

FARM.

The Swallow.

Of the five or six varieties of swallows which inhabit Ontario, perhaps the most worthy of note are the Barn Swallow, the Purple Martin and the Chimney Swift. The last named never alights on the ground, but in other respects it very closely resembles the swallow.

To the swallows we are indebted to a great extent for the comparatively small number of winged insects, which in large numbers would be a considerable nuisance and torture to man and beast. Since we find these birds in the open and cultivated parts of the country, it is safe to infer that they keep this territory free from the insect pest, for in the closely-wooded section or near the swamp, where the swallows are not seen, we encounter swarms of black flies, gnats, etc.

The clearing is the feeding-ground of the swallows. As long as flying insects are plentiful these are the chief food. Even when a cold wind has benumbed the flies, the swallow will find them on the ground where the vegetation is scarce or on sandy places. During the summer the female ants come out with the ammunition and intentions required to form new colonies. But as soon as they come to an open space the swallows fill their stomachs with "ant preparation," and the new colonies of ants never materialize. Those ants which escape and shed their wings are very likely to become food for the swallows on the ground. Here the Purple Martin makes himself most useful.

The Swift, though it does not follow the insects on the ground, is very valuable in destroying them in the air. While the Swallows gather their food in the clear, hot day, the Swift chooses early morning and late evening as its time for eating. The night-hawk and Whippoorwill do their part of the work in the night. Thus, the whole twenty-four hours is under the watchful eyes of these insect-eaters—all belonging to the Swallow tribe.

The Swallow builds a nest of mud, and lines it with soft feathers. The nest is stuck to the side of a rafter or under the eaves of a building. The Swift's nest is built of small sticks, which are glued together and fastened to the inside of a chimney, or on the inside wall of a wood-shed or driving-shed. How often we see an unseemly mass of straw, grass and feathers piled on top of one of these nests! This tells us that the owner of the nest has been driven out, and the conqueror—the English sparrow—has taken possession of the home. Sparrows and cats are the chief enemies of the swallows, and the swallows are worthy of our protection. We can help them a great deal by destroying all the sparrows, sparrows' nests and eggs which we see. One trap, well handled, will destroy more mice and rats than a whole barn full of cats; so good-bye "Mary Ann," or "Tommy Ann," as the case may be. LOCHIEL.

Grey Co., Ont.

An Institute Trip in Western Nova Scotia.

Having received a pressing invitation from the Secretary of the N. S. Farmers' Association to take a short Institute trip in the Western end of this Province, and having never had an opportunity to visit that part of Nova Scotia, I boarded the train on Saturday afternoon for Truro.

For a few miles after leaving the busy manufacturing town of Amherst, the railway runs along the edge of the rich dyked marshes made by the alluvial deposit from the tides of the Bay of Fundy, then the country gradually becomes more hilly, and covered with quite a thick growth of undergrowth (what you in Ontario are accustomed to call "scrub bush"). We realize after a while that we are crossing a range of mountains, the Cobequid, and about Wentworth and Folley the scenery is wild and grand; Wentworth valley looks to be hundreds of feet below us, as we speed by, and here, right on top of this range of mountains, is a beautiful little lake (Folley Lake), and now we find ourselves descending the mountains, the train gaining speed at every revolution of the wheels, and soon we are again in sight of dyked marshes and the pretty town of Truro—the Athens of Nova Scotia. Here is the new Agricultural College, situated on Bible Hill, overlooking the town, and the Normal School near the center of the town.

Being obliged to wait until Monday morning for a train over the "Midland" Railway, I took a Sunday morning walk through Victoria Park, one of the most beautiful spots for a park that one could possibly imagine. A stream flows down a mountain gorge, supplying waterfalls, rapids and miniature lakes, alongside of which roadways have been made and several shady nooks fitted with band-stands and rustic seats.

On Monday we went over the Midland Railway, through a fairly good farming country, to Windsor, on the Dominion Atlantic Railway, and now began the ride through the famous Annapolis Valley—the garden of Nova Scotia. It is said that a railway always passes through the poorest section of a country, but if "The Valley" is any prettier or more fertile in any other section, it must indeed have claim to be called the apple orchard of the world.

