## VEGETABLE CULTURE.

As a rule, we choose to grow bush beans rather than pole beans. I cannot make up my mind whether or not this is from sheer laziness. In a city backyard the tall varieties might perhaps be a problem since it would be difficult to get poles. But these running beans can be trained along old fences and with little urging will run up the stalks of the tallest sunflowers. So that settles the pole question. There is an ornamental side to the bean question. Suppose you plant these tall beans at the extreme rear end of each vegetable row. Make arches with supple tree limbs, binding them over to form the arch. Train the beans over these. When one stands facing the garden, what a beautiful terminus these bean arches make.

Beans like rich, warm, sandy soil. In order to assist the soil be sure to dig deeply, and work it over thoroughly for bean culture. It never does to plant beans before the world has warmed up from its spring chills. There is another advantage in early digging of soil. It brings to the surface eggs and larvae of insects. The birds eager for food will even follow the plough to pick from the soil these choice morsels. A little lime worked in with the soil is helpful in the cultivation of beans.

Bush beans are planted in drills about eighteen inches apart, while the pole-bean rows should be three feet apart. The drills for the bush limas should be further apart than those for the other dwarf beans say three feet. This amount of space gives opportunity for cultivation with the hoe. If the running beans climb too high just pinch off the growing extreme end, and this will hold back the upward growth.

Among bush beans are the dwarf, snap or string beans, the wax beans, the bush limas, one variety of which is known as brittle beans. Among the pole beans are the pole limas, wax and scarlet runner. The scarlet runner is a beauty for decorative effects. The flowers are scarlet and are fine against an old fence. These are quite lovely in the flower garden. Where one wishes a vine, this is good to plant for one gets both a vegetable, bright flowers and a screen from the one plant. When planting beans put the bean in the soil edgewise with the eye down.

Beets like rich, sandy loam, also. Fresh manure worked into the soil is fatal for beets, as it is for many another crop. But we will suppose that nothing is available but fresh manure. Some gardeners say to work this into the soil with great care and thoroughness. But even so, there is danger of a particle of it getting next to a tender beet root. The following can be done; Dig a trench about a foot deep, spread a thin layer of manure in this, cover it with soil,

and plant above this. By the time the main root strikes down to the manure layer, there will be little harm done. Beets should not be transplanted. If the rows are one foot apart there is ample space for cultivation. Whenever the weather is really settled, then these seeds may be planted. Young beet tops make fine greens. Greater care should be taken in handling beets than usually is shown. When beets are to be boiled, if the tip of the root and the tops are cut off, the beet bleeds. This means a loss of good material. Pinching off such parts with the fingers and doing this not too closely to the beet itself is the proper method of handling.

There are big coarse members of the beet and cabbage families called the mangel wurzel and ruta baga. About here these are raised to feed to the cattle. They are a great addition to a cow's dinner.

The cabbage family is a large one. There is the cabbage proper, then cauliflower, broccoli or a more hardy cauliflower, kale, Brussels sprouts and kohlrabi, a cabbage-turnip combination.

Cauliflower is a kind of refined, high-toned cabbage relative. It needs a little richer soil than cabbage and cannot stand the frost. A frequent watering with manure water gives it the extra richness and water it really needs. The outer leaves must be bent over, as in the case of the young cabbage, in order to get the white head. The dwarf varieties are rather the best to plant.

Kale is not quite so particular a cousin. It can stand frost. Rich soil is necessary, and early spring planting, because of slow maturing. It may be planted in September for early spring work.

Brussels sprouts are a very popular member of this family. On account of their size many people who do not like to serve poor, common old cabbage will serve these. Brussels sprouts are interesting in their growth. The plant stalk runs skyward. At the top, umbrella like, is a close head of leaves, but this is not what we eat. Shaded by the umbrella and packed all along the stalk are delicious little cabbages or sprouts. Like the rest of the family a rich soil is needed and plenty of water during the growing period. The seed should be planted in May, and the little plants transplanted into rich soil in late July. The rows should be eighteen inches apart, and the plants one foot apart in the rows.

Kohlrabi is a go-between in the families of cabbage and turnip. It is sometimes called the turnip-root cabbage. Just above the ground the stem of this plant swells into a turnip-like vegetable. In the true turnip the swelling is underground, but like the cabbage, kohlrabi forms its edible part above ground. It is easy to grow. Only it should develop rapidly, otherwise the swelling gets

woody, and so loses its good quality. Sow out as early as possible; or sow inside in March and transplant to the open. Plant in drills about two feet apart. Set the plants about one foot apart, or thin out to this distance. To plant one hundred feet of drill buy half an ounce of seed. Seed goes a long way, you see. Kohlrabi is served and prepared like turnip. It is a very satisfactory early crop.

