

placed between them, and the space between the boards is filled with soil to a depth of four inches. When this is done, the board nearest the end is drawn out gently and put on the other side of the second row, against which the other leans. As soon as this is accomplished, the second board is drawn out and placed against the third row, so as to keep the soil in its place whilst it is being filled in between the second and third rows as was done between the first and second. This process of shifting the boards and filling in the soil is repeated until all the rows have been earthed up. In drawing out each board the soil should be placed nicely about the plants with the hand. By the use of boards as here advised, a large bed can be earthed up in a very short space of time. At each operation, the soil should be taken equally from both sides of the bed, and be also well broken up with the spade before it is used for filling in.

The best sorts for table are, Williams's *Matchless Red*, and Turner's *Incomparable White*. The large-growing sorts, in the way of *Hooley's Conqueror*, are too coarse for the table.

THE VARIETIES OF KALE, OR BORECOLE.

Report on Kales grown in the Garden at Chiswick in 1871-2. By ROBERT HOGG, LL.D., F.L.S. Pomological Director to the Royal Horticultural Society. From the Society's "Journal."



IT is exactly ten years since the last trial of kales was made in the Garden of the Society. That was a very partial one in comparison with this upon which I am now about to report, the number of varieties being much less, and the various names under which the different varieties were received greatly more numerous. When I reported on the same subject in 1862, I was struck by the amazing confusion in which the kales were found; and my surprise has not been lessened by the present trial.

From the very much fuller character of this year's experiments, I have been enabled in many cases to add to, and in some to correct, those of 1862. This I have been enabled to do by the very prompt and liberal manner in which the members of the seed trade have placed their collections at the disposition of the Society.

It is proper here to state that, although many errors in nomenclature are to be found in this report, apparently originating among the seedsmen, no blame is to be attributed to them, nor is there to be any impeachment of their good faith on that account; for this confusion of nomenclature has existed not only for years, but for generations, and, however anxious they may have been to correct it, the task was one most difficult of accomplishment.

Now, however, that something like order has been attained, I trust that a more general concurrence in nomenclature will be maintained.

ASPARAGUS KALE.—The original asparagus kale of a century and a half ago was a sprouting broccoli, which was introduced from

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Italy. It received its name from the young shoots, terminated by a "button," bearing somewhat of a resemblance to the young shoots of asparagus. In course of time the name gradually ceased to be identified with the broccoli, and was applied to another variety of kale, also introduced from Italy, called Milan kale, or *Chou de Milan*, which has the property of throwing up in the spring a profusion of long succulent shoots, which, when fully grown, resemble the shoots of asparagus. But there are several other varieties of kale to which the name is applied; and as there seems no uniformity on the subject, I shall quote the varieties which different seedsmen regard as asparagus kale.

Messrs. Minier, Nash, & Nash are correct in supplying Milan kale. Messrs. Fraser and Mr. B. S. Williams supply Buda kale. Messrs. Back & Co., Messrs. James Carter & Co., Messrs. Henry Clarke & Sons, and Mr. George Gibbs, supply Couve Tronchuda. Messrs. Wrench & Sons, Messrs. Sutton & Sons, Messrs. J. & C. Lee, Messrs. Nutting & Sons, and Mr. William Paul, supply Siberian kale; and it is to be remarked that, as all these varieties produce an abundance of succulent shoots in spring, the name is not misapplied; still it would be as well if it were confined to one particular variety, and that this should be the Milan kale.

BUDA KALE.—This is one of those varieties that are called asparagus kale. It is very dwarf-growing, the stock being not more than six inches high, and very leafy. In this condition it remains all the winter; and in spring numerous long shoots are produced, some of which are from two to two feet and a half in length. The leaves are smooth and very much waved. There are three varieties of Buda—the *green*, the *purple*, the *lettuce-leaved* or *strap-leaved*. There is no difference, except in colour, between the green and the purple varieties; but the lettuce-leaved is very distinct, the blade of the leaf being decurrent down the whole length of the footstalk, resembling in that respect the leaf of a lettuce, or of Laing's Swedish turnip. As regards utility and fertility, there is no difference; and all are equally hardy.

