, with large pointed leaflets. The flowers fall off without opening. A selected form of the Regent.

Dawe's Matchless (Synonyms: Excelsior Kidney, Webb's Imperial, Early Bryanstone Kidney, Manning's Kidney, England's Fair Beauty, Chagford Kidney, Wormley Kidney, Champion Kidney).—A very fine and productive mid-season Potato. Tubers remarkably handsome, oblong, sometimes flattened, sometimes kidney-shaped, exceedingly smooth, nearly white, and often measuring 5 or 6 in. in length, by 2 in. or more in diameter; eyes hardly marked; flesh white; shoot violet. Stems rather vigorous, erect; leaves rounded, reticulated, and of an almost black-green colour; flowers white. This variety is not much grown in France, where we cultivated it for some time by mistake under the name of P. Confederee. The true P. Confederee (a synonym for P. Marceau), however, has violet-coloured flowers and broader and yellower tubers.

The Dean.—Tubers round or slightly flattened, skin dark purple, and wrinkled; flesh yellow; shoot violet. A half-late, fairly productive variety, remarkable for the regular shape and dark colour of its tubers.

Early Emperor Napoleon.—Tubers almost spherical or slightly flattened, and entirely devoid of eyes; skin slightly wrinkled, red, and, in exceptional cases, variegated with yellow; shoot red; flesh yellow-white. Stems slender, usually trailing on the ground; leaves exceedingly narrow and gray; flowers red, in thin clusters. A half-early and not very productive kind, but remarkable for the handsome appearance and regular shape of the tubers.

Early June (Kerr).—Tuber flat, almond-shaped, yellow, smooth; shoot white; flesh yellow. A sub-variety of the Royal Ash-leaved Potato.

Early May Queen.—Tubers small, round, red, rough-skinned; eyes well marked; flesh white; shoot white. Resembles Early Rose.
Early Puritan.—Tubers yellow, smooth; eyes numerous, broad, not much sunk but well marked; flesh white; shoot white. Leaves light green, rather small, slightly spoon-shaped.

Fenn's Early Market.—Tubers round, small, or medium-sized rather flattened; skin yellow, smooth; eyes not much sunk; shoot pink; flesh nearly white. Stems of very scanty growth, weak, and pliant; leaves pale green; flowers white, not numerous. This excellent small variety is one of the earliest of all the Round Yellow Potatoes, and is remarkable for the small size of its stems.

The Garton.—Tubers yellow, round, smooth; eyes very few; shoot and flesh white. Very like the Van der Veer Potato.

Gem (Kerr).—Tubers yellow, round; eyes few, lightly notched; flesh white; shoot violet-coloured.

General Roberts (Kerr).—Tubers yellow, long, flattened; eyes few, not notched; flesh white; shoot copper-pink. A late variety, vigorous. Stem copper-coloured, erect; flowers reddish lilac, numerous, in large erect clusters.

Giant Reading.—Tubers large, oblong or kidney-shaped, yellow, smooth; flesh white; shoot pink. Stems numerous, vigorous, short, spreading, slightly angular; leaves abundant, long, with short petioles; leaflets medium-sized, oval or oblong, very hairy, often folded; flowers falling off. This variety bears some resemblance to the Magnum Bonum, but is more productive. It is not liable to disease, and keeps well.

Golden Eagle and Radstock Beauty.—It is very difficult to distinguish these two varieties from each other, and they are probably identical. The tubers are yellow, variegated with red, round, and slightly flattened in one part; skin very smooth and having a very pretty and very peculiar appearance; shoot red. Stems of moderate height; leaves dark green; flowers red. Tubers rather late to ripen and moderately productive.

G rampian.—This variety very much resembles the Early Emperor Potato, described above, but has somewhat darker and more numerous leaves and redder flowers. The tubers do not exhibit any well-marked difference. The Grampian Potato is distinguished by the remarkably regular and symmetrical shape of the tubers, which are spherical or flattened, but always rounded in outline. They are almost entirely devoid of eyes and are of a fine red colour; they are also hardy and rather productive, ripen half-late, and keep very well.

Harbinger (Sutton).—Small, round, distinct tuber; shoot red. Leaves resembling those of Sharpe's Victor Potato, or even larger.

International Kidney.—A half-late variety, tuber almond-shape, smooth, well shaped and often very large, almost white; flesh very pale yellow; shoot violet.
King of Flukes (*Meldrum Conqueror*).—Tubers oblong, often rather short, slightly flattened; skin golden-yellow; eyes faintly marked; flesh very yellow, fine, and of excellent flavour; shoot violet. Fairly productive, ripens mid-season.

**Lady Webster.**
—Tubers round, very smooth, somewhat flattened, yellow, and rather plentifully variegated with red; shoots red. Stems short and drooping, green; leaves not numerous, with very glistening leaflets, resembling those of the Early Marjolin Potato.

**Leda** (*Kerr*).—Tubers oblong, pale red; eyes very few, slightly notched; flesh yellow; shoot pink. Vigorous, erect stems. Flowers small, white. Resembles in habit the Red Regent, and its tubers are those of the Early Rose.

**Lord of the Isles** (*Kerr*).—Tubers yellow, oblong; eyes few, not notched; flesh white; shoot pink. Very like Early Rose in its vegetation, but the leaves are smooth and more erect. Flowers white.

**Milky White.**—Tubers white, slightly salmon tinted, very smooth, flat in one part, oblong, and without eyes or notches; shoot pink. Stems of scanty growth; leaves slight, pale green; flowers white. A handsome half-early variety, producing very clean-skinned tubers; but several American varieties have a still finer appearance, and are, at the same time, more productive.

**Model.**—Tuber pale yellow, very regularly rounded, slightly flattened; eyes faintly marked; skin smooth or rough, according to the soil; flesh pale yellow; shoot violet.
Mona's Pride.—A variety very closely resembling the Early Marjolin Potato in its habit of growth, but differing entirely from it in the shape of the tuber, which is very short, or even round and flat. It is also somewhat later and somewhat more productive than the Marjolin Potato.

Our Boys (Kerr).—Tubers yellow, long, kidney-shaped; eyes few, slightly notched; flesh pale yellow; shoot violet. Stems long and strong, slightly copper-coloured; flowers white, in large clusters. Ripens late.

Paterson's Victoria.—A half-early variety, very floury, keeping perfectly, disease resisting. Tubers oblong or rounded, flattened; eyes faintly marked; skin salmon-yellow; flesh yellow; shoot violet.

Porter's Excelsior.—One of the most perfect Potatoes as regards the shape of the tubers, which are rounded, yet flattened as pebbles are, being nearly twice as broad as they are thick; skin yellow, smooth; flesh pale yellow; shoot pink. Stems trailing on the ground; leaves not numerous, dark green; flowers white. This is a half-late variety; it is not very productive, and its chief merit consists in the handsome appearance of the tubers.

Professor (Kerr).—Tubers red, elongated, shaped like those of Early Rose; eyes numerous, notched; flesh white; shoot red. Stems strong, coppery, almost erect. Flowers pink, numerous, seeding abundantly.

Purple Ash-leaved Kidney (Synonyms: Jersey Purple, Black Kidney, Black Prince, Select Blue Ash-leaf, or Paterson's Long Blue).—Tubers long or very long, flattened, more or less kidney-shaped, and very smooth; skin dark violet colour, even, without wrinkles or hollows around the eyes. Stems rather slender and brown; leaves not numerous and of a dark gray-green colour; flowers lilac. A rather early kind, tolerably productive, and of good quality. Many people do not like the dark violet colour of the tubers.

Reading Russet.—Productive, ripening mid-season. Tubers slightly elongated, thick, eyes faintly marked; skin somewhat rough, grayish red; flesh pale yellow; shoot red.

Rector of Woodstock.—Tubers very regular in shape, round, but slightly flattened; skin somewhat wrinkled, grayish white, faintly tinged with yellow; eyes hardly marked; flesh white, very floury, and fine flavoured; shoot violet-coloured. Stems very short; leaves slight, slender, and few; flowers violet, rarely produced. This small variety is only
moderately productive, but the tubers are of fine quality and exceptionally handsome. It is one of the best varieties raised by Mr. R. Fenn.

Rentpayer.—Tubers yellow, usually round, sometimes long; eyes few, not notched; flesh white. A good sub-variety of Magnum Bonum.

Saint Patrick.—A productive and vigorous kind. Tubers white or pale yellow, oblong, not flattened, and rather irregular in shape; flesh white.

Schoolmaster.—Tubers large, round, generally even and regular in shape; skin rough, white; very handsome, and of first-rate quality; shoot pink. Flowers white. Great cropper; one of the best Potatoes grown.

