

Garden and Fruit

By L. O. WILLIAMS, University Place.

Tree Planting.

The season for tree planting is again at hand. The time when everybody has the fever for planting. Virtually there seems to be no "closed season" for planting nowadays, since there is hardly a month in the year but what some varieties of trees and of certain forms may be safely planted. We have been accustomed of later years to see the tree wagons carrying great large trees—one or two at a time—from the forest to the planting ground during the winter. This is the best season of the year for such heavy planting; but for the smaller trees, or what are known as nursery trees, the spring time is the best season of the year for their planting.

One sees so many trees being planted each spring that the wonder is often expressed, "What becomes of all the trees? Why does not the land become overrun with trees?"

These questions are more easily disposed of by saying that more than two-thirds of the trees planted each year never arrive at a stage of usefulness. I use the above estimates advisedly, and I believe they are conservative.

Some horticultural authorities place the per cent of practical loss of trees planted much higher than this. Professor Bailey of Cornell university, who is recognized as one of our foremost authorities in horticulture, in discussing this question a few years ago placed the per cent of loss at about 75. I do not remember the exact figures. Why is this heavy loss? Why this large per cent of loss and waste?

That it is largely waste is due to the fact that the greatest cause of loss is because of the carelessness of the planter. I think that we may safely place the loss caused by careless planters at fully one-half of the total loss. Lack of proper care for the trees after they reach the planter, such as exposure of the roots to sun or wind before planting, the neglect to place the roots in proper shape and soil; the failure to cut back half or more of the last year's growth of top; the neglect through the summer to cultivate or mulch the newly planted trees, or to water them during critical times of drought; all these and other minor causes combine to produce this heavy loss.

Other causes of loss are chargeable largely to the nurserymen and agents who grow and sell the trees to the planter. Trees are often badly handicapped in their struggle for life at transplanting because of a poor root system, as developed in the nursery, or because of "stubbing" the roots in digging the trees. Again, trees are often injured in the nursery by the winter just previous to their removal. The trees that are thus injured in the nursery should never be sent out and are not knowingly sold by any honest nurseryman.

The Agent's Share of Blame.

Then there is the tree agent, who sells and delivers the trees, who should be held responsible for a share of the loss. His first and greatest fault is in selling you stock that is not hardy or otherwise adapted to your soil and climate, and his second point for indictment is in his careless method of delivery, including the baling or boxing of the trees at the nursery. The agent also is usually an impractical fellow who will give advice for caring for the trees that is unsound. His system of deliveries in the fall with the heeling in of the trees over winter are often prolific causes of failure. Again, the agent is often to blame for the carelessness of the planter. It comes about in this way: The planter gives the agent an order for trees at a price that is generally double what they should be sold for at the nursery; the trees are delivered, the planter pays the bill; the size of the bale of trees and the amount of money required to pay for them being so out of proportion, the planter begins to feel that he is beaten. He then becomes mad or indifferent towards the trees, loses faith in their growing, kicks them aside for a while, and then when the planting is done it is with such indifference as to preclude a final failure. And the moral teaching of this experience with the agent should be to send the planter direct to the nursery for his trees.

How and When to Plant.

And now I come to what I had in mind at first—of telling you how and when to plant trees. It often seems superfluous to the practical tree planter to give specific directions for planting trees, for we reason that anyone who knows enough to plant a hill of beans or corn should have common sense enough to plant a tree rightly. There is, however, an evi-

dent lack of good tree sense, as I would call it, on the part of amateur planters. For their benefit I would say: treat the tree you are planting with as much consideration as you would an animal. Look upon it as something that has real life and energy—a being that is sensitive to kindness and careful treatment. Remember, too, that the roots of a tree are much like a fish, whose natural element is water. These roots then are as sensitive to dry air as a fish—they would if they could jump around like a fish does when thrown out of the water in their efforts to get back to their natural element.

They will, it is true, bear more or less exposure to air, but the more nearly they are free from this exposure the nearer they are to a successful issue in transplanting. One of the best and most practical ways of preventing exposure of the tree roots during the planting operation is to cover them with a coating of mud. This is called "puddling" or "dopeing," and consists of plunging the roots into a barrel or hole half filled with a mixture of earth and water. The next important factor in successful planting is in getting the roots well placed in a good, mellow soil, and with water enough thrown around them to thoroughly settle the soil about the roots, and also to furnish the needed moisture for starting the roots into a new growth.

If the soil is already naturally moist water may be omitted and the earth placed around the roots well by shaking the tree and pressing firmly with the feet.

All broken or bruised roots should be removed by a fresh cutting with a sharp knife before planting, and the tops should be cut back partially so as to establish a better balance of top and root. The after-care of newly planted trees must be as consistent as with your corn or potatoes. Keep the weeds down and the soil loose on the surface by good cultivation or mulching.

Potato Improvement.

The potato is our great staple vegetable. It is to our tables what corn is to the farmers' stock yard—a great staple food. We need to pay more attention to the selection of seed and to the improvement of the potato in general. Our corn improvers' association should have a complimentary association for the improvement of the potato. At present there are but a few individuals who are making any special study along this line. The majority of our potato growers are agreed as to the importance of selecting good seed, and of the need for a "change" of seed each year. Just now our attention is turned to the northern grown potatoes for our spring planting. We believe that it pays to send to Minnesota or the Dakotas if necessary to secure new seed at least every two years. Nebraska, however, has a varied enough soil and one well enough adapted to potato growing, so that we need not send outside of our own state to secure a change of seed. The north and northwestern part of our state has a soil peculiarly adapted to the potato, and we believe our growers in the south and east sections of the state could do well to purchase their seed from the growers of the former sections.

