

BOTANY FOR JUNE.

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The "weeding" season is now here. Through long experience the average farmer knows a weed; but he knows it in a negative way. He simply knows it is not one of his cultivated plants.

The farmers of twenty years hence are now in school. May we teach them something about weeds in a positive way?

In early June many baby weeds are just coming up. Others have been growing lustily since March. Still more will come later. How does it happen that all do not come at the same time? If all did come simultaneously, would each have so good a chance to live as under the present order? These habits of season, as well as habits of locality, are worth studying.

Every class of plants suggests a corresponding class of people. Have you ever thought of that? In the plant kingdom are thieves, robbers, monopolists, social strugglers; the meek and the aggressive; the selfish and, one is half tempted to suspect, the unselfish. Unselfishness, however, is only apparent. Are not these characteristics intensely human? Can you think of a human trait that is not duplicated in plant life?

Weeds are monopolists. They are also robbers. They try to crowd out the weaker members of their society and take complete possession of the field. They are extremely aggressive and persistent in their attempts, and are too often successful.

But let us look at some of these pests and how they proceed to carry out their purpose. As soon as growth begins in the spring one will find the garden green with dandelions, daisies, mouse-ear chickweed, yarrow, clover and buttercups. The clover more than pays its way by adding fertility to the soil. If, however, one wishes to have the ground for some other crop, clover is unwelcome. But how is it that these weeds are so large at the end of March, when the ground has not been warm enough to germinate seeds? Are any of our weeds perennial? Evidently they are.

In some of our text books you will find these early weeds classed as perennials, and others as winter annuals. A winter annual is one that scatters its seed in the summer; and this germinates the same autumn, but does not complete its growth until the following spring. Early in spring, therefore, a winter annual is ready to grow, for its start is already made. Perennials, too, grow early, for

they have a reserve supply of food stored in the root or elsewhere, which is used for quick growth. True annuals, on the other hand, are not weeds of early spring. Warm weather must come before the seeds, which have lain in the ground all winter, can germinate.

Children would like to make a list of all the weeds they can find. The value of the exercise is increased by having them classify their list as suggested in the foregoing. Have them also write remarks on the relative abundance of these weeds. Older children could observe which spread most rapidly, and how they spread. In the school garden or home garden, they could learn how to control these pests.

May I suggest one or two experiments for garden work? Taking equal areas of ground — say one square yard — where couch grass is troublesome, try (1) cutting off the grass with a hoe in dry weather, (2) in wet weather, (3) pulling up by the roots and leaving it on the ground, and (4) pulling up by the roots and burning. As soon as each plot is again green, repeat the operation. Continue it even a third or fourth time if necessary. Keep a record of the dates of each weeding. Also note how many minutes it required to do the work in each case. Remembering that time is worth something, which do you consider the most profitable way of clearing land of couch grass? In autumn after the crops are gathered, experiments (1) and (2) could be repeated by digging instead of hoeing. Digging would, on a small scale, correspond with plowing. Which seems better, deep or shallow digging?

Similar experiments should be tried with other weeds. Where the weed persistently grows again try to find out how it manages to do so. With couch grass, especially, examine the underground root stalks to see how hoeing might spread instead of destroy the plant.

As the season advances try to learn the names and the habits of all weeds as they appear. Keep dates of their first appearance, their rapidity of growth, time of blooming, maturing of seed, etc. Make drawings of each weed at different stages in its growth. Collect and label the seeds. What should you do if you found these same seeds among the garden seeds that you buy next spring? A small magnifying glass known as a linen tester would help greatly in studying seeds.

Following are a few of our commonest weeds that every child should know. Dandelion, Fall-