Scotch Blue.—Tubers rounded, flattened in one part, smooth; eyes faintly marked; skin thin, and of a dark, almost blackish violet colour; flesh white; shoot dark violet. Stems rather short, but vigorous growing; leaves rather broad, gray; flowers violet-coloured. A half-late, rather productive, and very hardy variety, of fine quality.

Standard.—This variety is recommended for its handsome smooth white tubers and the delicate flavour of the flesh, which is white and floury. It is a pretty early and very productive kind, and is highly esteemed for table use.

Superb (Kerr).—Tubers yellow, round; eyes numerous, slightly notched; flesh very white; shoot pink.

Turner's Union.—Tubers yellow, round, small or medium-sized, and pretty regular in shape; eyes somewhat sunk; flesh pale yellow; shoot yellowish white, with a violet-coloured point. Stems of scanty growth. Leaves rather large, but not numerous. Flowers lilac, usually abortive. A good small-sized early variety, but there are many others of much more account.

White Emperor.—A rather vigorous but short-stemmed variety. Tubers very smooth, nearly white, round, and slightly flattened, very like those of the Model and Schoolmaster Potatoes; shoot lilac. Leaves reticulated, and dull green.

Wonderful Red Kidney.—A half-early variety. Tubers flattened, elongated, or somewhat kidney-shaped; skin red, very smooth; eyes faintly marked; flesh pale yellow; shoot red.

Woodstock Kidney.—A handsome vigorous variety. Tubers white, oblong, smooth, and well shaped; shoot violet. Stems stout
and brown. Leaves broad, and light green. Flowers violet, in strong clusters, and seeding abundantly. Somewhat subject to disease.

**Wormleighton Seedling.**—A half-late variety with medium-sized stems and very large smooth almond-shaped tubers, handsome in appearance, but only fair in quality. *

### III. American Varieties

For the last thirty years the Americans have been active in sowing Potato-seed for raising new varieties, and now rival the English raisers in the success which has attended their efforts. A great number of their new varieties—such as the Early Rose, Snowflake, etc.—were at once adopted by Potato-growers in Europe as well as in America. These varieties have already been described by us as of the first rank, and we shall now mention some others, which, perhaps, only require to be better known in order to be as well appreciated.

**Adirondack.**—A vigorous mid-season variety. Tubers round or slightly flattened, smooth, pale red; flesh white; shoot pink. Stems erect; leaves broad; flowers reddish violet.

**Alpha.**—An early variety. Tubers white, slightly elongated, somewhat flattened; stems short; leaves fairly large, but scanty.

**Bresee's Peerless.**—Tubers handsome, very much flattened, almost as broad as long, oblong or sometimes heart-shaped, and almost always notched at the bottom; skin and flesh white; shoot pink. Leaves pale green, broad, and somewhat curled; flowers white. A half-early and exceedingly productive variety.

**Bresee's Prolific.**—In productiveness and quality comparable to Early Rose. The tubers are flattened, oblong, sometimes almost square at both ends; skin smooth, pale yellow more or less tinged with salmon-red, flesh white; eyes faintly marked; shoot pink.

**Brownell's Beauty.**—Tubers oblong, rather flattened, and usually very broad; skin somewhat wrinkled, and a dark, slightly vinous, red; flesh white; shoot pink. Stems erect and vigorous; leaves rather broad, and yellowish green; flowers lilac-red. A very productive mid-season variety, of great merit. The tubers are very handsome and generally very regular in shape.

**Calico.**—Productive, half-late. Tuber rounded or oblong, but always flattened, skin very smooth, bright yellow, with broad red stripes; eyes scarcely marked, flesh pale yellow; shoot red.

**Centennial.**—Tubers bright red, spherical or slightly flattened, and very smooth; eyes hardly marked; shoot red. Stems of medium size; leaves broad, pale green; flowers reddish. A half-early and rather productive variety. The tubers keep well for an American kind.

* Select List of Varieties, see pp. 770, 771.
Compton's Surprise.—A vigorous half-early variety; tubers purple, oblong, resembling those of Early Rose, except that they are purple; flowers white.

Early Cottage.—A very productive variety. Tubers large or very large, rounded, and thick; eyes rather deeply sunk; skin often wrinkled, and very pale yellow; flesh white. Stems rather scanty in growth compared with the weight of the crop of tubers; leaves gray-green and rather curled; flowers lilac, usually abortive.

Early Goodrich.—Tubers oblong, thick, not much flattened, often almost pointed at the top; flesh and skin white; shoot pink. Leaves of a very light green, almost yellow; flowers white. A handsome and productive variety, but too often attacked by the disease.

Early Ohio.—Tubers pink, smooth, oblong; eyes very faintly marked; shoot red. Stems erect, stiff, slightly tinged with copper colour; leaves very broad, flat, with extremely large leaflets of a light and grayish green. This variety does not flower.

Eureka.—Tubers long, rather flattened, often square at the ends, and sometimes slightly notched; skin white, hardly yellow, and very slightly wrinkled; flesh white; shoot pink. Stems of scanty growth; leaves of a very light green; flowers white. A very productive and rather early variety. The tubers are rather irregular in shape, and sometimes quite nondescript in this respect.

Extra Early Vermont.—There is only an exceedingly slight shade of difference between this Potato and the Early Rose, so that they are often mistaken one for the other. The tuber of the Extra Early Vermont is a little broader and flatter, and ripens two or three days earlier than that of the Early Rose.

King of the Earlies.—Tubers somewhat angular or irregular in shape, rounded and slightly flattened in their general outline, and with the eyes rather deeply sunk; skin smooth, but dull in hue, of a salmon-tinted and grayish pink colour; flesh white and floury; shoot pink. Stems of very scanty growth; leaves broad, of a pale grayish green, withering very early, without any flowers. This is really one of the earliest of all Potatoes.

Late Rose.—In many respects this variety is very like the Early Rose, and even the difference in earliness which exists between the two varieties does not exceed ten days. The Late Rose, however, is distinguished by the greater size of its tubers, which, on the other hand, are not so numerous as those of the Early Rose. They are also of a purer pink, and not so much tinged with salmon colour.

Manhattan.—Tubers round, slightly flattened, and variegated with yellow and violet colour; shoot pink, spotted with violet. Stems short and stiff, about 2 ft. high; leaves rather abundant, broad, rounded, gray-green, much folded and reticulated; flowers generally wanting.
Peach-blow.—Tubers rounded, very smooth, and of a fine white colour, slightly tinged with pink around the eyes; shoot pink. Stems erect, stiff, vigorous, and spotted with brown; leaves numerous, rather slender, and light green, with oval-acute leaflets; flowers numerous, violet-red, hardly ever producing seed. There is a sub-variety, named the White Peach-blow, in which the eyes are not tinged with pink.

Queen of the Valley.—Tubers very handsome, large, oblong, slightly flattened, and very smooth; eyes few and faintly marked; skin very pale red; shoot pink. The tubers are very like those of Brownell's Beauty, but are not so dark coloured.

Ruby.—Tubers oblong, slightly flattened, smooth, regular in shape, and of a bright red colour; flesh white. Stems of medium size, and rather vigorous growing; leaves of a pale and somewhat grayish green colour. A half-late variety.

Triumph.—Tubers round and of a rather bright-red colour; eyes slightly marked and not very deeply sunk; shoot pink. A half-early and productive variety.

Willard (Red Fluke).—Tubers oblong or pear-shaped, almost pointed at the top and thick at the bottom; skin rather smooth, bright red, sometimes marbled with yellow; shoot pink. Stems erect and stiff; leaves light green; flowers lilac-red. A very distinct and rather handsome variety, but very subject to be attacked by the disease.

IV. GERMAN VARIETIES

Abdul Hamid (Paulsen).—Tubers yellow, oblong; eyes few and but little notched; flesh yellow. A half-late variety, with short thick stems. Leaves crimped; flowers lilac.

Achilles.—Tubers large, rounded; eyes somewhat sunk. Stems very vigorous, over 3 ft. high, quadrangular, winged, and spotted with brown; leaves numerous, but small, very much reticulated, curled, and of a blackish green colour; flowers lilac, in numerous clusters, and yielding seed.

Alkohol.—Tubers round, somewhat flattened; eyes rather numerous and well marked. Stems about 2½ ft. high, stout, green, quadrangular, and erect; leaves broad, clear green, and somewhat crimped; flowers white, abortive.

Aurora.—Tubers oval, flattened; eyes numerous and pretty well marked. Stems thick, copper-coloured, often trailing, and about 2 ft. 8 in. long; leaves very abundant, flat, and of a clear, slightly grayish, green; flowers white, abortive.

The four preceding varieties were raised by Mr. Paulsen, who has devoted his attention to the production of new varieties of
Potatoes in Germany, as Mr. Fenn and Mr. Kerr have in England, and Mr. Breesee in America.