The Buda of Messrs. Minier, Nash, & Nash, and of Messrs. Wrench & Son was true; that of Messrs. G. Gibbs and of Messrs. J. & C. Lee was Siberian; and that of Messrs. A. Henderson & Co. was Couve Tronchuda. It was also received from the following sources perfectly true, under different names, thus:—From Messrs. Fraser and Mr. B. S. Williams the purple variety as asparagus kale. From Messrs. Carter & Co. and Messrs. Wrench & Son as Delaware. From Messrs. Wrench & Son as Jerusalem. From Messrs. A. Henderson & Co., and I. Cattell as purple Jerusalem. The green variety was sent by Mr. J. Grant as Lapland kale, by Mr. Cattell as Egyptian, by Messrs. Sutton & Son as New Winter kale, and by Messrs. Vilmorin, of Paris, as Chou à faucher. The lettuce-leaved variety was sent by Messrs. Henry Clarke & Sons as Jerusalem kale.

COTTAGER'S KALE.—It seems to be generally agreed that the cottager's kale is to preserve its undisputed individuality, as there were no instances, throughout the trial, of this excellent variety being received under any other name.

CURLED KALE.—By far the most popular and most exclusively cultivated of all the kales are the curled or *Scotch kales*, sometimes also called *Curlies*, *German Greens*, or *Borecole*.

There are four distinct forms of the curled kale—the dwarf and tall green curled, and the dwarf and tall purple curled. Those which are most generally cultivated are the green forms; and the great object of cultivators is to obtain these with the leaves as finely and as much curled as possible; and, in proportion as they are so, the more or less is the stock appreciated. Hence has arisen the great number of names under which they are sold. From Messrs. Drummond Brothers and Mr. Cattell, the green form was received as *Prince of Wales*; from Messrs. H. Clarke & Son and Messrs. Carter & Co., as *Hearting kale*; from Messrs. Hurst & Son as *Cabbaging* and *Tall curled*; from Messrs. Sutton & Son as *Selater's New Cabbaging*; from Messrs. Carter & Co. as *Feathered Scotch* and *Abergeldi*; from Messrs. Lawson & Son as *Superb Parsley curled*, *Williams's Matchless*, and *Pontefract green curled*; from Messrs. Stuart & Mein as *Tynningham*; from Mr. William Paul as *Jackson's late curled*; from Messrs. Fisher, Holmes & Co. as *Dwarf green curled Handsworth*; from Messrs. Veitch & Son as *Veitch's dwarf late curled*; from Messrs. Minier, Nash & Nash, and Messrs. Beck, as *Dwarf green curled Canada*; from Messrs. F. & A. Dickson as *Dickson's Imperial dwarf curled*; and from Messrs. Barr & Sugden as *New moss curled*. All of these differed from each other only in the degrees of intensity with which the leaves were curled; and in this respect the *New moss curled* of Messrs. Barr & Sugden was remarkable.

The Dwarf purple form was sent by Messrs. Carter & Co. as *Jerusalem kale*, and by Messrs. A. Henderson & Co. as *Lapland*; the Tall purple from Messrs. Wrench & Son as *Brown Borecole*.

JERSEY KALE.—This is also called *Cesarean cow-cabbage*, *Tree-cabbage*, and *Jersey Borecole*. It is a tall-growing plant, attaining the height of four or five feet, the stem clothed with long, broad glaucous green leaves, with long foot-stalks. In spring it throws out numerous long tender shoots, with which cattle are fed. It is never grown as a garden vegetable.

LONG SCOTCH KALE.—This was received from Mr. William Gorrie, of Edinburgh, as the true "Long Scotch kale." It is the normal form of the wild cabbage, as it is found on the Dorsetshire coast. It was sent by Messrs. Vilmorin & Co., under the name of *Couve murciana*—and by Messrs. Sutton & Son, of *Buckman's hardy winter greens*.

MARROW KALE.—This is the *Chou moellier* of the French—a form of the Jersey kale which produces a long thickly-swollen stem like a gigantic cigar, the swollen part being filled with a mass of tender pith. There are three varieties of the Marrow kale, distinguished as the *white*, the *purple*, and the *small*. The white grows from four to four and a half feet high, the stem being smallest at both ends, and thickest in the middle, where it is about a foot in circumference in the largest specimens.

MILAN KALE.—The name by which this is often called is *Chou*
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de Milan. It is unfortunate that it is so; for *Chou de Milan* is the name given by the French to Savoys. Except that they both belong to the same genus, there is no resemblance whatever between the Milan kale and a Savoy. The Milan kale produces a stock from eighteen inches to two feet high, clothed with plane bluntly-toothed leaves, and terminated by a close rosette of leaves forming a small incipient head. In spring it throws out a large quantity of fine succulent shoots, which, when cooked, form one of the most delicious dishes of the winter-green class; and it is from this circumstance that the plant has been called *Asparagus kale*.

