



What Farmers Want to Know

By W. F. MASSEY

The Fall and Winter Garden: Get Ready for It Now

ALREADY the queries are coming in asking for methods of growing late cabbage and late Irish potatoes. Hence it is desirable to take up in detail the fall garden. Few farmers realize the amount of food a good garden will furnish in the fall and all winter through. Dug, planted and cultivated solely by my two hands, gardening gives me in winter fresh from the soil parsnips, salsify, leeks, lettuce, parsley, spinach, kale, Brussels sprouts, cabbage, Chinese cabbage, carrots, beets, and during the summer the surplus is canned and dried, and we add to fresh vegetables the canned ones and the dry beans and black-eye peas, and in fact almost live out of the garden summer and winter.

A few days ago I was strolling among the flowers in the front of my garden when a man from Virginia came up. He said, "I have been reading about this garden for ten years, and being in your city, I came out to see it." I told him that my garden is not a show garden, and since two old hands have to do all the work in it there are some things that are not as neat as they should be, for the walks are more grassy than I have ever had them. The garden is 50 by 200 feet, and there are hundreds of square yards of lawn to be cared for. In fact, being on one end of a street only half finished and having put down the concrete sidewalks at my own expense, I have extended my lawn across the street, which at this point is little used, as I am right on the outskirts of the city. To keep the street from growing up in weeds I run the lawn mower across it and it is now as neat as any part of the lawn.

The garden proper is enclosed by a woven wire fence on steel posts set in concrete. This fence enables me to grow many things without the fence taking appreciable space in the garden. Lima beans, late tall peas and other things needing support are grown on the fence. Hence there are no unsightly bean poles in my garden. I have told much about the early garden work, and now in early June we are preparing for the fall and winter crops while eating the earlier ones.

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Right now (June 3) I am setting plants of the Savoy cabbage for fall use, and am sowing seed to produce plants for the cabbage crop to store and use in winter. Seed of parsnips and salsify are now to be sowed and before the end of the month seed of late beets and carrots will be sowed.

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Now too I am setting the late tomato plants which will give us the main canning supply, for we do not can the early ones. The early tomatoes are getting bigger daily and we will soon have the ripe ones, and the succession will keep up till frost, for the second planting is now getting of good size.

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Early Irish potatoes are large enough to eat according to the general habit, but we prefer to let them get larger and more mature while the old potatoes are good and cheap. A friend in South Carolina writes that he noticed that I said that cold storage potatoes are necessary for the planting of the late crop. I did not say that, but did say that they are best, and will make the better crop than the seed of the present crop will. But you can grow the second crop from this summer's seed. The Early Rose and the Triumph will

both make a better second crop than the Irish Cobbler. Any of them will be ready to plant sooner if cut in halves when dug.

My South Carolina correspondent says that he keeps the early potatoes easily by spreading them out six or eight inches deep on any floor where they will not be exposed to the sunlight. Doubtless in a cool and perfectly dark place the early potatoes can be kept till fall, but I have never seen them keep through the winter unless put in cold storage. The late crop is best for winter use and spring seed.

My practice, when I grew the second crop, was to cut the potatoes in halves after letting them get perfectly mature, then spread them out in any convenient place and cover with pine straw kept rather moist. Then plant in deep furrows as they sprout, but cover lightly till they get above the ground. I find that by getting the potatoes that have been kept from last fall crop in cold storage, exposing them to the light a few

curled kale for fall use. There is no greens equal to spinach, and the kale is also good after frost strikes it. If you have grown the plants, now is the time to set Brussels sprouts. These little cabbage heads come in at their best after frost has cleaned up the tender stuff.

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I never leave room vacant for any of the late crops, for there are always early crops coming off and the space is used for the late crops. Early in August too we make the first sowing of lettuce to make plants to set for heading in the open ground, and a month later I sow again to make plants to set in the frames for heading at Christmas and New Year. A garden without frames and sashes is rather deficient in facilities for making a good garden. You can grow lettuce and some other things under cotton cloth, but much inferior to those grown under glass. As I have said elsewhere, the growing of late cabbage is very largely a matter of feed, and I should have said that it is important to fight the green caterpillars which devour the leaves. The late Peter Henderson once said that while poisons and other things would destroy the caterpillars, he found that pushing the plants fast with heavy fertilization was as good as anything, and that he could get the

damage to the roots and the tubers, for roots and tubers are the result of the work of the leaves, and without leaves would soon perish. The leaves take in carbon dioxide from the air, and the green matter in the leaves has the power to break up this combination and take the carbon and return the oxygen to the air. This carbon unites with the hydrogen and oxygen in the soil water taken up by the roots. This forms the carbohydrates of which the first we can detect in the plant is starch. Starch is the foundation for all tissue-building in the plant. It is used by the active living matter in the building of cell walls and is transformed into sugar and oils and acids in the plant. Then the plant stores the surplus starch as starch in seeds and the underground stems we call tubers and in true roots.

The Irish potato and the artichoke are transformed stems with buds or eyes like the stems above ground. The sweet potato is a true root swollen with starch and sugar and with buds at the base of the stem.