**Biscuit.**—A vigorous and rather productive variety. Tubers small and very numerous, yellow, rounded, and slightly notched; shoot pink. Stems rather long and slender; leaves slight, pale green. Ripens half-early.

**Bismarck.**—Much extolled some years ago; but seldom grown now; very rich in starch, but a poorcropper. Tubers small, round, red; skin much split. Stems brown; leaves dark green.

**Blaue Riesen.**—Tubers very large, oblong, dark purple, often knobby; flesh very white; shoot violet. Stems strong and very long, usually spreading, and violet; leaves small, dull green; leaflets small, oval-pointed, hairy and more or less reticulated; flowers violet striped white, falling without seeding. A field Potato, one of the few sorts that are unfit for the table. It is largely grown for starch, but its production is liable to variations, for which reason growers now prefer sorts of the Imperator type.

**Euphylllos.**—Tubers white or faint pink, round or oblong; eyes moderately sunk. A vigorous, productive, half-late variety, with large fine leaves, smooth, even, and light green, whence the variety derives its name. It is one of the varieties raised by M. Paulsen.

**Feinste kleine weisse Mandel.**—Tubers ovoid, small, very numerous, nearly white, smooth, and without eyes; shoot violet. Stems large; flowers white. The quality of the tubers is good, but they are rather small sized.

**Frühe blaue Rosen.**—Tubers round, pale red, slightly striped purple; eyes few, faintly notched; flesh white. Leaves small, quite green; flowers white. A variety for field culture.

**Frühe rothe Mä rkische.**—A good, hardy, and productive field variety. Tubers red, nearly round, and rather smooth; shoot red; flesh yellow. Stems vigorous, often trailing; leaves gray-green; flowers red. Ripens half-late.

**Gelbe Rose (Paulsen).**—Tubers round, slightly tinged with pink; flesh white, shoot pink; but little grown now.

**Globus (Richter).**—Late, productive, and vigorous. Tubers yellow, large, round, sometimes irregular in shape; eyes numerous, deeply sunk; flesh yellow.

**Hannibal (Paulsen).**—Productive, rather late, suitable for field culture. Tubers round, slightly flattened; skin thin, pink, coloured more deeply round the eyes; flesh white; flowers white.

**Hermann (Paulsen).**—A late, productive variety, for field culture. Tubers round, medium-sized, somewhat knobby; eyes pretty deeply sunk; shoot violet-coloured.

**Juno (Paulsen).**—Tubers flattened, oval or slightly square at the ends; skin pinkish white, more deeply coloured around the eyes and at the ends; flesh yellowish white; shoot pink. For field culture.
Kaiser-Kartoffel.—A fine, vigorous, and rather early kind, resembling certain American varieties, especially Bresee's Prolific; it is, however, somewhat later and produces larger tubers. In habit of growth it is much the same.

Karlder Grosse.—Tubers yellow, round; eyes numerous, notched. Flesh and flowers white.

Kleopatra (Paulsen).—Tubers small, flattened, red; eyes faintly marked, flesh white. Flowers lilac-red.

Kopsell's frühe weisse Rosen-Kartoffel.—This variety very much resembles Bresee's Prolific, but is somewhat earlier, and has yellower tubers, with less of the pink tinge. The difference, however, is very slight, and it would be no great mistake to consider the two as synonymous.

Lerchen-Kartoffel.—Tubers yellow, round, rather small, but numerous; eyes somewhat sunk; skin very smooth; shoot white. Stems medium-sized, but fairly vigorous; leaves light green; flowers white. This handsome small variety is very distinct. The tubers are of good quality, but only moderately productive.

Mangel-Wurzel (Synonyms: Doigt de Dame, Constance Péraut, Catawissa, Bush Potato).—Tubers long, broad, flattened, oblong, and most usually notched, entirely red, or variegated with red and yellow, and generally very large, sometimes weighing over two pounds each. Most commonly they ripen irregularly and keep badly. A late kind, more suitable for feeding cattle than for table use.

Montana.—Tubers pink, long; eyes few, flesh yellow. A late variety with erect, strong, brown stems; flowers lilac.

Richter's Schneerose.—Tubers large, thick, oblong, white; eyes faintly marked; shoot pink. Stems vigorous, erect, about 2½ ft. high. Leaves stiff, broad, round, and of a dark and somewhat gray green. Flowers pink, opening well, but falling off abortive.

Riesen Sand-Kartoffel (P. de Terre Géante).—Tubers long, flat, yellow variegated with red, especially towards the top; eyes rather deeply sunk; shoot pink. Stems short, very stiff, thick, and green; leaves very much curled and reticulated, rather broad, and of a dark green colour; flowers pink, abortive.

Rosalie (Paulsen).—Vigorous and productive. Tubers oblong, thick, somewhat knobby, eyes not much sunk, marked with pink, as
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is also the end of the tuber; flesh white, fine and very floury; shoot pink. Stems erect, fairly strong; leaves large, light green; flowers pinkish lilac. Early, and rich in starch.

**Rothe Unvergleichliche Salat-Kartoffel.**—Tubers nearly cylindrical, one and a half times or twice as long as broad, very much notched; skin red. Distinguished from those of any other kind by the appearance of the flesh, which is variegated with red and yellow. Stems rather crowded together, vigorous, and very leafy. A somewhat late kind, but keeps well.

**Sächsische Zwiebel-Kartoffel gelbfleischige** (*Rouge de Bohème*).—Tubers round or somewhat long, not flattened, and rather notched; skin entirely red or red variegated with yellow; shoot pink; flesh pure yellow. Stems very vigorous, branching, sometimes nearly $6\frac{1}{2}$ ft. long; leaves very abundant, and dark green; flowers violet-red. A late but very vigorous and productive variety. The tubers keep well, and contain a good deal of starch.

**Sächsische Zwiebel-Kartoffel weissfleischige.**—Tubers rounded, somewhat flattened, of medium and very uniform size; eyes slightly sunk; skin smooth, red; flesh white; shoot pink. Stems luxuriant, long, rather slender, and usually branching and trailing; leaves of a dark and slightly gray green; flowers generally abortive.

**Spargel-Kartoffel** (*P. de Terre Asperge*).—Tubers small, almost cylindrical, but short, being only twice as long as broad; skin and flesh yellow; shoot pink. Stems of medium height, rather slender; leaves clear green; flowers white. A half-late and very distinct small kind, esteemed on account of the firmness of the flesh, which is not easily broken, even when cooked.

**Unica** (*Paulsen*).—Half-early; tubers yellow, round, notched; flesh pale yellow; flowers pink, in large clusters.

**Van der Veer.**—Tuber rounded or slightly elongated; skin smooth or somewhat rough; eyes pretty much sunk; flesh pale yellow; shoot pink. Late and productive; suitable for field culture.

**SWEET POTATO**

*Convolvulus Batatas, L.* *Convolvulaceæ.*


Native of South America.—Perennial, but cultivated as an annual. —Stems creeping, often 10 ft. long or more, with numerous heart-shaped leaves of a dark green colour, sometimes glistening; flowers
axillary, like those of a Convolvulus, seldom blooming in the climate of Paris; roots abundant, very much ramified, and bearing tubers more or less rounded or elongated in shape, according to the variety. The flesh of these tubers is tender, floury, sweet, and, in most cases, rather perfumed. They are the edible part of the plant, and are produced in very great abundance in warm countries, where, as an article of food, they occupy, to a certain extent, the same place which the Potato does with us.

CULTURE.—As the Sweet Potato requires a rather long time to complete its growth, it is difficult to cultivate it in the climate of Paris without the aid of artificial heat; and as, moreover, the tubers keep badly in northern countries, gardeners are in the habit of starting some plants in the middle or end of winter, either in a plant-house or in a hot-bed. As soon as the shoots are strong enough, they are detached from the tubers and planted separately in pots, in which they remain until they are planted out. This is done from March to the end of May, according as it is desired to forward the growth of the plants. Those planted out in March and April should have the protection of a frame. In May this is not required, and the plants may then be simply put out on beds of dry leaves covered with from 4 to 6 in. of light soil or compost. Copious waterings are necessary as soon as the hot weather commences, and the stems quickly cover the whole bed, and even extend beyond it. In the South only, the Sweet Potato may be planted in the open air on sloping beds of rich mellow soil, and watered by means of trenches cut between the beds, which should be at least 6½ ft. apart. The tubers are well grown in four or five months, and are taken up as late as possible in the climate of Paris, but care must be taken to lift the crop as soon as the stems and leaves have been touched by frost, as, the soil being no longer covered by the foliage, the frost would easily reach the tubers, which very often grow level with the surface of the ground, and are very sensitive to cold. The tubers are very difficult to keep, cold and damp being equally injurious to them; they should, therefore, be kept in a very dry place, the temperature of which should be as uniform as possible, and never fall below 5 or 6° C. (40° or 42° Fahr.). It is sometimes a good plan to store them in boxes, which are then filled up with dry sand, peat, or sawdust. The tubers should not be allowed to touch one another, and the boxes should be examined from time to time, and any tubers which have commenced to decay should be removed. Like the ordinary Potato, the Sweet Potato may be propagated from seed, but varieties are not reproduced true in this way, and it is only employed for the purpose of raising new varieties. However, the plant never seeds in the climate of Paris, and it is useless to attempt the culture of it in England.
USES.—The tubers are prepared in various ways and eaten like those of the ordinary Potato. The flesh is sweet, very tender, and, in most varieties, has a perfume somewhat like the scent of violets. As in the case of the common Potato, there is a vast difference in the flavour of well-grown “mealy” and that of waxy roots.

