

heart and hand for work. More than this they need not. Let them awake and work and study. It is not all work, nor yet all study, that will make men of the right stamp. They must work intelligently and study with an earnest purpose of being benefited, and then they will become what they ought to be, the real men of a great Dominion and the world.

AMICUS.

Peterborough April 5th, 1869.

To the Editor of the Farmer's Advocate.

SALT AS A MANURE.

A valued correspondent writes as follows on this important subject:—I have tried salt on spring wheat at the rate of 2 bushels per acre, as manure. It ripened about one week earlier than that by the side of it that had no salt; I could not observe any other effect. Sowed it immediately after the drill.

I sowed salt last fall on fall wheat, and will also let you know the result. If salt will forward the ripening of fall wheat as much as it does of spring, we shall be able to raise the Saules wheat notwithstanding the midge, and not be compelled to grow those midge proof varieties that are neither hardy, do not yield well, or sell well in the market.

B. W.

HYDROPHOBIA.

To the Editor of the Farmer's Advocate.

MR. EDITOR:—I wish to offer you a few remarks upon the subject of Hydrophobia or dog-madness—The cause and the cure, or rather prevention.

The disease is not caused by the hot weather, the season, nor want of water, but is caused entirely by the small number of sluts!

Now where dogs wander free and without masters as in Turkey and Australia, the disease is entirely unknown. What makes the matter the worse in this country, is that our Governors tax the sluts double what they do the dogs, but the reverse should be adopted. The Farmers say one in ten should be obliged by lot to keep a slut, and that horrible disease would not occur. The other animals of the carnivorous or flesh eating kind, and who are born blind, are also subject to the disease if they are kept in confinement, as the Fox or Cat. The Duke of Richmond—one of our former Governors—was bitten by a tame fox, and died in consequence.

There is another fact which is unknown, which is, that sluts never become mad unless they are bitten by a mad dog.

Having stated to you the truth of the matter, I leave it for the consideration of your readers. Everything should be done to lessen the frequency of that horrible disease, and the remedy is easy and sure.

ALFRED HOLLOWAY, M. D.

To the Editor of the Farmer's Advocate.

Report of the Committee of the Council of Middlesex on Agriculture, at the Jan. Session of 1869.

Your committee conceiving it to be their duty to make some suggestions and report as may conduce to the benefit of agriculture, respectfully submit:

That we desire to record our satisfaction with the late amendments in the law for the protection of sheep.

We have much pleasure in reporting that the persevering efforts of Mr. W. Weld to establish an Agricultural Emporium and paper in this city, have already obtained a large measure of success and produced considerable advantage to the farmers of Ontario, and we confidently anticipate that it is now

established on a permanent basis and will be productive of great benefit in future.

As it has cost the enterprising proprietor a great amount of time and money to secure these results, we recommend that agricultural societies and farmers in general do support his paper, the "Farmer's Advocate," as we consider he is certainly deserving of encouragement.

HENRY ANDERSON,
Chairman.

To the Editor of the Farmer's Advocate.

WHEAT AND ITS ENEMIES.

Agriculture is the true basis of prosperity, the foundation upon which is built the superstructure of national greatness. When the earth yields good crops, and the land is filled with plenty, every branch of business receives an impetus; but in seasons of scarcity a corresponding depression ensues, and trade and commerce suffer from the agricultural short-comings.

Perhaps there is no subject of so much importance to the entire community, as that of the progress and increase of insects, destructive to cultivated crops, and more particularly to the wheat plant. The immense area of land under cultivation, and the great breadth of wheat sown annually, render it necessary that this matter should be better understood, and I now propose to offer a few remarks on what is undoubtedly a question of national importance.

INSECTS.

Nearly every insect undergoes three changes before it becomes perfect; from the egg to the larva, the larva to the chrysalis, the chrysalis to the perfect insect. Grubs are the larva of beetles, maggots the larva of two-winged flies; caterpillars the larva of butterflies, moths, &c. Insects are divided into orders, orders into sections, sections into families, families into genera; and genera into species or individuals.

1. *Coleoptera*: including the tribe of beetles, and is an order in which agriculturists are particularly interested. It contains the snout beetle, or Rhincophora—a very numerous family, and very destructive to wheat and corn.

