What Farmers Want to Know

By W. F. MASSEY

The Fall Garden

"WE ARE told to make plans for the fall and winter garden. Please tell me what varieties of seed and at what time to plant beets, green peas, rutabagas, turnips, onions, lettuce, kale, spinach, radishes and any other fall crops or winter crops."

You can plant up to early August Blood turnip beets. Dewings is best. The early dwarf varieties of garden peas can be planted in August in deep furrows and covered lightly till they grow and then gradually earthed till level. If the season is favorable they may do well, but are very uncertain, as in hot dry weather they are apt to mildew and fail. The Sutton Excelsior and Thomas Laxton are about the best. Rutabagas and the long White French, or as some call it the large White French, turnip are better sowed in late July, but may do well sowed early in August. A friend wrote recently that he had applied to Richmond seedsmen for this French turnip, and they ridiculed the idea and said there is no such turnip. As I have a package of them on my desk as I write, and as I have grown them many years, I can say that the seedsmen had better get posted on one of the oldest varieties of turnips. In early August you can sow seed of the Early Milan turnip for fall use, and later in the month can sow the Purple-top, Strap-leaf and Large Globe Purple-top, and the Yellow Aberdeen, which are better for winter use than the Milan.

Onion sets of the Pearl and the Yellow Potato onions are planted in September for early green and ripe onions. I usually grow the Norfolk Queen onion for the earliest, but last year there was an entire failure of this variety in this country, and I have had to substitute the Pearl, a similar but later sort. Then in January you can sow seed of the Prizetaker, Commercial and Giant Gibraltar in a frame under glass sashes, and transplant them in March to make large ripe onions. This has been my practice. But last year I grew sets of these Spanish onions and planted them the past spring and have made very fine onions. And as it is cheaper to make sets and keep them over than it is to grow the plants under glass, I shall use the sets hereafter, planting them in early spring.

For a fall crop of lettuce in the open ground sow seed of Big Boston and Hanson early in August. Transplant into beds about six feet wide with alleys between if more than one bed is wanted, and set the plants ten inches apart each way. Fertilize very heavily with rotten manure and commercial fertilizers, and urge a rapid growth by scattering nitrate of soda between the rows.

Then in September sow seed of the Big Boston to set in cold frames for heading under glass at Christmas and New Year. Later I sow more seed in a frame to set in January for late winter and early spring heading.

The Norfolk curled kale sow in September for winter use. Sow some spinach in August for fall use and again in early September and about the last of September I sow some broadcast in heavily enriched soil to winter over for early spring cutting. The spinach season can also be prolonged by sowing more in February.

In August sow seed of the Celestial Chinese radish, the Red Chinese turnip radish and the Japanese Sakurijima radish. These grow to a very large size and can be kept in winter. The Celestial is very large and white in color, and boiled like turnips makes a better dish to my taste than turnips. The rose-colored Chinese winter radish is the hardiest of the winter radishes that I have tried. They can be left in the rows where they grew and mulched with rough manure can be pulled all winter in good shape. I once pulled and sold these radishes all through the winter in North Carolina, and have had them stand in northern Maryland when the chickweed matted over them and made a mulch.

You can set plants of the Late Flat Dutch cabbage in August in strong and heavily manured soil and make heavy heads in early December, and cabbage headed then will keep better in winter than earlier headed ones. You can sow seed of the Fottler Brunswick cabbage in early August, and make fine heads, for this is one of the quickest growing of the Drumhead class.

You can plant snap beans in August for late use. The Red Valentine or the Black Valentine either will do, the Black being earlier. With old frames and glass sashes many things can be grown during winter and early spring, and every garden should be provided with these. I use portable frames, each carrying three sashes and each sash three by six feet with two layers of glass making a dead air space to keep out frost. With the frame banked with earth on the outside, these double-glazed sashes will keep out all frost down to zero. The frames being portable, I can move them from place to place and avoid getting the soil diseased in one place. Winter gardening with a number of these frames is very interesting and profitable.

How to Grow Lettuce and Celery

"I AM seeking information in regard to the cultivation of lettuce and celery. I have a piece of bottom land in rather a poor state of cultivation. There is plenty of moisture, but what I wish to know is in regard to the fertilizer to use. Will woods mold, say 100 loads mixed with 1,000 pounds of cottonseed meal an acre, answer for these crops? I can get an unlimited amount of woods earth. There is usually much demand for fall lettuce."

As you simply mean probably the fall crop of lettuce from the open ground rather than the winter crop in frames under glass or cloth, I will confine my reply to this. A compost of 100 loads of woods earth, 1,000 pounds of cottonseed meal and 1,000 pounds of acid phosphate will answer very well in lieu of stable manure for lettuce. Sow seed early in August of the Big Boston variety. Sow thinly so as to get strong plants. When large enough and the land has been prepared and in good order, set the plants in six-foot beds ten inches apart each way. In the preparation you can plow the land in six-foot rows and level them nicely, leaving alleys between the beds for cultivation by hand, for it will not pay to plant the crop wide enough for horse cultivation. After setting the plants and they start to grow, give them nitrate of soda between the rows at the rate of 150 pounds an acre, for lettuce to be good must be grown fast. Do this when the plants are dry so as to avoid scalding the leaves if any nitrate touches them. With clean cultivation the crop should head very well in October and November.