Of Sweet Potatoes, an almost infinite number of varieties are cultivated. We shall only mention the earliest kinds, and those which succeed best in France.

**Patate Ignane.**—Tubers very large, oval or oblong, blunt at the ends, and often channelled or furrowed; skin grayish white; flesh white, not very fine in texture, rather floury, and moderately sweet. This is one of the most productive kinds, the tubers sometimes weighing nearly nine pounds each.

**Patate Jaune.**—A somewhat late variety, but of excellent quality. Tubers long, slender, very thin, about 16 in. long and 2 in. in diameter; skin yellow, smooth; flesh of a handsome yellow colour, very fine flavoured and sweet.

**Patate Rose de Malaga.**—Tubers oblong, somewhat variable in shape, often marked with longitudinal furrows, and thicker at one end than at the other; skin of a somewhat grayish pink colour; flesh yellow, very fine in texture, and moderately sweet. This is one of the earliest and most productive varieties.

Red Sweet Potato.—This is the sweetest, most highly perfumed, and least floury of all varieties. Tubers very long and slender, about 20 in. in length, by 2 in. or less in the diameter of the thickest part, but much thinner at both ends. They are almost
always sinuated or undulated. Skin smooth, red slightly tinged with violet; flesh white in the interior, and light pink under the skin. This is the variety which is most generally grown by gardeners in the vicinity of Paris.

Many other varieties of Sweet Potato are cultivated in Algeria and other French colonies, and even in the United States, where this vegetable forms an important article of commerce.

PURSLANE

*Portulaca oleracea, L.* *Portulacaceae.*


Native of India.—Annual.—The Purslane, which appears to be undoubtedly of East Indian origin, has been naturalised amongst us to the extent of having become a weed. It has a thick fleshy stem, which sprawls on the ground when the plant grows alone, but is unbranched and erect in plants grown closely together. Leaves thick, shortly spatulate; flowers very small, yellow, growing from the axils of the leaves, and succeeded by rounded, slightly compressed seed-vessels filled with very small, shining, black seeds. Their germinating power lasts for seven years at least.

CULTURE.—The seed is sown, either in drills or broad-cast, in light soil, from May to August, and the leaves and stems may begin to be gathered for use in about two months after sowing. The same plants will yield two or three gatherings, provided they are watered frequently. Sowings are often made in frames or on hot-beds, in order to obtain a winter or spring supply. In this case the seed is sown from December to March on hot-beds, as the plant requires a pretty high temperature to grow vigorously, and leaves may be gathered in two months or two months and a half after sowing.

USES.—The leaves are eaten cooked, or raw as salad.
Green Purslane.—This is the wild plant developed and increased in size by continuous cultivation of selected large-leaved specimens. Even in the wild state some Purslane-plants are met with which have a more marked tendency than others to grow with the stems erect instead of sprawling on the ground, and this form it has naturally been sought to reproduce and improve by cultivation, as being more productive on an equal area, and more easy to gather than plants of spreading habit.

Golden Purslane.—This variety is easily distinguished from the preceding one by the light, almost yellow, tint of its leaves. It is grown and used in exactly the same manner. Its peculiar tint appears to be less owing to a weaker colouring of the parenchyma of the leaf than to a greater thickness of the epidermis, which is of a yellow hue. When cooked, the leaves do not differ very much in colour from those of the Green Purslane.

Large-leaved Golden Purslane.—This variety is very distinct on account of the size of the leaves, which are at least double as large as those of the two preceding kinds, and grow closer together on the stem. The plant does not grow quite so rapidly as either of the two other kinds, but it is quite as productive, being more thick set and compact in habit.

WINTER PURSLANE

Claytonia perfoliata, Don. Portulacaceae.


Native of Cuba.—Annual.—Leaves all radical, very tender, thick, and fleshy, the earliest ones very narrow and lanceolate, the following ones more or less broad, but always pointed; stems numerous, somewhat taller than the leaves, and bearing at the end
a sort of broadly funnel-shaped collarette of the same texture as the leaves, from the centre of which issue short panicles of small white flowers; seeds small, black, slightly flattened, and lentil-shaped. Their germinating power lasts for five years. The seed is sown, where the plants are to stand, all through spring and summer. The leaves are eaten as salad, or cooked like ordinary Purslane or Spinach.

RADISHES

*Raphanus sativus*, L. *Cruciferae.*


Native of South Asia (?).—Annual.—The type or original plant from which the cultivated forms of Radishes have been derived is not known with certainty. The question has given rise to many inquiries and discussions, and probably will give rise to many more, as the highest and most competent authorities on the subject hesitate to decide the point. Up to the present, no wild plant has been found with characteristics which would allow of its being regarded unmistakably as the progenitor of cultivated Radishes. The opinion that these have sprung from *Raphanus Raphanistrum* (the Wild Radish of our fields) may be maintained, but there are very important indications which appear to us to be opposed to it. Besides the differences in the colour of the flowers (which, in the Wild Radish, are often yellow, but never so in the cultivated
RADISHES

varieties), and in the formation of the siliques or seed-vessels (which are jointed in the Wild Radish, and not so in the others), it must be observed that the cultivated plants are much more sensitive to cold than our native Wild Radish, a fact which would appear to point to a more southern clime as the native habitat of the first parents of these plants. Moreover, the stems of the cultivated plants grow erect, and not in an inclined or almost prostrate position, as is frequently the case with the Wild Radish. There are two Asiatic forms of Radish which have unjointed, fleshy, edible seed-vessels, viz. the Madras Radish (*Radis de Madras*) and the Mougri, or Snake Radish, of Java (*Mougri de Java* ou *Radis Serpent*), and it is towards the countries in which these forms, resembling the cultivated Radish in the structure of the seed-vessel and in all their characteristics of growth, are found, that we think we should look for the original plant which was their common ancestor.

The cultivated Radish is looked upon as an annual, because the growth of the flower-stems is not preceded by any period of repose in the growth of the plant; the large late varieties, however, should rather be considered biennial. The leaves are oblong in shape, the flower-stems are branched, and the flowers are white or lilac, but never yellow. The seed is reddish, round or slightly elongated, and usually somewhat flattened at the sides. Its germinating power lasts for five years.

The French are such excellent Radish growers that those who care to be informed as to the best way of growing these roots can hardly do better than read the cultural notes given under the three divisions. For various reasons, however, it may be well to give here the culture usually pursued in our own country, both in private and market gardens. A small and constant supply of crisp, delicately flavoured bulbs should be the only aim. The earliest will be had from a hot-bed or from under some glass protection. It is seldom we grow a special frame of Radishes, but secure all we want from frames planted with other crops. In January and February we are frequently making up beds of manure and leaves for forcing Potatoes, Carrots, etc., and amongst these are sown a few Radishes. When the Potatoes, for example, are planted in rows 15 in. apart, a row of Radishes may be sown between, and they will be ready for use and cleared off before the Potato crop in any way interferes with them. In Carrot-frames the same thing may be done, and sometimes a Radish-seed is dropped in here and there amongst the Carrots, as they will push up and be cleared off before the Carrots require much top room. Thus young spring Radishes are obtained without any special attention; many, however, who try to grow early Radishes in this way make mistakes. One of these is sowing the seed too thickly, so that when the plants come up they are as a mat at top and bottom, and when this is the case useful roots are never formed. Thinning out some of the plants as soon as they can be handled is one way of
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avoiding this, but it is a wasteful way; the better plan is always to sow thinly. One seed every few inches will give a much finer crop and better results altogether than close sowing. Many doubtless wonder why their Radishes do not all bulb, but allowing them to grow too close together is, as a rule, the cause of this. Many are most particular, too, in getting their seeds in and the crop brought to maturity, but after the usable part of it has been gathered neglect follows, and where Radishes have been raised in a Potato or Carrot frame it is no uncommon thing to see worthless Radish tops overshadowing everything by the time the other crops should have been at their best. Cultivators should always be particular in clearing away all Radishes as soon as they become too old for use, and any which do not bulb early may be thrown away altogether.

