

FARM.

Forestry.

BY AVONBANK.

In regard to windbreaks, there has been very little done in this direction. There are a few farmers who have planted shade trees on the roadsides, but there are a great many, probably 50 per cent. of them, who have given no attention whatever to tree planting even in the smallest degree. Some lines of fine maple are to be seen, but they are not many. Soft maple is used altogether in some sections, because most convenient to be had and surer to live. As a general rule, they are in a thrifty condition where any care has been bestowed on them. The greatest cause of loss, more especially during the last two seasons, is by drought. The ground has become so hard and dry that a great many trees have died. Mulching with sawdust or coarse straw manure has been resorted to, and proven very efficient in retaining the moisture about the roots. Planting for ornament alone has not been done to any extent, ornamental trees being thought too expensive. Every planter seems to have a different method both in planting and pruning, and until information in forestry is more generally diffused, results not satisfactory may be expected.

To my knowledge there have been no plantations of young trees of any size set out as yet, but it is my opinion that it would be attended by very good results if done here. There are many places on most farms that do not yield a good return, which, if planted with trees, would in a few years become a source of profit to the owner for timber, as well as protection to stock and grain, and an ornament to the farm. It is a deplorable fact that many of our farmers left themselves so scant of woods that they have to buy from those who have been more careful a supply of fire wood, and if they are building, timber for the same, and as time goes on more and more are finding themselves in this position. In some cases the cattle are fenced out from small patches of forest, and generally with good results, more especially in hard wood or on high land; on low swamp or soft wood the results are not so good, as it is generally the poorer species of timber that gain the ascendancy. It seems to be reasonable to desire as heavy a crop of timber off a given piece of land as it is to desire a heavy crop of grain. The method to obtain this is by excluding cattle: there are groves of small sugar maple in Ontario, which were fenced from cattle some twenty-five years ago, yielding an annual supply of sap for sugar-making purposes; in fact, they yield more sap with less injury to the tree than the larger ones.

But, as a rule, I am sorry to say that there are many very thin woods which are hardly worth leaving, which if fenced would soon become thick and are not. It would seem in this, as in some other things, people are very short sighted.

In regard to climate, in the east every one is ready to admit that there has been a decided change during the last twenty years, during which the country has been denuded of much of the forest. The older men tell us of the time when it was not known for the streams to be dry in midsummer, when no such thunderstorms as we have now were endured, when they could grow from thirty to forty bushels of fall wheat per acre, while we are only able to harvest from fifteen to twenty-five. Some will say that drainage has the effect of drying up the streams, and that the land is becoming exhausted so that it will not produce so much; but, in the case of the wheat on virgin soil, to-day the results are the same if not worse than on older lands.

There can not be any doubt but that the forest has a very salutary influence over the rainfall, as it is seen that there is a more general diffusion of moisture on areas which are covered with forest than where there is none, as here one shower of rain follows another over the same tract, leaving portions near by parched by drought.

A wide circulation of literature bearing on the subject, and instruction to a limited extent in the rural public schools, would be good methods of promoting the information required, while exemption of taxes or part on land under good native forest, or on good plantations, would encourage many to give it more attention. Our government is doing a good work in this direction, if it would continue a step further and furnish seedlings, and directions how to care for, to all who would embrace the opportunity. I believe that there are many eastern farmers who have laid out enough money in buying large trees—for instance, "Norway spruce"—from nurseries, had it been invested in seedlings and cultivated in a nursery on their own farm, to have given stronger, more thrifty trees, besides a great many more in number, so that many who have a few trees might have had a line of trees that would have been of general utility as a windbreak and ornament. Farmers in many parts of Ontario, and probably other parts of the Dominion, are adopting the honey locust hedge as a barrier against stock. And while one of the greatest obstacles in the way of planting lines of evergreens is that the stock destroy them before they grow to a sufficient size to be out of reach, and as the hedge put up by the Ontario Hedge Company requires to be protected and cultivated for four years, would not such be an excellent opportunity to plant a line of small evergreens for the purpose of a windbreak. It is my opinion that county and township councils should do more in the way of promoting the planting of trees and the preservation of the native forest than they do. Our own council do nothing whatever in this direction.