Before leaving the cabbage family I should like to say that the cabbage called Savoy is an excellent variety to try. It should always have an early planting under cover, say in February, and then be transplanted into open beds in March or April. If the land is poor where you are to grow cabbage, then by all means choose Savoy.

Carrots are of two general kinds: those with long roots, and those with short roots. If long-rooted varieties are chosen, then the soil must be worked down to a depth of eighteen inches, surely. The shorter ones will do well in eight inches of well-worked sandy soil. Do not put carrot seed into freshly manured land. Another point in carrot culture is one concerning the thinning process. As the little seedlings come up you will doubtless find that they are much, much too close together. Wait a bit, thin a little at a time, so that young, tiny carrots may be used on the home table. These are the points to jot down about the culture of carrots.

The cucumber is the next vegetable in the line. This is a plant from foreign lands. Some think that the cucumber is really a native of India. A light, sandy and rich soil is needed I mean rich in the sense of richness in organic matter. When cucumbers are grown outdoors, as we are likely to grow them, they are planted in hills. Nowadays, they are grown in hothouses; they hang from the roof, and are a wonderful sight. In the greenhouse a hive of bees is kept so that cross-fertilization may go on.

But if you intend to raise cucumbers follow these directions: Sow the seed inside, cover with one inch of rich soil. In a little space of six inches diameter, plant six seeds. Place like a bean seed with the germinating end in the soil. When all danger of frost is over, each set of six little plants, soil and all, should be planted in the open. Later, when danger of insect pests is over, thin out to three plants in a hill. The hills should be about four feet apart on all sides.

Before the time of Christ, lettuce was grown and served. There is a wild lettuce from which the cultivated probably came. There are a number of cultivated vegetables which have wild ancestors, carrots, turnips and lettuce being the most common among them. Lettuce may be tucked into the garden almost anywhere.

It is surely one of the most decorative of vegetables. The compact head, the green of the leaves, the beauty of symmetry all these are charming characteristics of lettuces.

As the summer advances and as the early sowings of lettuce get old they tend to go to seed. Don't let them. Pull them up. None of us are likely to go into the seed-producing side of lettuce. What we are interested in is the raising of tender lettuce all the season. To have such lettuce in mid and late summer is possible only by frequent plantings of seed. If seed is planted every ten days or two weeks all summer, you can have tender lettuce all the season. When lettuce gets old it becomes bitter and tough.

Melons are most interesting to experiment with. We suppose that melons originally came from Asia, and parts of Africa. Melons are a summer fruit. Over in England we find the muskmelons often grown under glass in hothouses. The vines are trained upward rather than allowed to lie prone. As the melons grow large in the hot, dry atmosphere, just the sort which is right for their growth, they become too heavy for the vine to hold up. So they are held by little bags of netting, just like a tennis net in size of mesh. The bags are supported on nails or pegs. It is a very pretty sight I can assure you. Over here usually we raise our melons outdoors. They are planted in hills. Eight seeds are placed two inches apart and an inch deep. The hills should have a four foot sweep on all sides; the watermelon hills ought to have an allowance of eight to ten feet. Make the soil for these hills very rich. As the little plants get sizeable say about four inches in height reduce the number of plants to two in a hill. Always in such work choose the very sturdiest plants to keep. Cut the others down close to or a little below the surface of the ground. Pulling up plants is a shocking way to get rid of them. I say shocking because the pull is likely to disturb the roots of the two remaining plants. When the melon plant has reached a length of a foot, pinch off the end of it. This pinch means this to the plant: just stop growing long, take time now to grow branches. Sand or lime sprinkled about the hills tends to keep bugs away.

The word pumpkin stands for good, old-fashioned pies, for Thanksgiving, for grandmother's house. It really brings more to mind than the word squash. I suppose the squash is a bit more useful, when we think of the fine Hubbard, and the nice little crooked-necked summer squashes; but after all, I like to have more pumpkins. And as for Jack-o'-lanterns why they positively demand pumpkins. In planting these, the same general directions hold good which were given for melons. And use these same for squash-planting, too. But do not plant the two cousins together, for they have a tendency to run together. Plant the pumpkins in between the hills of corn and let the squashes go in some other part of the garden.