

only twelve of them were growing, out of these only two had made a satisfactory number of runners. The adjoining row of twenty-five yellows-free mother plants had all lived and had produced a nice row of plants.

Mr. A. N. Pratt, Tennessee State Horticulturist, joined the party at Greenfield and accompanied it the rest of the day and acted as a guide and host to the party while in the State. Mr. Pratt pointed out that the acreage of old yellows infested Blakemores was rapidly passing out in Tennessee and that the growers had found it a money making proposition to grow the yellows-free strain and were shifting to them as rapidly as possible. He stated the Tennessee Strawberry field contest staged annually in connection with the Humboldt Strawberry Festival had been a great aid in encouraging better practices in their berry producing area.

All of the Kentucky party were much impressed with the good berry growing practices seen during the day and all agreed that it was a day exceedingly well spent. In regard to the trip, Mr. Warner stated, "This day has been a real eye-opener to me. I didn't know Tennessee had any berry growers as good as we are seeing. These are the prettiest fields of plants I ever saw. It is easy to see that some of the yellows infected plants we have here in Kentucky *did not* come from such strains and fields of plants as we have seen today." Mr. Harris remarked, "I am glad there are plenty plants of these yellows-free strains that can be had at reasonable prices. I want enough of them to set an acre or so—but believe me, I want to know where my plants come from."

WHITE GRUBS

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Next to crown borer, white grubs cause more damage to Kentucky strawberry patches than any other insect. Often, as in this past season, dry weather is blamed for damage that in reality should be blamed on white grubs. Grubs usually injure plants by gnawing into the crown, and devouring the roots. In dry weather only the tips of the roots may be destroyed but this is enough to kill the plants.

Grubs that injure berry plants belong to a number of species whose adults are hard-shelled, tan, bluish, or dark-brown May beetles. The adults emerge only at nights and therefore are rarely seen by growers. After dark the beetles may be found feeding on oak, persimmon, hickory, elm or bramble foliage. Some of the grubs injuring the berry plants have a 3 year cycle; one of the most common western Kentucky species has a two year cycle.

Some studies were made the past year on the common western Kentucky white grub (*Ph. enhilid*) which has a two year cycle. Unlike most other grubs, this species is above the plow line thruout the year. Even during winter the grubs are rarely deeper than 3 inches in the soil and plowing turns up great numbers of them. The adults of this species are also peculiar in that they fly much later in the summer than most other species. The adult beetles of this species begin to emerge the last of June, feed on persimmon and other trees at nights, and lay eggs during July. The small grubs overwinter and damage the berry plants the following spring. The large grubs spend a second winter in the soil, and become adults in June.

Strawberry plants are most apt