Through the valley the grass crop must be a bumper one, while grain and most of the small fruit needed for consumption. Some of the earliest varieties of apples had been injured by a frost on the 9th of June, but for the most part the prospects are good for an abundant

crop. As we travel westward and get beyond "The Valley," we find the surface more hilly and rocky (granite boulders), but right among the boulders the apple trees grow splendidly, and where small fruit is cultivated it gives splendid returns. Along the western and southern shore the people are generally engaged in fishing, and as they produce little or no farm products there is a ready cash market for all that the farmers in that can produce.

My travelling companion on this trip was Mr. T. H. Mason, of Straffordville, Ontario, and while neither of us ever felt envious of the lot of our brother farmers in Shelburne and Queen's counties, we did often remark about the stalwart and intelligent men and rosy maidens of this end of the Province. Mr. Mason is a man of keen observation, and talks sense in his addresses, without shooting over our heads so much as some of the institute speakers from Ontario do; in other words, he sizes up the conditions of the men he is talking with. C. H. BLACK.

Amherst, July 4th, 1905.

Lime Experiments in Rhode Island.

We print below some points from the syllabus of an illustrated lecture on acid soils, by H. J. Wheeler, Ph. D., Director of the Rhode Island Experiment Station:

The Rhode Island Station has given more attention than any other to the subject of acidity in soil and its effects on growing crops of various kinds. Acid soils are widely distributed everywhere. In one of the French departments clover could not be grown, and agriculture was at a low ebb. After liming, clover succeeded, the cattle industry thrived, and prosperity in farming was assured. Acid soils are found generally in New England, and cognizance of the fact is important. Anyone can test his soil for acidity by means of the blue litmus paper sold at drug stores. The soil to be tested should be moistened with water enough to make a thick paste, and should then be allowed to stand half an hour or longer. Then open it with a knife blade, and insert a piece of litmus paper half its length. Do not handle the ends of the paper before putting it in the soil, for the acid in the moist fingers may redden the paper. In an hour or so remove the paper without tearing it. Dip it in water to remove the soil adhering. If a distinct red color has taken place of the blue it may be concluded that the soil needs liming. In case of red soils it is often better to press the paper against the soil than to have it surround it. If in such case the paper turns red it shows that the soil is acid. In soils of a vegetable nature only a good test may be made with ammonia water. To make this, take two glasses, place a level tablespoonful of soil in each, and add water until the glasses are about two-thirds full. Now add to one of the glasses a tablespoonful of dilute ammonia water. Stir each glass with a different spoon. If, after standing some hours, the liquid in the one having the ammonia becomes dark brown or black, it shows that acid humus is present and that liming will be useful.

Wood ashes are also useful in correcting acidity. Experiments with various crops showed that, while there was no lack of plant food, the acidity of the soil made the crops poor, while lime restored them. Nitrogen in various forms was used, and, as before, the sulphate of ammonia poisoned the crop when no lime was used, while it greatly increased it after liming, showing that the acidity of the soil had a great influence on the assimilation of nitrogen by crops. In experiments with potatoes, it was found that acid conditions in the soil were unfavorable to the fungus that causes the scab, and that, while an application of lime or ashes would sweeten the soil and improve the crop, it also increased the tendency to scab. On the other hand, the application of lime prevents damage from the fungus that causes the club-root in cabbages. In using lime on grass plots, it was found that a better effect was produced where the lime was well worked into the soil than where it was merely used as a top dressing. Acid soils have been found to be the rule in Rhode Island, and occur on light uplands as well as on heavy and moist soils. In an acid soil it was shown that, while there may be a sufficient percentage of phosphates present for the plants, it may appear to be deficient, while liming will bring it into use. The growth of different plants varied greatly on acid soils, some not being effected seriously by the acidity, while others were so. Muskmelons fail on acid soils, while the watermelon seems to prefer a sour soil. Cabbage is helped by liming on such soils. Alfalfa is not suited to acid conditions in the soil, and lime has often a wonderful effect on its growth. Red-top grass thrives on acid soils, while timothy is helped by lime. While crimson clover will grow on a soil slightly acid, it is helped greatly by liming. Sweetening the soil with lime is very important to the onion crop. Lime also promotes the growth of the pumpkin on acid lands. Asparagus showed finely the effects of lime, but cranberries do not need lime. Quince trees were injured by lime, as also were Norway spruces, but lime is an advantage to apple trees. Sandy soil should not be heavily limed, half a ton per acre

being enough, while heavy soils need twice as much. It is advised to harrow in the lime at once, and lime should be applied after potatoes and not before.

