

BEE BOTANY AND ENTOMOLOGY.

OUR THIRD WAX DESTROYER.

THIS is the common meal worm, *Tenebrio molitor* (Fig. 1), and is very common about mills and grain bins containing meal, flour, etc. Many of our bee keepers have seen this beetle and the wire like grubs about their hives and bee houses, and some, like myself, have doubtless seen their comb ruined by these same grubs.

The full grown grub (Fig. 1) is smooth, cylindrical, a little more than one inch long, of a yellowish brown color, and resembles very closely the common wire worm, which is often so destructive to corn, potatoes, etc. These grubs feed on meal, flour, sea biscuit, and the pollen which is stored in the combs.

The beetle (Fig. 2) is 6-10 of an inch long, black, and closely resembles our common ground beetles, though its legs are shorter, and its antennae (see Fig. 2) bead like, instead of serrate.

Meal put about the combs will attract the insects, when they may be easily destroyed.

If these grubs could be induced to exercise a little more care, and eat the pollen, without injury to the cells, they might well claim the prize offered by the New York apiarists. I am now trying to educate some of these beetles, so that they may practice this discretion, and, if successful, will report to the bee journals.

A. J. COOK.

Mich. Agricultural College, Aug. 11, 1879.

ASTER TRADESCANTI.

W. J. BEAL:—Enclosed please find a plant which I have been watching all day. It has been swarming with bees and they were gathering both honey and pollen. It is something I have never noticed in this section of country. It is a very profuse bloomer, and yields much honey. I will save the seed. Please answer through GLEANINGS, and you will confer a favor.

D. T. KIMMELL.

Moberly, Mo., Oct. 3, 1879.

Answer by Prof. W. J. Beal, Michigan Agricultural College.

This is *Aster Tradescanti*, a species very common in many portions of the United States. It is just as good as others, but no better than forty other asters which grow in our country. All are prominent for bees in autumn.

PRAIRIE CLOVER.

I send you a few stalks and roots of a bee plant. The plant has from one dozen to three dozen flower stalks to each root, with one half dozen or more little balls, or clusters, of snow white flowers. The stalks are from 18 inches to 2 feet high, and grow in clay soil entirely, in the very poorest places you can find. The flowers are very fragrant, and smell like honey, and are in bloom by the first of June, and remain from 8 to 10 weeks. This and the mesquite are two of the finest honey plants we have on the prairies.

We have had no rain to do any good since the 5th of May. Bees are getting some honey; but in places there is no water for man or beast.

B. F. CARROLL.

Dresden, Texas, Aug. 19, 1879.

This is a species of *Petalostemon*. The plant is not in good condition, so it is not possible to decide the species. The common name is prairie clover. There are five species east of the Mississippi River. They are closely related to the clovers and are all excellent bee plants. I have often seen bees working on the flowers for weeks at a time. At the South, perennial plants usually remain in flower longer than they do further north.

W. J. BEAL.

Agricultural College, Lansing, Mich.

MOLLIE HEATH'S HONEY PLANT, STICK WEED, AND BUTTON WEED.

I am located on James River, in full view of the celebrated Dutch Gap. I send you three samples of honey producing plants, which grow spontaneously over our fields. The one with the yellow flower and pods belongs to the pea family. The little blue aster now covers entire fields. They are the spontaneous growth on sandy land, after the oat crop is harvested. They seem to furnish the principal food

for my bees, at this time. The other sample is known here as the stick weed, which is a pest to farmers, as it is not regarded valuable as a fertilizer or suitable for pasturage. I send you the top only of the bush, for it grows about 4 ft. high. It blooms in September. It grows on stiff clay soil, and presents quite a beautiful sight when in full bloom.

GEO. W. FRIEND, M. D.

Chester, Va., Aug. 28, 1879.

The first specimen is, as you say, of the Leguminosae or Pulse family, and is of the genus *Cesalpinia*, though of a different species than the *Poinciana*, not possessing the long crimson filaments that distinguish the latter. See "Mollie Heath's Honey Plant," April GLEANINGS, 1879. The one called "stick weed" is a species of aster, *Aster miser*. The third, we referred to Prof. Beal, who replies as follows:

This is *Diadia teres* (Button weed). It belongs to the Rubiaceae or Madder family with Galium, Button bush, Partridge berry, Houstonia, all of which are good bee plants, and some have numerous species.

W. J. BEAL.

EUPATORIUM ALTISSIMUM.

I send you the top of a plant which is growing in our wet lands, and is also getting on the hills somewhat, on my farm. It grows from 3 to 4 feet high, is full of branches, and blooms full of sweet scented flowers which produce a light colored, and pleasant honey in abundance. Will you give me, or us rather, the name of it in GLEANINGS. We call it the bee weed.

G. A. WILLIS.

Enfield, Ill., Aug. 27, 1879.

This is *Eupatorium Altissimum*, a plant with no common name. The genus is the same as that to which boneset belongs. There are 25 species east of the Mississippi. I have had five or more species sent me by apiarists, and shall not be surprised to receive any of the rest.

W. J. BEAL.

Boys' Department.

WON'T you listen to, and answer, a few questions? One of our hives of bees does not seem to do anything but stay in their gum all day long (and night too, I presume). I have begun to fear that not every thing is right with them. I will give you all the particulars. First, it has given us but one swarm this year; second, we have not "robbed" it yet; third, it is sitting in a cool corner of the fence, and seems to have suffered less from the warm weather than any of the other hives. I also noticed one of those "dun-colored flies" going into it, the other day. What is the matter with them? Our other three hives are at work hard every day, gathering pollen and a little honey. They get the pollen from the bitter weed, and the honey from a little plant that grows down in the broom-straw, and has a tiny blue flower on it. I would like you to tell me what it is.

Now, Mr. Root, don't laugh at me, for I must tell you,—my hopes are running high just now. I intend to buy a foot-power saw this winter, and then—I'll let you know. Pa has promised me a barrel of syrup this fall, and I am going to invest it in the bee business. Do you think that will be a good investment? I will also get something for collecting for pa, which I will put to the same use.

D. S. BETHUNE.

Snyder, Ark., Sept. 5, 1879.

Open your hive, my young friend, and see what is the matter. It will be a deal easier way than writing all the way up here. If it isn't one of the kind that *opens*, make it so, forthwith; that is, transfer them into a movable comb hive. Don't invest any more in bees, until you have taken better care of what you have got. In fact, I do not know but such advice would be best for all of us,—stop investing, and take better care of what we have got.