Special Beds.—In making up a special bed for early Radishes, a very shallow bed of fermenting material is sufficient; about 1 ft. in depth is enough, and 6 in. of soil should be put on the top of this. They bulb fastest early in the year in a moderately rich sandy mixture. The seed should be sown broadcast, very thin, and it should not be covered more than \( \frac{1}{2} \) in. deep. The earliest seed may be sown in frames in January and February, but in the latter month and throughout March seed may also be sown along the base of a south wall or in any sheltered sunny spot. Here the rule as to thin sowing should also be observed; in fact, this must be kept in mind throughout. When the little plants appear at first in the colder months of spring a slight protection will favour their free growth. A few branches or some similar covering is all that is needed.

Summer Radishes.—From April onwards throughout the summer select spots need not be chosen for Radishes, as they will do almost anywhere, their only requirements being a firm, rich, cool soil. Without this, especially in summer, the roots will become hot and stringy before they are well developed, and the period of their use will be very short. In general culture some may prefer having the seed in rows; others may sow broadcast, and good Radishes may be had in both ways. At no time should the seed be put more than \( \frac{1}{2} \) in. below the surface; the soil should always be trodden firmly over it, as this induces the plants to bulb quicker and better than when in loose material.

Winter Radishes.—Our rule is to sow a small quantity of seed every three weeks from the middle of January until the beginning of September, when we stop all sowings and dealings with the summer varieties, and devote one good large piece of ground to the Chinese Scarlet for winter. This sowing is made on a south border which may have been previously cleared of Potatoes or some other crop. The seed is put in in rows 15 in. apart, in order that plenty of air and light may be admitted to them in winter, and if the young plants come up too close they are thinned out to 6 in. apart. Under this treatment a uniform crop of useful bulbs is the result. We generally gather some of these by the end of October, when they are no larger than filberts. To have Radishes in the best possible condition, they must be grown quickly; and to do this in dry soils, frequent waterings during dry weather must be given them, otherwise by the time the roots are of a usable size they will generally
be stringy and ill-flavoured. Small sowings in quick succession are, therefore, preferable to large ones made at long intervals apart.

Cultivation for Market.—In the London market-gardens, the first two crops of Radishes of the year are generally grown amongst fruit-trees, if bush fruits or Roses do not occupy the ground. By sowing time, which is in November and December, the trees are leafless and pruned; therefore they do not offer much shade to the young Radish-plants, but rather protect them from cold winds and severe frosts, and before the trees have made much growth in spring the Radishes are fit for market, and the ground when cleared of them is available for being planted with Lettuces or other plants that are best suited for a shady situation. Crops of Radishes to succeed those under fruit-trees are sown in open quarters, in 6-ft. wide beds with alleys between them. After sowing, the seed is raked in with wooden rakes, and afterwards slightly covered with fine soil taken from the alleys. The surface of the bed is then rolled and, in the case of early sowings, slightly covered with long litter, which after the seeds have germinated is removed on every favourable opportunity, but immediately replaced on the appearance of frosty, snowy, or stormy weather. After the second week in February coverings are dispensed with if the weather is at all likely to continue mild for a time, as the plants have by this time become strong and better able to stand the cold. The litter is, however, kept in the alleys in case of emergency until all danger from frost is over, when it is removed entirely and converted into manure. Successional sowings are made in February, March, and April, in a manner similar to that just described, and in some cases during the summer. But, except in moist situations, Radishes do not succeed well in hot weather; therefore, where such situations do not exist, sowing ceases in spring, and recommences in August and September, if the weather be at all showery. A good crop of Radishes during the summer is profitable, and especially so in dry seasons. The ground chosen for them is usually that recently cleared of Celery, French Beans, Rhubarb, or Vegetable Marrows, which, after being deeply dug and heavily manured, is levelled and otherwise prepared to receive the seed. Sometimes Radishes are sown between Asparagus ridges, and in such positions they succeed remarkably well on account of the soil being deep and rich. When Radishes are required earlier in the spring than they can be gathered from the December outdoor sowing, they are obtained from frames placed on hot-beds, or trenches are dug out and filled with manure, on which a little soil is placed, and after sowing, the beds are covered over with litter. In March the first outdoor crops are usually ready for market. Birds are the worst enemies with which the Radish grower has to contend, and when large quantities are grown it is found necessary to employ boys to scare them away, otherwise they would devour all the seed, and even pull up the young plants in order to obtain the husks which adhere to the young leaves.

Uses.—The roots are eaten raw.

The varieties of Radishes are very numerous, and we shall divide them, according to their period of culture, into Small or
Forcing, Summer or Autumn, and Winter Radishes, the mode of culture which is suitable for each of these divisions being very different from that which should be employed for the others.

I. Small, or Forcing, Radishes

These Radishes are sown in the open air from February to November, usually broadcast in beds, and the seedlings are thinned out so as to allow the plants to grow evenly. The beds should be kept free from weeds, and frequently watered in hot dry weather. In about from sixteen to eighteen days, if the weather is favourable, and from twenty to twenty-five days if otherwise, the earliest plants will be fit for use. As for the rest, it may be four, five, or six weeks, according to the weather, before they are fit to be pulled. In spring, or late in autumn, the seed should be sown in a warm sheltered position; in summer a cool shady place is preferable. Sowings should be made in succession every fortnight or ten days, in order to keep up a supply of young tender Radishes. In December, January, and February, the seed is sown on hot-beds under frames or bell-glasses. The market-gardeners of Paris grow Radishes in the depth of winter on hot-beds covered with leaf-mould or compost, without any protection except that of straw mats, which are placed over them at night and in frosty weather, and are taken off whenever the weather is not too severe. These Radishes are usually fit to be pulled in from five to six weeks after sowing.

A. Round, or Turnip-rooted, Radishes

**Scarlet Turnip Radish.**—Root nearly spherical, slightly top-shaped when very young; skin somewhat vinous red; flesh white, slightly tinged with pink; leaves rounded, cut at the edges, and of a somewhat glaucous green colour; leaf-stalks faintly bronzed. In fine weather, as in May, this Radish is fit for use in about twenty-five days after sowing. It is hardy, does not become hollow at the centre too quickly, and grows well in ordinary garden soil.

**Early Scarlet Turnip Radish.**—Root more flattened than that of the preceding kind, well rounded underneath, having only a very slender, small tap-root, and resembling the ordinary Scarlet Turnip Radish in the colour of the skin; flesh very white; leaves short and close growing. This variety is fit for use in about twenty days after sowing, and can be grown in
ordinary garden soil, but compost or leaf-mould suits it much better. It becomes hollow at the centre sooner than the preceding kind.

Forcing Scarlet Turnip Radish.—Root small, very regular, becoming quickly spherical, of a beautiful carmine-red, and leaves light and short. The root is formed and ready to pull before the fourth leaf (besides the cotyledons) has attained its full development—i.e. in sixteen or eighteen days. It requires to be grown in pure decayed spent manure (terreau).

Early Scarlet White-tipped Turnip Radish.
—A handsome and exceedingly early variety. Root round. It is the only garden Radish that is really pink in colour, the two preceding kinds being more of a carmine-red; but in this variety the upper part of the root is a true bright pink, which makes a pleasing contrast with the white of the lower part. The root of this Radish swells more speedily than that of any other variety, but it also quickly becomes hollow at the centre, and should be pulled for use as soon as it is fully grown. It grows really well only in compost or leaf-mould, and is sometimes fit for use in from sixteen to eighteen days after sowing. The market-gardeners about Paris grow it in preference to all other kinds for an early crop.

Forcing Scarlet White-tipped Turnip Radish.—Still earlier than the preceding one, it differs from it mostly by its leaves, which are extremely short and light. It is admirably suited for
raising an early crop, and succeeds much better on spent manure than in garden soil.

**Early Scarlet Globe Radish.**—Introduced from America a good many years ago, it forms rapidly small uniformly bright red roots. The leaves are small, like those of the other forcing Radishes, and the root, although not so long as in the olive-shaped sorts, is not as round as in the turnip varieties, and would be as correctly described as oval as globe.

**Blood-red Turnip Radish.**—A hardy Radish with globe-shaped roots of peculiar brown-red colour, and white, firm flesh; it requires less care, when grown in the open ground, than the other early sorts, and keeps longer without becoming pithy. In ordinary conditions it is fit for use twenty-eight to thirty days after sowing.

**Early Deep Scarlet Turnip Radish.**—A very handsome variety. Root very round, or slightly flattened, and of an exceedingly bright colour; flesh white, firm, crisp, and very pleasant to the taste; leaves of a somewhat lighter green than those of the pink-skinned Radishes. This variety is often fit for use in about twenty days after sowing. It grows well in ordinary garden soil, and still better in compost or leaf-mould.