The great concern of the potato growers should be to secure good, clean seed, free from scab, and also to have the tubers of good form and size. If such seed can be grown within our own borders, other things being equal, we should patronize our "home industries."

The Formalin Treatment.

Our potato growers can also do much toward improving their potatoes by use of the formalin treatment of the seed. Formalin is a drug that is calculated to destroy all germs of the scab or other fungus diseases that tend to injure this crop.

A pint of this fluid, as obtained from the druggist, mixed with twenty-five gallons of water, is sufficient to cleanse enough seed for two or three acres of potatoes. Soak the uncut tubers in this solution for two hours, then dry them and cut up into sections for planting.

Care must be had in handling this drug, as it is a rank poison. Potatoes that have been treated to it will, of course, be unfit for the table. A change of soil is quite as important as a change of seed. Land that has produced two or more crops of potatoes in succession will tend to induce scab, and no amount of formalin will stop it. Change of soil is then needed.

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Selecting Seed Potatoes.

The importance of selecting good seed is well set forth in the following article taken from Wallace's Farmer:

It will pay any farmer to watch his potatoes carefully during the growing season, and particularly in the fall. If he does, he will find that a hill here and there often shows wonderful blight resistance; while hills around are affected with both early and late blight, he will find an occasional hill that seems to be blight-proof. Mark such hills and take your seed from them the next year. Although we grow potatoes only for use on the farm, we have watched this for some time, and notice a recent report from the Ohio experiment station which should be interesting to every man who grows potatoes, whether in a large way or in a small way.

In 1907 Mr. C. W. Waid, of that station, selected the ten best hills out of one hundred, and from this stock he has grown three crops, also selecting seed from another hundred hills sorted in bulk at the same time. The average yield of the three plots the seed of which was hill selected is 25 per cent greater than from the seed not hill selected, although the seed in the latter case was carefully selected from the bulk amount. In other words, by rejecting nine hills out of ten and planting the ten best in a hundred he has increased his crop 25 per cent. Any farmer can do that, and in a short time have seed potatoes to sell to his neighbors at a good round price. Mr. Waid noticed that in one case seed from selected hills yielded 40 per cent more than from the ordinary stock simply because they did not blight as the others did.

All the labor that was involved was simply to go to the fields before the vines died, mark the ones that were most resistant, and dig these hills separately for seed. It will pay the farmer who raises potatoes only for home use to do this, and it is certainly exceedingly important for the man who grows potatoes for sale. Selecting from the hill or from the field often makes the difference between profit and loss, success and failure.

The Worth of the Potato Eye.

This article we copy from Wallace's Farmer and we know the writer to be a very practical and studious potato grower; to raise a crop of potatoes from his own seed every year and make it pay one must study the nature of the plant. He must gather knowledge from experimentation in the field. It is well to keep a record, because he will learn from his mistakes as well as from his successes. It has been supposed that the reasons why the eyes from the points of the potato are more easily infected into growth is because they are more perfectly matured. I regard this as impossible, as they are the youngest of the eyes. It seems more likely that the cause is that the extremity of the potato is not so ripe as the root, and consequently less able to resist the decomposing influence of light, air, and moisture. The potato must decompose before it can reproduce. The youngest potato eye on the bud end, being less perfectly organized, decays soonest, and consequently grows earliest and with the greatest vigor. The eyes at

the extremity of the potato produce the earliest crop, and those who wish early potatoes should take advantage of this. In one experiment I conducted with two varieties of potatoes, the first variety yielded 217 pounds of potatoes when planted with seed from the bud end, while when planted with seed from the seed end they yielded only 170 pounds. With the second variety, which was Early Ohio, I got a yield of 270 pounds from seed of the bud end and 177 pounds from seed from the seed end.

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PERSONALITIES.

Chief Justice Fuller apparently wishes it to be known that he has no intention of resigning in order to make room for Mr. Taft. The chief justice recently gave a dinner, at which both the president and Mr. Taft were present. Mr. Fuller showed his guests a new portrait of himself and remarked that it made him look young. "Not a day younger than the original," said Mr. Taft, gracefully. "Thank you," said the chief justice, adding with what looked like just a trifle of emphasis: "I never felt better in my life."

Senator Platt was recently asked by Senator Carter of Montana as to how he stood in reference to the reception of Reed Smoot, the mormon senator. Senator Platt narrowed his eyes in an appreciative, crafty glance and replied: "To tell the truth, I was just waiting to salute our colleague from Utah, for I tell you, Tom Carter, it's my private opinion that it takes a mighty smart man to be a mormon—without complications."

Count Bellestrem, the president of the reichstag, is one of the most influential men in the dominion of the kaiser. He has been spoken of as the "Uncle Joe Cannon" of Germany. Well liked by all classes, he is thoroughly admired for his brilliant success as a politician.

Some people have imagined they heard Opportunity knocking and have opened the door only to let in trouble.

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