The Nurse and the Farmer.

To the Editor "Farmer's Advocate":

Sir,—In your issue of June 29th I noticed an article written for the benefit of farmers in general, signed by "Nurse." I have read her letter, but I cannot be convinced by it that all Canadian farmers are as she states. If it were so we would be more fit for associates of the dumb brutes than for human beings. I can also claim the privilege of having some knowledge of farmers in different parts of Ontario, and I have also lived in the city, and as far as my experience goes, I find as much filth in the one as the other. I have yet to find the farmer who will walk straight into the parlor without cleaning the barnyard dirt off his boots, and, although it may be so, it is a rare thing to find an incubator in the kitchen. Of course, I will admit that farmers do not appear as neat and tidy as those of other occupations, but you must allow that some of the farmer's work is very dirty, and that it is almost impossible to get his boots perfectly clean. Does "Nurse" think that a farmer must change his clothes outside and appear as a clerk with collar and tie on, or be followed all over the house by his wife with a broom and dust-pan? Does she think that a man will find comfort in his home if that were the state of affairs? If a wife is so extravagant as to place a nice carpet where her husband has to step in his everyday life, well, let her take the blame, for it has no right there. If "Nurse" has happened in some dirty farm homes, I do not see why she should condemn all because of the few. My experience has been rather wide, and I have yet to find a farmer in whom I could find the faults as she describes them. FARMER.

Hastings Co., Ont.

Timothy and Oats Affected by Thrips.

To the Editor "Farmer's Advocate":

I am in receipt of your favor of the 14th enclosing stalks of timothy and of oats. I believe that both of these injuries are due to the same or a similar insect, a species of thrips, probably *Phloeothrips poaphagus*. The injury is known in timothy as "silver top," and is caused by minute insects attacking the base of the stem inside the sheath. In the oats the injury is caused by these same minute insects attacking the ovaries in unopened florets. This injury is intermittent, and very much worse in some seasons than others. I know of no remedy for it, except, perhaps, short rotation by which grass lands are plowed down at short intervals and the land used for other crops. The silver top in grasses is particularly noticed in meadows. It is exceptionally abundant this year both in timothy and June grass. Some of the heads of the oats had the stems severed. This is not the result of the attacks of the insects, and I can only surmise that it may have been caused by a very rapid succulent growth, due to the great heat and excessive rain just at the time the plants were heading out. There is no appearance of the tissues having been gnawed or punctured. The small insects seen by your correspondent were probably the thrips, which is just such an insect as he describes. The effect on the panicle of oats is to blast the flowers at the base, leaving them white and paper-like when it heads out, and, of course, dead without any grain. Occasionally, the same insect continues its attacks on the sheaths of florets higher up the panicle, but in that case little harm is done, beyond bleaching the coverings of the seed.

J. FLETCHER, Entomologist and Botanist.
Central Experimental Farm.

Says She Told the Truth.

To the Editor "Farmer's Advocate":

Sir,—Since reading the letters in reply to the open letter of "Nurse," I feel compelled to say something in vindication of the truth. "Nurse" deserves praise for her courage in exposing some of the disagreeable habits of ordinary people, for, the statements of "A Farmer's Wife" to the contrary notwithstanding, the faults complained of and many worse ones are only too common; in fact, households are too scarce where some of them are not in evidence. Most people try to hide such things from their neighbors, but they are generally known, though seldom mentioned. The statements of "Nurse" may be one-sided (women have their little shortcomings also, I take it), but they are, unfortunately, not exaggerated. I could mention cases of most of those mentioned. I do not contend that they are the common actions of the people referred to, but they are worse, because they are committed with the express purpose of annoying or punishing, as I have heard them say, their unfortunate and weaker companions, and this by men who call themselves and pass in the community as good Christians. But enough has been said; we all have our faults, which are glaring enough in other people's eyes. SIMCOE Co., Ont. A FARMER'S SON.