

THE FARMER'S ADVOCATE.

JUNE 29, 1911

with large, deep fountains; under full in front, full and well up behind, of large size and capacity; teats well apart, squarely placed, and of good size; skin yellow in ear and end of tail, at base of horns, on udder, and body generally; hoofs amber-colored.

THE FARM.

June Bugs Breeding in the Pastures.

Editor "The Farmer's Advocate":

Will you permit me to thank your correspondent, "Observer," for the information which he has kindly published in your issue of June 15th, in reference to the outbreak of June beetles in his district in East Middlesex.

He asks me to explain to your readers why the beetles have a preference for certain trees, such as ash, butternut, elm, etc., whereas other trees, such as maple and apple, are practically untouched. I am afraid that the present limitation of human knowledge will not permit us to explain all the food preferences of insects. That there are these preferences, is a matter of common observation; for example, certain caterpillars are only found on certain species of plants, while others are general feeders. Certain insects are parasitic on certain insects, and are only found affecting those insects. One can only say that it is all a matter of taste!

In reference to "Observer's" remarks that many people are alarmed lest the land will be devastated with the larvae next year, it is not likely that the injuries by the white grubs will be abnormally severe next year, but unless something unforeseen happens, they will certainly be serious in 1913. The white grubs are usually most injurious the second and third years of their growth. As I have previously pointed out, I attribute the great prevalence of white grubs in Middlesex to the large areas of permanent grass and pasture land which serve as permanent breeding places for these insects, and will continue to do so unless cultural methods are adopted to combat these insects.

C. GORDON HEWITT,
Dominion Entomologist.

A small amount of good-flavored, well-seasoned hay is much more effective in securing large yields of milk, or heavy gains in flesh, than is a large amount of coarse, rough hay that is largely indigestible. Hay cut soon after coming into blossom, cured largely in the cock—thus saving all of the leaves and flavor-giving elements—and stored in well-protected stacks or in barns, will have at least one-third greater feeding value than hay over-ripened and poorly cured.—[Andrew Boss, University of Minnesota.]

Green Manuring.

Four of the advantages of green-manuring given by Prof. Marshall, of Colorado Agricultural College, are:

1. Increases soil fertility by the large amount of organic matter added.
2. Increases the water-holding capacity of the soil.
3. Utilizes soluble plant food that would otherwise escape from the soil.
4. Brings plant food from the lower soil to the surface.

These advantages are all very important, and should be impressed on the minds of all agriculturists. It is one of the easiest, quickest and most efficient methods of keeping up and increasing the productiveness of the soil. It should, however, be practiced in moderation, as it is possible that the soil might be injured if an excess of green organic matter was incorporated in it. This excess might cause a slight acidity in the soil which would be detrimental to plant growth, but, if applied in reasonable quantity, it is one of the best methods of adding humus to the soil.

Light in Relation to Tree Growth.

The United States Secretary of Agriculture has just issued Bulletin 92 of the Forest Service, on "Light in Relation to Tree Growth." The bulletin is designed to show the benefits derived by the tree by light from all angles, particularly that reflected on the roots. In introducing the subject, the bulletin states: "Light is indispensable from the life and growth of trees. In common with other green plants, a tree, in order to live, must produce organic substance for the building of new tissues. Certain low forms of vegetable life, such as bacteria and fungi, do not require light. They exist by absorbing organic substance from other living bodies; but the higher substance from other living bodies; but the higher forms of plants manufacture their own organic material by extracting carbon from the air. The green coloring matter, absorb from the air carbon dioxide, and give off a nearly equal volume of oxygen. The carbon dioxide is then broken up into its elements and converted into organic substances which are used in building up new tissues. Light also influences transpiration, and consequently the metabolism of green plants. It influences largely the structure, the form and the color of the leaf, and the form of the stem and the crown of the tree. In the forest it largely determines the height growth of trees, the rate at which stands thin out with age, the progress of natural pruning, the character of the living ground cover, the vigor of young tree growth, the existence of several-storied forest, and many other phenomena upon which the management of forests depends. A thorough understanding,

therefore, of the effect of light upon the life of individual trees, and especially on trees in the forest, and a knowledge of the methods by which the extent of this effect can be determined, are essential for successful cultural operations in the forest."

A Substitute for Hay.

From present indications, the hay crop is likely to be comparatively light, taking the country over, and, as a consequence, many farmers will likely be looking for a substitute to use for fodder. For this, Andrew Boss, Superintendent of the University Farm at St. Paul, Minn., recommends the use of field corn sown in drills from 36 to 44 inches apart, and sowing 30 to 40 pounds of seed per acre. It may be planted as late as July 1st, and a good crop of fodder obtained under suitable moisture conditions. Earlier planting is preferred, but the actual yield of the hay crop is not always known until quite late. The two crops are very nearly alike in digestible constituents, the hay being a trifle richer; but what the corn lacks in composition is more than made up in the added succulency which it gives the ration, and the increase in yield per acre over that of hay gives it a decided advantage. On farms where hay is scarce, this method is worthy of a trial.

Conserving Soil Moisture.

To conserve soil moisture for next year, early plowing should be followed. In Oklahoma, in a five-year test, land plowed about the middle of July produced 27 bushels of wheat per acre; plowed in August, 24 bushels, and plowed about the middle of September, 22 bushels per acre. Get the plow to work as soon as possible, and harrow to get a fine mulch on top. This prevents a considerable loss of moisture during the hot, dry days of summer and fall, if the soil was left unstirred and weeds were allowed to grow, as well

What had almost been regarded as a barren non-productive hillside on a farm owned by Andrew Dodds, Middlesex Co., Ont., on June 8th showed a thick growth, three feet in length, of alfalfa, the third season. The following week it was cut, and on the two acres there were 115 good-sized cocks of well-cured alfalfa hay ready for the barn and feeding. On the brow of the hill, where the poorest crops would ordinarily be expected, the alfalfa seemed best. It was a striking example of the value of intelligent change in cropping methods.

That a silo will increase the producing capacity of a farm by 10 to 25 per cent., is the conclusion of Geo. P. Grout, of Minnesota University Farm.



Old-fashioned Rural Home, Essex Co., Ont.

The house, once Goldsmith post office, has since been replaced by a new one.