From Messrs. Beck & Co., G. Gibbs & Co., Nutting & Sons, Minier, Nash & Nash, and Mr. Cooper, it was received perfectly true under the correct name. There is a purple variety received from Messrs. Vilmorin, under the name of *Flanders purple*.

PALM KALE.—The stem is two feet to two and a half feet high, clothed with large oblong obovate leaves, the blade of which is decurrent the whole length of the footstalk, of a dark green colour, which curve gracefully upwards and outwards, giving the plant the aspect of a miniature palm. In the spring it throws out a profusion of long slender shoots, which are of no value as a vegetable. After these shoots are produced, the plant entirely loses its ornamental character. It was received from Messrs. Vilmorin under the name of *Chou Palmier*.

RAGGED JACK.—Like the Cottager's kale, this seems to have few synonyms. Its character is sufficiently distinct to render it easy of identification, being a very dwarf variety, with a stock not more than four to six inches high, and leaves which are deeply lacinated, the segments being trifid or multifid. It is generally of purple colour, and occasionally green. In the spring it produces a great quantity of tender shoots, which are much esteemed as a vegetable. It was received from Mr. B. S. Williams as *Camberwell Borecole*.

SIBERIAN KALE.—This is one of the hardiest and one of the best of all the sprouting kales. It is also very distinct, and can never be confounded with any other variety. The stock is very dwarf, being only four to six inches high. The foliage is always green. The leaves are sinuated, coarsely serrated, and plaited on the margin. In spring it produces a large crop of tender shoots, from a foot to fifteen inches in length.

This is one of the varieties the nomenclature of which is very confused. From Mr. B. S. Williams it was received quite true as "Siberian" or *Lapland*; from Messrs. Wrench & Son, Sutton & Son, William Paul, J. & C. Lee, and Nutting & Sons, it was received under the name of *Asparagus kale*; from Mr. George Gibbs, as *Buda kale*; from Nutting & Son, A. Henderson & Co., J. Cattell, and Drummond Brothers, as *Delaware*; from Messrs. Minier, Nash & Nash, Sutton & Sons, G. Gibbs, J. & C. Lee, Carter & Co., and Cooper, as *Jerusalem*; from Messrs. Carter & Co. as *Acme*; and from Mr. Cattell as *Curled Jerusalem*.

WOBURN KALE.—This closely resembles the wild cabbage and long Scotch kale; but it appears to be of a more perennial character. It may be propagated by cuttings, as, indeed, all the other varieties

may ; but it is more woody and shrub-like in its growth. It is not worth cultivating, except in very northern and exposed situations, as it is very hardy, and will stand more rigorous winters than perhaps any of the other varieties.

USEFUL HINTS ON SEED-SOWING.

BY JAMES CALVERT.



Over-estimate the importance of sowing vegetable and flower seeds at the right moment and in the proper manner would be difficult, and I feel that no apology is needful for offering a few suggestions which cannot prove otherwise than useful. It is, however, not only necessary to sow the seed properly, but it is of the utmost importance to buy it early in the season, so that it will be at hand when required for sowing. Very frequently the seed is not ordered until a day or so before it is wanted, and owing to the great pressure upon the seed houses at that particular moment, the order is not executed until the opportunity for sowing it is lost. The English climate is so changeable during the early part of the year, that if a favourable opportunity is lost it may not, perhaps, occur again for some weeks, or perhaps not until it is too late to sow that particular seed, and the chances of a crop lost. The main order should be handed to the seedman early in February, so that if there is a few days' delay it will not be of much consequence.

On the subject of purchasing seeds much might be said, but space will only allow me to give a few plain directions, and the first of these is—Buy of a respectable house, if you have to pay a few shillings more for your annual supply ; better by far to do this than to buy cheap seeds, and have nothing but failures and vexations hereafter. Some people do not attach sufficient importance to the subject of buying good seed, and consequently they are sufferers in the end, for it often happens that a crop fails ; and, lastly, I would say, buy enough. I am not an advocate for an extravagant seed order, but for all ordinary outdoor crops every packet should be large enough to make two sowings if only one is wanted ; and then, should the first fail, which is sometimes the case, the remainder will serve, and perhaps save the loss of a crop altogether ; whereas, if the amateur has to wait two or three days or a week for a fresh packet of seed, the season for sowing will be past, and the crop for that year lost. These are serious considerations, when we consider the difficulties which attend the raising of seeds out of doors in early spring.

The observations I am about to make on the subject of seed-sowing will I hope be acceptable to all readers, for it is an important operation, and when injudiciously performed leads to many disappointments. Perhaps the first consideration in connection with seed-sowing is that all should understand that both heat and moisture