These tubers and swollen roots are very largely made up of starch, and since the plants cannot form starch or make growth without healthy leaves, it is easy to see that you cannot cut the tops and have a good crop of tubers develop. You cannot eat a cake and keep it for tomorrow. By far the greater part of the growth of all plants with green leaves comes from the air through the leaves and not from the soil or roots. If you keep the tops constantly cut off from a plant, all the roots and underground part will soon die. The roots and tubers cannot grow without the leaves.

Destroying Moles

THIS is a perennial question. I doubt the possibility of ever permanently getting rid of the moles. Traps and poisons will to some extent check them, or rather the field mice that do the mischief, for the moles are after insects and worms. But they are of course responsible for the runs that the mice use. Some find traps effective. I never have. And then it is not so much the mole we want to catch, though his hills are a nuisance. We want to catch the fellows that eat the roots and bulbs of plants. I have found carbon disulphide effective, but rather expensive. Last year I found that the mice were devouring some tulip bulbs. I had a lot of wheat bran, molasses and Paris green mixed for cut worms. I opened the run right where the tulips were withering and stuffed in a lot of this. I did not lose another bulb. I believe this bran, mixed 50 parts bran and 1 part Paris green with water half molasses will kill the mice if well placed in the runs over a considerable area. A writer in a Northern farm paper says that the calcium carbide used for making acetylene gas if placed here and there in the runs will generate gas and kill all in the runs.

Growing Bermuda Grass From Seed

"I HAVE a corn patch which I wish to get into Bermuda grass for pasture. How many seed and how much fertilizer should I use an acre? I intend to sow when corn is laid by."

So far as I have observed, the seed of Bermuda grass are of rather low germinating quality, and if I used the seed I would sow 15 pounds an acre. That is a good bushel an acre. But I think that the best way to get the land set in this grass is to plant the running stems in April in shallow furrows two feet apart. The seed sowed at corn laying-by time would have a shorter season and may not get strong enough to winter well, for the Bermuda is a hot weather grass. Not knowing the fertility of your soil, I do not know whether fertilizer will be needed.

THE BUSINESS FARMER'S CALENDAR: FIVE THINGS TO DO THIS WEEK AND NEXT

PLANT the stubble land to a second crop just as quickly now as you can. Failure to do so means that your land is giving you only about one-half the returns it should.

2. See that all doors and windows are well screened and prevent as far as possible the breeding of flies and mosquitoes. Remember, these pests carry disease and death.

3. Keep on planting sweet potatoes, cowpeas for table use, hay and grazing, and crops in the garden.

4. Rush cultivation, killing grass and weeds and saving moisture, at the same time injuring the roots of the growing crops as little as possible.

5. Make plans to observe June 28 as National War Savings Day. Every man, woman and child in the country should be the owner of Thrift Stamps and Baby Bonds.

days, I can get them to sprout quickly and get a more uniform and earlier stand than by growing the crop from seed of the present crop, especially where the Irish Cobbler is used, for this variety is slow to sprout.

The best time here to plant the late crop is the middle of July, while with the crop of this season it will be well into August before they sprout. There is a special reason this summer for planting an unusually large crop of late potatoes. The early crop will hardly give the growers any profit. The great crop grown in the North last year and the difficulty of getting any market for them will act as a discouragement to the Northern growers and there will probably be a reduction in area planted. This season's crop will supply the winter needs, and if the early varieties are used they will make the most productive seed for planting the spring crop, and the chances are that the early crop of potatoes from the South in 1919 will be more profitable than this season. Still it is too early to predict conditions, but this is how it looks now.

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There is nothing more wholesome in winter than plenty of green stuff and salad plants. If you have not planted any pimiento peppers you should buy some plants and set them at once. I start these with the early tomatoes and they begin to bear in June and keep bearing till frost. We boil the green pods and eat them like greens. Later some are stuffed with cabbage and pickled for winter, and a few specially fine pods are saved for seed.

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Later, in early August, we make the first sowing of spinach and green

finest of heads and get them faster than the caterpillars could eat them. There is a good deal of truth in this, and one of the most valuable helps after heavy manuring late cabbage is to push them with nitrate of soda.

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From the middle of June to early July the plants of leeks grown in a seed bed will be transplanted to open furrows in soil that has been made rich by previous heavy manuring. The rows are 16 inches apart and the plants set three inches apart. These will take the place of green onions in the winter, being very hardy and left to stand where they grow. I let these stand and also the late beets, salsify, carrots and parsnips and they are taken up for use as needed.

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Later we will have a talk about other fall and winter things at the time when they should be planted, such as celery, cauliflower, etc.

Green Leaves Make Roots and Tubers

"IN MARCH I planted an acre of Jerusalem artichokes for my hogs to eat next winter. They are growing finely, with three to four stems three feet high from each root. I have been told that I can cut the tops and feed them to my stock and they will make just as large a crop of tubers as if the tops were not cut." Is this true?"

The one who told you that sort of nonsense knows very little about plant life. For the growth and life of the plant and the making of the underground stems we call tubers it is essential that the plant carry a full crop of healthy leaves. Anything that damages the tops and leaves is a