2. *Orthoptera*: crickets, grasshoppers, locusts, earwigs, cockchafers, &c., &c., many of which are remarkably destructive to vegetation.

3. *Hemiptera*: comprises bugs, aphidæ, &c. The chinch bug is a noted member of this order; it also embraces many species of insects infesting fruit trees, forest trees, crops and garden vegetables.

4. *Lepidoptera*: moths, butterflies, &c., comprising the most beautiful individuals of the insect world. In this order will be found the *Zinea Granilla*, whose larva feeds upon grain; the bee moth, the apple-worm, the peach-worm, the palmer-worm and a host of others.

5. *Diptera*, or two-winged flies. Many of this species are eminently noxious and troublesome, such as bot-flies, grain-flies, mosquitoes, and more particularly to the farmer, the Hessian-fly and the wheat-midge.

THE HESSIAN FLY.

A common impression prevails that this remarkably destructive insect was introduced into America by the Hessian troops in their straw from Germany, during the year 1776 at which time it was first noticed at Long Island. Certainly it is an European insect and its ravages were felt and lamented in Europe many years before its first appearance in this country. Dr. Harris describes the Hessian fly as follows: head and thorax black, body tawny and covered with fine greyish hairs; wings blackish, tinged with yellow at the base, where they are very narrow, fringed with short hairs and rounded at the end. The body is about one-tenth of an inch in length and the wings expand about a quarter of an inch.

The Hessian fly lays her eggs, nearly thirty in number, upon the young leaves of wheat in May and September, and if the weather is warm, the eggs of the autumn brood are hatched within a week of the time they are laid.

THE WHEAT MIDGE.

This destructive insect has long been known in Europe, where in years past it attracted general attention in consequence of its ravages in Great Britain. It first appeared in America in 1820 in western Vermont, and in 1828, carried immense havoc into Scotland and England, and in Lower Canada and portions of the States. Since that time, it has made its appearance in almost every portion of the United States and Canada, committing dreadful ravages, and in some places causing the wheat crop to be almost entirely neglected. The pecuniary loss from this most destructive pest is absolutely incalculable. The wheat midge is a small orange colored fly, with delicate transparent wings and long slender legs; its length is about the tenth of an inch. In Canada the wheat midge appears during the latter part of June, and remains until the middle of August. It prefers low and sheltered places. It is most active at sunset; at twilight and during the night, it is chiefly occupied in depositing its eggs in the germ of the still undeveloped grain. *When the sheath or chaff of the grain is very selesious in its nature, the insect cannot puncture it!* a fact which is most important to bear in mind as a guide in the selection of varieties of wheat for seed. Having discovered a kernel, the chaff of which is soft, the female fly pierces it with her ovipositor, a slender tube resembling a fine hair. She then passes her eggs one after another through this tube, dropping them upon the surface of the embryo seed. About a week suffices to hatch the young maggots, and in three weeks they attain maturity. They feed upon the juices of the grain and dry it up. When full grown, the maggot reaches the ground and penetrates about half an inch below the surface, and here they remain in the maggot state until the following spring. In the month of May they become chrysalis, and remain so for two or three weeks, when they reach the surface of the ground, break their case and assume the form of the midge.

These are the most noted of the insect enemies of wheat. There are others, however, such as the *Weevil*—a snout beetle about an eighth of an inch in length, of a dull reddish brown color; the *Wolf*, or little grain moth, the *Agoumois Moth*, a four winged insect about three eighths of an inch long. These infect granaries, and are very destructive.

Next month I will send you a short article on Rust, Smut, and other diseases of the wheat plan
Yours, &c.

Ontario,

M. N.

We have long asked for communications, and are happy to find some of the most intelligent now aiding us. We thank Mr. M. for his valuable communication, and hope he may continue to favor us with an occasional article. No former article of any utility has been overlooked, but carefully attended to. We ask you still to favor us with communications.—[Ed.]

CHEVALIER BARLEY.

A correspondent writes to us concerning this barley, which we offer for sale for the first time this season. We hesitated to praise it too highly as we had not tested it, although we had been assured by others that its introduction would be a great acquisition to the country. We publish below, the experience of a practical farmer who has subjected it to the test.

"I will give you my experience of a trial