**Forcing Deep Scarlet Turnip Radish.**—A handsome small variety, remarkable for its bright colour and for its small leaves. An early forcing Radish, it is fit for the market within fifteen to twenty days from sowing time, according to circumstances.

**Forcing Deep Scarlet White-tipped Turnip Radish.**—This variety is very like other small Radishes for forcing in the smallness of its leaves and the rapidity with which the root is formed. It is one of the most grown sorts for early crops.

**Forcing Bright Red Leafless Radish.**—Root ovoid, bright carmine, of excellent quality. A very early variety, and well adapted
for forcing; remarkable also for its scant foliage, often confined to the two cotyledons and two additional small, short, and rough leaves. This, with its great earliness, makes it apt for growing under glass. It seldom seeds.

**Triumph Radish.**—In general characteristics it belongs to the forcing turnip-rooted Radishes; it has their globe-shaped root, small leaves, and their earliness. Its peculiarity consists in the scarlet streaks with which the white root is covered. On some roots either the red or the white colour predominates, but as a rule the stripes are distinct, and contrast agreeably with the uniform colouring of the other early Radishes.

**White Turnip Radish.**—A handsome variety. Root nearly round, flattened only when it attains a very large size; leaves pretty large, erect, and light green. Although it is only two or three days later than the Early White Turnip Radish, this kind is more suitable for open-air culture than for forcing. The flesh is white, firm, and agreeably pungent.

**Small Early White Turnip Radish.**—Root rounded, usually flattened above and underneath, often twice as broad as deep; leaves short, rather spreading, very much cut or divided, somewhat gray, and tinged with brown on the veins and in the middle. In this variety the roots do not swell very quickly, as they take at least from twenty to
twenty-five days from the time of sowing before they are fit to be pulled for use. It is, however, employed for forcing, especially in northern countries. Even when quite small, this Radish is remarkably pungent, and its flavour is sometimes so strong as to be hardly endurable.

**Early Purple Turnip Radish.**—Root slightly top-shaped, of a fine clear violet colour; flesh white, almost transparent; leaves rather large, cut, or divided, erect, and light green. The roots of this variety take about a month to swell, but they remain a long time without becoming hollow at the centre. It is a true "all-the-year-round" Radish.

**White-tipped Purple Turnip Radish.**—A handsome, small kind, with an almost spherical root, dark violet-colour around the neck, becoming paler towards the lower extremity, which is white. Leaf-stalks and veins of the leaves violet-coloured or brown; leaves rather scant. Like the Early White-tipped Scarlet Radish, this variety should be sown at intervals of about a fortnight, as it soon becomes hollow.

**Very Early Yellow Turnip Radish.**—Great numbers of yellow Radishes have during the past few years been recommended as sufficiently early to rank among the forcing Radishes, and none deserves better than this to be classed among such Radishes. The root is formed in summer within about twenty-five days; it is perfectly round, well shaped, and of a fine ochre-yellow. The leaves are short and few in comparison with the size of the root.

**B. INTERMEDIATE, OR OLIVE-SHAPED, VARIETIES**

**Olive-shaped Scarlet Radish.**—Root ovoid, slightly elongated, usually olive-shaped, sometimes almost cylindrical for a good part of its length, and rounded at both ends. In colour a very deep carmine; flesh white, firm, and crisp; leaves rounded, light green, rather broad,
and not quite so large as those of the Scarlet Turnip Radish. This is one of the kinds which are most extensively grown in kitchen-gardens and for market supply. It grows well in the open ground, and remains some time without becoming hollow. The market-gardeners of Paris often try to raise it with the roots long and slender, rather than ovoid in shape, and they succeed in doing so by covering the beds with compost or leaf-mould as soon as the young plants are pretty well up.

**French Breakfast Radish.**—Under this name two distinct varieties are grown, differing from each other not only in colour, but also in productiveness, etc. The *Parisian strain* is a very handsome variety, of the same shape as the preceding, or not quite so long; skin a florid and rather lively pink on the upper part—four-fifths—of the root, and white on the lower part. Like the White-tipped Scarlet Turnip Radish, this variety is exceedingly early; but the root very soon becomes hollow if it is not pulled as soon as it is fully formed. It grows much better in a hot-bed, or in compost or leaf-mould, than in ordinary garden soil.

The kind known as the *Southern strain* is rather thicker and longer in the root than the Parisian, and the pink colour is not quite so bright, and one-fourth of the root is white. The greater size of the white blotch of this variety distinguishes it sufficiently, and it has the advantage of being well suited for sowings during summer in the open ground, whereas the Parisian sort is a market-garden Radish.

**Forcing Olive-shaped Scarlet White-tipped Radish.**—Root twice or thrice as long as thick, almost cylindrical, of a bright rose colour, ending in a fine tap-root which is white, as is also the end of the root. The leaves are not different from those of other forcing Radishes. It is one of the earliest, being; under average conditions, fit for pulling from fifteen to eighteen days after sowing.

**Deep Scarlet Intermediate Radish.**—This variety is as distinct in the colour of the skin as it is in the shape of the root, which is longer, and terminates in a longer and finer point than that of any other Intermediate variety. Leaves light green in colour, rather
large, and erect; flesh very white, firm, crisp, very juicy, strong, and pungent. This is a fairly hardy kind, and very suitable for growing in the open air. The roots take about twenty-five days to swell, and do not become hollow too soon.

**Early Deep Scarlet Olive-shaped Radish.**—This is one of the handsomest and best of all the Small or Forcing Radishes. The root is regularly olive-shaped, very symmetrical, and very smooth; flesh white and firm; leaves short, stiff, and few for the size of the root. The plant grows well in the open air. The roots take about twenty to twenty-two days to swell. Its earliness and scanty foliage render it equally suitable for forcing. This variety is easily distinguished from the preceding one, by the roots being shorter and terminating more abruptly at the base, instead of gradually diminishing to a point. The flesh is tender, mild, cool, and hardly pungent.

**Forcing Olive-shaped Deep Scarlet Short-leaf Radish.**—A handsome very early kind, rooting as early as any of the turnip-shaped sorts. Olive-shaped root, tapering at the end, and showing a tendency to grow into a top shape. Leaves very small, erect, with stalk and veins tinged with copper colour. The root is generally sufficiently formed as soon as three leaves have developed, besides the cotyledons.

**Olive-shaped Deep Scarlet White-tipped Radish.**—An offspring of the French Breakfast Radish, selected by the Parisian market-gardeners until it is hardly possible to recognise its origin. It is now almost cylindrical in shape, and deep crimson, almost blood-red, in colour. Thus quite a distinct strain has been established, which, like the French Breakfast Radish, has also produced a forcing sub-variety, hereafter described.

**Forcing Olive-shaped Deep Scarlet White-tipped Radish.**—One of the quickest to crop; it is, on average conditions, fit to be pulled fifteen to eighteen days after sowing. Its colour is a very bright scarlet-red, contrasting vividly with the white blotch at the
SMALL, OR FORCING, RADISHES

extreme end of the root. It comes quite true from seed, has very scanty foliage, and is admirably suited for forcing.

Purple Olive-shaped Radish.—Root ovoid, almost pear-shaped, the thickest part being near the base. The upper half is of a black-violet colour, which gradually becomes paler until it passes into pure white at the extremity. The leaves are scanty, rather cut at the edges, and tinged with violet-brown on the stalks, veins, and sometimes on the blade of the leaf itself, giving the foliage a rather pleasing appearance. The flesh is white, hard, and strong flavoured. The roots take about a month to swell. This variety is especially suitable for open-air culture, but is also well adapted for forcing.

White Olive-shaped Radish.—When this variety is grown true to name, the root is very handsome, very regularly olive-shaped, and of a very fresh pure white colour; flesh very white and crisp, and not too pungent; leaves medium-sized, rather erect, and light green. This Radish may be grown equally well in a hot-bed and in the open air. The roots take about twenty-five days to swell. The colour forms a pleasing contrast to that of the other Intermediate varieties. It is not long since the variety was firmly established in the olive-shape represented in the accompanying illustration. Formerly it had the defect of being long in the lower part, almost like a Long Radish—a defect which, even yet, it sometimes has when the seed is not very pure.

Forcing White Olive-shaped Radish.—Root long, olive-shaped, thick from the top to about two-thirds of its length, then tapering abruptly and terminating in a thin tap-root. Ready for pulling in from fifteen to eighteen days. It is a perfectly white Radish, but, pulled a little late, the neck takes a greenish tinge. The leaves are rather larger than those of the other Forcing Radishes.