Weeds.

BY J. HOYES PANTON, M. A., F. G. S.
ASCLEPIADACEÆ (Milkweed Family).

The plants in this family have a milky juice, which exudes from any portion broken or torn.

fig. 32
Asclepias Cornuti (Common Milkweed). Fig. 32.

This weed frequently grows in groups by the wayside; sometimes appears in fields and becomes quite difficult to overcome. The stem is 3 to 4 feet high, bears oval leaves 5 to 7 inches long, arranged in pairs; the purplish flowers are in clusters at the axis of the leaves, and from them arise very peculiar-looking pods, filled with seeds imbedded in a cotton-like substance. When any part of the plant is cut, a thick, milky juice passes out. If well established in a fertile soil, its long, deep perennial roots are difficult to kill. In such cases continual thorough cultivation becomes necessary.

A. tuberosa (Butterfly-weed).

This species is very attractive, and by some has been introduced into gardens. It is quite common along the railway south of Galt and in the Niagara district. The stem is erect, very leafy, branching at the summit; leaves somewhat linear, and with little or no stalk. The flowers are a bright orange, and the plant has a beautiful appearance when in full bloom. Though sometimes along the wayside and in the fields, yet it is not viewed as troublesome a weed as the former species.



fig. 33

PLANTAGINACEÆ (Plantain Family).

The leaves of plants in this group have usually well-defined veins.

Plantago major (Common Plantain).

This common plant, growing about the back doors and in the barnyards, can scarcely be considered a serious weed. It is readily known by its large, roundish leaves lying close to the ground, and with well-marked veins. About the time it flowers it sends up a stalk about eight inches high, along which the minute flowers are arranged in the form of a spike.

P. lanceolata (Rib-grass). Fig. 33.

In this the leaves are much longer and narrower; the flower spike short, thick and dense. The leaves are 3 to 5-ribbed. The seed of this plant is often sown in grass mixtures, and by some has been called sheep-grass; but escaping from the fields it has found its way to places where it is not desired. Though both these species are perennial, they are seldom troublesome where thorough cultivation is practised.

CHENOPODIACEÆ (Goose-foot Family).

Chenopodium album (Lambs' Quarters).

This very common weed around old dwellings and neglected places is well known by its leaves, on the under surface, presenting a mealy-like appearance. This annual produces a great many seeds, but seldom proves a nuisance except to the careless.



fig. 34

Blitum capitatum (Strawberry Blite).

Few seem to know this weed by name, though comparatively common. The stem is about a foot long, and the leaves somewhat triangular. When ripe, the fruit appears in clusters along the stem something like strawberries arranged along the axis. However, an examination soon shows very little resemblance to that berry. A reddish juice can be pressed out of the fruit; this has been used by the Indians for painting themselves and staining basket work. It is seldom that complaint is made against this plant.

AMARANTHACEÆ (Amaranth Family).

Some very interesting and attractive plants are found in this order, such as cockscomb, iresine, prince's feather and globe amaranth, but we notice it for one large, unsightly coarse annual.

Amaranthus retroflexus (Common Pigweed). Fig. 34.

This is the true pigweed, a name often improperly applied to *lambs' quarters*. This coarse plant grows 2 to 5 feet high and branches considerably; the greenish flowers are unattractive, appearing in the form of spikes crowded in a stiff panicle or dense clusters; the root presents a reddish appearance. This plant is so coarse that it is readily seen in a field, and should at once be pulled. It seldom finds its way where careful farming is observed, and can readily be put under by a little industry and care. It flourishes in rich spots, and sometimes has such a firm roothold that it tries one's strength to pull it up.