

“June” Beetles and White Grub Control

A Review

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Due to heavy damage from white grubs in certain regions of the Province of Quebec, Canada, an effort was made to develop methods of control that would be effective and economically practicable by farmers.

It was found that the grubs constructed their earth cells in the upper layer of tillable soil, that is, not more than eight inches below the surface of the ground. This is a peculiarity of the species of this region, as other species studied elsewhere built their earthen cells at different depths.

Other peculiarities of the Quebec white grubs consist of changes of its length of pupation and the date of its emergence.

Among the methods of control studied, those consisting of chemical treatments proved to be no more generally practicable against the grubs than against the adults.

The capture of the adult “June Bugs” with light traps gave good results in numbers but proved unsatisfactory in that the capture represented males for the most part. The traps caught over 95 percent males which seemed not to have found mates during the period of flight. It is obvious that the destruction of surplus males only is not an effective means of control.

The study of rotation of crops showed that an appropriate length of the cycle of rotation can, in a certain measure, keep white grubs in check. Consequently, this method may suffice where the soil is slightly infested but is not radical enough for highly infested soils.

The practice of plowing followed by two or three scarifications with a disk harrow considerably reduces the number of white grubs.

It was demonstrated that among man's helpers in the fight against the grubs the pig was most efficacious.

Finally, the last method of repression studied took advantage of the fragility of the insects during the pupa stage and consists in eradicating it from its earthen cell with the aid of appropriate farming instruments. After several trials, it was concluded that a deep plowing during the month of July, that is, while the insect is in its most easily attacked stage, followed by two successive scarifications with the disk harrow, constitutes the most effective method of control for this region. This method has the great advantage of being simple and inexpensive. It is believed that its general application will contribute in a large measure to check the plague that white grubs have become in several regions of Quebec.