C. LONG RADISHES

Long Scarlet, or Salmon-coloured, Radish.—Root extremely long and slender, often 5 or 6 in. in length and only about ½ in. in diameter, the upper part long, cone-shaped, narrowed towards the base of the leaves; skin smooth, and a vinous red colour; flesh almost transparent, and slightly tinged with pink or lilac. This
peculiar appearance of the flesh easily distinguishes the variety from all others which resemble it. This Radish is most usually grown in the open air in well-dug and well-manured soil. It is very seldom used for forcing, on account of the great length of the root, which would require too deep a layer of compost or leaf-mould. The roots take about a month to become fully formed. The flesh is tender, crisp, and fresh, but has not the pungent flavour of the Turnip Radishes or the Intermediate varieties.

Long Scarlet, or Salmon-coloured, Radish (½ natural size).

Wood's Early Frame Radish.—This variety comes between the Long and the Intermediate kinds. The roots, which are of a very long ovoid shape, are usually from 2½ to 2¾ in. long, and about ⅜ in. broad in the thickest part, which is not far below the base of the leaf-stalks. The skin is a very lively carmine, becoming paler towards the lower end of the root. The flesh is very white, firm, juicy, very crisp, fresh, pleasant to the taste, and slightly pungent, like that of the Scarlet Intermediate Radish. The leaves are broad, rather short, compact, and rounded in shape, the stalks and veins tinged with coppery red. This Radish, which may also be very well grown in the open air, is almost always grown in
frames, especially in England. A layer of compost or leaf-mould 4 in. deep over the hot-bed is deep enough to grow it in. Of all the early Radishes it yields the heaviest crop in the same space of time. The roots take from twenty to twenty-two days to become fully formed.

**Long Chartier Radish.**—A handsome variety, with long straight roots, regularly tapering, of a bright rose colour on the upper part, the lower portion much paler or even white. Culture and uses exactly the same as those of the Wood's Early Frame Radish.

**Brightest Scarlet, or Cardinal, White-tipped Radish.**—Quite distinct, characterised by the very bright colour of its root, which is very nearly the colour of the Deep Scarlet Turnip-shaped and Intermediate Radishes. A very handsome summer Radish, fit for use about twenty-five days after sowing; suitable for the open ground and for being grown on spent manure. Flesh white, solid, and crisp.

**Long Purple Radish.** — Root very long and slender, resembling that of the Long Scarlet Radish, with a long conical top, of an almost black-violet colour, becoming paler on the buried part; flesh almost transparent, lilac; leaves erect, rather long and broad, with brown stalks and veins. This variety is only grown in the open air. The roots take about a month to swell.
Long White Pearl Forcing Radish.—This variety comes very near the Long White Vienna Radish, described later, but is still earlier, and also rather shorter, with a thinner neck, and there is no green on the root. The root is a uniform milky white colour, almost transparent. The flesh is crisp, tender, and delicately pungent. It is a quick grower, doing best in mellow, rich, well-watered soil, with the aid of artificial heat during winter.

Long White Vienna Radish.—Root white, very smooth and clean skinned, straight, spindle-shaped, from 4 to nearly 5 in. long, and from \( \frac{3}{4} \) to 1 in. broad at the top; neck short, rounded, tinged with green, and very narrow at the insertion of leaf-stalks; leaves rather large, broad, and light green. This is an early variety. The roots take four or five weeks to become fully formed; the flesh is very tender, crisp, and juicy. Amongst the Japanese varieties of Radishes, of which we shall have occasion to speak at the end of this article, there is one which, in its appearance, bears some resemblance to the present variety. It has long slender roots, which at first are quite under the surface of the soil, but afterwards the top of the root rises a little overground and becomes tinged with green at the neck. The flesh of this variety is very white, rather strong in flavour, and of very good quality.

Long White Naples Radish (Synonyms: White Transparent, or White Italian, Radish).—Root long and slender, pure white, resembling the Long Scarlet Radish in shape, but rather thicker; the upper part is conically tapered and tinged with pale green. This variety is almost always grown in the open air. The roots take about a month to become fully formed. A sub-variety of it is sometimes met with, in which the neck of the root is tinged with violet, but in every other respect it is exactly the same as the common variety.

Long Normandy, or Marsh, Radish.—A very distinct long root, remarkable for its habit of protruding from the ground and becoming twisted like the Ox-horn Beet-root. The part of the root which remains underground is white, and the portion which is exposed to the light becomes violet. This Radish is usually sown in the open air, and the roots are pulled for use when they
are about \( \frac{1}{4} \) in. in diameter and 4 in. in length; they are then very tender. They attain this size and condition in less than a month from the time of sowing, after which they rapidly increase in size, and become twisted and hollow at the centre.

**White Crooked, or Mans Corkscrew, Radish.**—An exceedingly distinct variety. Root very long, cylindrical in the upper part, over 1 in. in diameter, and frequently more than 1 ft. in length. About one-fourth or one-fifth of the root shows above-ground, and this part is a dull white, more or less tinged with pale green. The underground portion is pure white, seldom straight, but most usually twisted like a corkscrew, in consequence of which the root can rarely be pulled up without breaking and leaving a part in the ground. The flesh is white, not very compact, and pungent. The leaves are very broad, and the neck of the root often badly formed. The roots of this Radish should be pulled about six weeks after sowing, as, if left in the ground longer, they become only fit for feeding cattle.

The **Ardèche Field Radish**, which is grown in the south of France more for feeding cattle than for table use, has some resemblance to the present variety. Like it, it is a very long-rooted and rather late Radish, and yields a heavier crop of leaves than of roots. It is therefore unsuited for garden culture, and the same may be said in regard to the improved form of this Field Radish, the roots of which are rather larger than those of the original variety.

**II. Summer and Autumn Radishes**

Radis d'été ou d'automne.

Under this name are grouped certain varieties, the roots of which are larger than those of the preceding section, and longer to
form, but grow nevertheless pretty rapidly, so that, by making successional sowings, a continuous supply of fresh tender Radishes may be kept up all through the summer and autumn. These varieties do not usually keep long. They are sown in drills, from 16 to 20 in. apart, and the seedlings are thinned out to a distance of from 6 to 8 in. from one another, according to the size of the variety sown. They require no attention except occasional waterings. The roots of most of the varieties are fully formed in from six weeks to two months from the time of sowing. Sowings may be made from March until August.

**Large White Summer Turnip Radish.**—Root rounded or top-shaped, 2 in. or more in diameter and length when well grown; skin white; flesh white, rather tender, and slightly pungent; leaves rather long, broad, half-erect, much more abundant and larger than those of the Small or Forcing Radishes, especially exceeding them in the size of the midribs or stalks, which form a rather broad neck at their junction with the root. The roots of this variety form pretty soon, and are generally fit for use in from thirty-five to forty days after sowing. In the United States they grow under the name of the Early White Box Radish, or Philadelphia White Box Radish, a Radish very similar to it, but smaller, and possibly a link between the White Turnip-rooted Radish and the one just described above.

**Stuttgart Early Giant White Turnip Radish.**—A larger variety and somewhat more flattened in shape than the preceding one. It is regularly top-shaped, and often 3 or 4 in. in diameter, and over 3 in. in depth.
Skin and flesh white; leaves somewhat broader and stiffer than those of the preceding variety, but not so erect. The roots may be pulled for use about six weeks after sowing, although they will continue to increase in size for some time longer without deteriorating in quality. When they have attained their full size, they are too large to be served up entire, and are cut into slices like the winter Radishes.

**Yellow Summer Turnip Radish.** — Root almost spherical or top-shaped, sometimes longer than broad, fit for use when about 1½ in. in diameter, but often hollow when it exceeds that size; skin dark or grayish yellow, veined lengthways with small white lines produced by fine longitudinal cracks; flesh white, compact, and very pungent; leaves broad and long. This Radish grows rather rapidly, the roots being fit for use in about five weeks after sowing. With the exception of the Black Spanish Radish, no other variety, perhaps, has so strong a flavour. The flavour of the flesh is not, however, always invariable in any variety of Radish, and the conditions of soil and climate have a very great influence in increasing or diminishing its pungency.

**Golden-yellow Summer Turnip Radish.** —An earlier variety, better shaped than the preceding. Is usually classed among the forcing or monthly varieties, but though early it is seldom fit for use within a month, and it is undoubtedly a summer Radish. The root is a fine yellow, spherical or slightly top-shaped, with few and small-sized leaves.

**Early Golden-yellow Oval Summer Radish.**—A quick-growing kind, distinguished for being a fine yellow colour, and usually oval-shaped. In quality the same as the last described sorts.

**Gray Summer Turnip Radish.**—Root almost spherical or top-shaped. Except in colour it is very like the Yellow Summer Turnip Radish, being of the same size, equally early, and having the skin cracked in the same way.
Small Black Summer Turnip Radish.—A variety which comes pretty near the preceding one, but more deeply coloured, and from eight to ten days later. The skin is black, cracked and furrowed with white lines. The flesh is very white and firm, and pungent.