To grow celery you will need strong plants to set in August. The best method of growing this is the Baltimore bed method, which I have already described, but will repeat. Have a planting board a foot wide and six feet long with the ends cut square. Stretch a line along the side of the proposed bed. Start at one end and set the planting board, which should have notches cut on both edges six inches apart, square with the line. Then set a plant at each notch on both sides. Then move the plank to coincide with the last row set, and so on till the bed is planted. Where more than one bed is planted, leave eight feet between the beds for earthing. Cultivate clean. The bed will have rows a foot apart and six inches in the rows, making eleven plants in each row. Never handle or cultivate when wet.

As the tops get large and inclined to fall over, start the earthing to keep them erect. Two twine strings with gs in each end can be used for this. Stick a peg at the end of a row and take a turn of the string around each plant in the row and stick the other peg at the far end. Treat the second row in the same way. Then shovel in some soil and pack it to the plants by hand. Treat every pair of plants in the bed the same way. This handling up will keep the plants erect, and as the nights get cool you can start the regular earthing. Shovel in the soil, keeping the growing heart of the plants just above the soil and carrying the soil six or more inches outside the ends of the rows, making the bed full six feet wide. Continue this earthing till late November or early December, or when the hard freezing threatens. Then earth the beds all over and cover with pine straw thickly. You can take the celery out from the bed as wanted.

$500 More a Year for the Average Southern Farmer

GET ACQUAINTED WITH THE EXPERIMENT STATIONS AND THEIR WORK

By PROF. W. F. MASSEY

EVERY state has an experiment station established for the purpose of investigating every problem affecting the success of the farmers of the state. These stations are equipped with laboratories for chemical research, and microscopes for the study of plant diseases and insects, and men who have made a special life study of these things.

Then when you have diseases or insects affecting your crops the experiment station is the place to send specimens and get advice. Farmers often send me plants affected by disease and if I had the laboratory facilities perhaps I could help them; but it is only in cases of familiar diseases that I am at present able to advise. But the station men are there for that purpose and have every facility for study, and are better able to give advice as to treatment than an editor is.

Then if possible visit the station in your state and see what they have to show in the field tending to make your work at home more sucessful. Many of the stations are conducting experiments in crop rotations, and much can be learned by seeing what is being done. Then, above all, have your name listed for all the bulletins published by your station, and study them, and everything you find that can be adopted.

Borrow Their Ideas and Use Them

YOU will find at most stations experiments in progress in the breeding of the plants that make your crops, and as I have before suggested, you can increase the profit in your crops as much by improving the seed planted as by improving the land itself. The stations will show you the methods used for the improvement in the productivity of crops, and you can gather ideas that will often put more than the $500 in your pocket if you make these ideas your own.

The day has gone by in the South for men to ridicule what they call "book farming." Today the farmer who is to succeed must be a student not only of the best books that have been published on his profession, but must be a constant student of the bulletins which report the results of the scientific investigations that are applicable to his calling.

The advance in agriculture has been mainly due to the investigations of the experiment stations. They have have made real vocational education in agriculture possible. Before the establishment of the experiment stations the colleges of agriculture were stumbling along in the dark in many respects, and there was a general lack of interest in agricultural education.

Thirty years ago the agricultural departments of the colleges of agriculture and mechanic arts had each but a handful of students in agriculture. In fact, one of the leading colleges where now the students in agriculture run up to a thousand had then one solitary student of farming.

I can well remember the first years of the North Carolina College, when the farmers who sent their sons wanted them to study anything but farming, for they thought that that could be best learned at home.

But it has been the work of the experiment stations that has given the colleges the material for instruction, and through farmers' institutes, demonstrations and the farm papers the farmers have waked up to the importance of study and education in their profession, and now all the state colleges of agriculture and mechanic arts are being crowded with students in agriculture.

Therefore keep in touch with your station, get and study its bulletins. Get the monthly list of bulletins published by the Department of Agriculture in Washington. They will list your name for that, but not for all the bulletins. Then when you see in the bulletin one listed that interests you, write to the Division of Publications, Department of Agriculture, Washington, D. C., and ask for it, and they will send you any farmers' bulletin you want without cost.

Don't Think You Know It All

DEVOTING the more leisure time of winter to the study of books and bulletins, you will be prepared beforehand to so manage the next season as to increase the income from your farming, and every year can learn more and more, for the stations are annually learning more.

Then never think that you know it all, for no one does. If any one knew all about farming there would be no need for the experiment stations, for the very fact that hundreds of trained men in these stations are devoting their lives to the study of every question affecting the farmer's business proves that the wisest understand that no one yet knows all there is to learn about farming.

There has been a great evolution in agriculture and in farming since the establishment of the experiment stations, but it is only a beginning, and the future success of the farmers will very largely depend on the use they make of the discoveries made by their stations.

We are at the very beginning of a vast wave of farming improvement in the South. Much has been done, but the future depends on constant study not only by the stations but by the farmers, for the farmer in this day who does not study is going to be left by the procession, and will continue to scratch over poor land because he has not studied the economical methods that would have made it rich and productive.

In short, the man who wants to make more money from his farm must be a student, and must learn what other men have discovered. He must study books and bulletins and let the moon shine as it pleases, for he cannot learn anything from the moon about farming, while he can learn a great deal from the printed page.