White Strasburg, or White Hospital, Summer Radish.—An early and, at the same time, very productive variety. Root pointed, from 4 to nearly 5 in. long, and 2 in. or less in diameter; skin white; flesh white, rather tender, and not too pungent; leaves large, broad, half-erect, deeply lobed, and of a light green. The roots may be pulled about six weeks after sowing, at which time they are two-thirds of their full size. They will continue to increase in size for a month or more without spoiling.

Black Long Summer Radish.—Evidently derived from the Black Long Winter Radish, and therefore properly a winter Radish; but we class it among the summer kinds not only because of its being readily grown in summer, but also because it forms a link between the two groups. Its root is smoother, more cylindrical
SUMMER AND AUTUMN RADISHES

and less pointed than that of the Long Black Spanish Radish, its leaves fewer, and its flavour milder and less pungent. It is a favourite of the Paris market-gardeners, because it enables them to bring out black Radishes in July, when formerly there were none before October, plants from early sowings being liable to run to seed. Lovers of pungent Radishes will prefer the old Black Spanish Radish for autumn and winter use.

III. Winter Radishes


The name of Winter Radishes is applied to those kinds which have such compact and firm-fleshed roots that they will keep through a great part of the winter without sprouting or becoming hollow. They are usually large and take several months in attaining their full growth. The seed is sown in May or June (that of some varieties up to the beginning of August), usually in drills from 16 to 20 in. apart. The roots are pulled in November, and will keep to a more or less advanced part of the winter, simply stored in a dry cellar or a vegetable house.

Black Spanish Winter Turnip Radish.

Large Purple Winter Radish.

Black Spanish Winter Turnip Radish.

Large Purple Winter Radish.

This is not a very late kind for a Winter Radish: the seed may be
sown up to the end of July. The roots keep well, and are the strongest in flavour of all varieties of Turnip Radish.

Large Purple Winter Radish.—Under the name of Large Purple Winter Radish, a sub-variety of the Black Spanish Winter Turnip Radish is grown. It is much the same in shape, size, and earliness, but is distinguished for its purple skin.

Long Black Spanish Winter Radish

Long Black Spanish Winter Radish. — Root cylindrical, very regular, from about 7 to 10 in. long, and between 2 and 3 in. in diameter; skin very black, and somewhat wrinkled; flesh white, firm, and compact; leaves stout, broad, and long. Two forms of this variety are in cultivation—one with the root rounded and shortened off at the lower extremity; the other with the root tapering to a long point. The second is somewhat later, and the flesh is very pungent. The first is much more clean skinned, and often quite mild in flavour.
The Laon Long Gray Winter Radish and the Gournay Large Purple White Radish are very closely related to the Long Black Spanish Winter Radish, which they resemble in the size and shape, being only a little thicker; they differ from it in their colour, the Laon variety being iron gray, and the Gournay purple. Both are grown and used in the same way as the Black Spanish Winter Radish.

**Large White Spanish Winter Radish.**—Root spindle-shaped, nearly cylindrical in the upper two-thirds of its length, and narrowed to a point in the lower part, 6 or 7 in. long, and nearly 3 in. in diameter; neck rounded; skin white; flesh white, compact, and very strong in flavour; leaves very broad. This is a good Winter Radish, and keeps well. It grows so quickly, however, that it may be cultivated as a Summer or Autumn Radish, the seed being sown in June.

**Large White Russian Winter Radish.**—Root long, ovoid in shape, often from 12 to 14 in. long, and 5 or 6 in. in diameter; skin rather wrinkled, and grayish white; flesh white, not very
compact, and rather strong in flavour; leaves numerous, rather broad, very much divided, and forming very dense rosettes spreading on the ground. This is a very productive Radish, but for table use the roots should be pulled before they are fully grown. In order to keep them well in winter, the seed should be sown in the end of June or in July. If sown earlier, the roots often become hollow, and are then only fit for feeding cattle, for which purpose the large Winter Radishes, and especially the present variety, might be more largely used than they are. In the same space of time they produce in leaves and roots a greater quantity of cattle-feeding material than Turnips, and, from the large size of the seed, young Radish-plants are from their earliest growth more vigorous than young Turnip-plants, and suffer far less from the attacks of insects.

**Chinese Scarlet Winter Radish.**—A very distinct variety. Root long, thicker at the lower extremity than at the neck, blunt at both ends, and very like the Jersey Turnip in shape; skin very bright red, marked with some small semicircular white lines halfway round the root; flesh white, very firm and compact, pungent and sometimes slightly bitter; leaves rather broad, divided, and
spreading; leaf-stalks bright pink. The roots are of medium size, usually 4 or 5 in. long, about 2 in. in diameter at the thickest part of the lower extremity, and about 1 \(\frac{3}{8}\) in. below the neck. This variety is chiefly grown for autumn and winter use. It may be sown up to August, and much thicker than the other Winter Radishes. There is a pure white sub-variety of this Radish, and also a violet-coloured one, both of which only differ in colour from the present variety. If we had to admit that any variety of cultivated Radishes is derived from the Wild Radish (Raphanus Raphanistrum), the present variety is the one of all others to which we should be disposed to assign that origin; its leaves, root, and other characteristics presenting an appearance entirely distinct from any other cultivated kind.

**Deep Scarlet Pamir Turnip Radish.**—Resembles in colour the Scarlet Chinese Radish, but differs in shape, being almost spherical. The flesh is white, firm, and pungent; the skin bright scarlet. It keeps quite well up to mid-winter without becoming pithy, or starting into vegetation.

**Californian, or Mammoth White, Winter Radish.**—This Radish is even more like the Jersey Turnip than the Chinese Scarlet Winter Radish, being similar in shape and in colour. The root is pure white, long, cylindrical, and thickest at the lower end; it is from 6 to 8 in. long, about 2 \(\frac{1}{2}\) in. in diameter at the thickest part, and about 2 in. for the remainder of its length, and projecting between 1 and 2 in. above the ground. The leaves are large, broad, and a very light green. It is productive, and a good autumn or winter radish. The roots take two or three months to form; the flesh is mild, and not pungent.

The Japanese cultivate a great many kinds of Long White Radishes for table use. Some of these are said to produce roots of the almost fabulous weight of from 33 to 44 lb. each. When grown in Europe, most of these Japanese Radishes run to seed very rapidly, and are not of much value. An exception, however, is the variety they call *Ninengo daikon*, which is remarkable both
for the length and symmetry of its root and for its slowness in running to seed. The root is white, cylindrical, blunt, sometimes thick at the lower end, and often 16 to 20 in. long, and 3 to 4 in. in diameter. The leaves are large, very long, divided into a very great number of almost triangular lobes, and very dark green; they spread upon the ground, forming a broad flat rosette. To be grown to perfection it should be sown in April, and the soil very deeply dug and plentifully manured.

**Other Varieties**

*White Chinese, or Celestial, Radish.*—Root white, cylindrical, very large, flesh very white and rather mild flavoured.

*Radis Blanc Demi-long de la Meurthe et de la Meuse.*—A white Summer Radish, almost always pear- or top-shaped, but of unequal length. It grows to a pretty large size, but is usually pulled for use when half-grown, being then about the size of a hen's egg. The flesh is white, firm, and rather pungent.

*R. Früher Zwei-Monat.*—A late variety of the White Olive-shaped Radish, it is intermediate between the Summer Radishes and the Small or Forcing Radishes.

*R. Gris d'Eté Oblong.*—A pear-shaped or ovoid form of the Gray Summer Turnip Radish, but not so regular in shape and not superior to it in any way. The flesh is somewhat more pungent.

*R. Gros d'Hiver de Ham (R. Gros Gris d'Août).*—A true Winter Radish. Root long, cylindrical, ending in a blunt point, and about the size of the Long Black Winter Radish, but grayish white. It resembles the Laon Gray Winter Radish. It is called *Gris d'Août* because the roots are generally first pulled in August, but it is more of an Autumn or Winter Radish.

*R. de Mahon.*—An exceedingly distinct kind, peculiar to the Balearic Islands and some districts in the South of France. It is a Long Red Radish, the root being often angular (especially when it grows to a large size), and projecting from the ground for one-half or two-thirds of its length, like the Mangel-Wurzel. Its growth is remarkably rapid. The leaves are broad and stout. The flesh is pinkish white, very juicy, firm, and solid while young. The root does not grow hollow until it has attained the size of a small Beet-root.

*R. Rond Rouge Foncé.*—This is a particular variety of small Turnip Radish, which has a very dark, almost violet-coloured skin. It is rather in repute in the southern provinces of France, where it is said to resist the heat better than the Common Scarlet Turnip Radish.