

Fall Army Worm Is of Interest

Often Dispersed and Breeds Through Greater Part of United States.

(Prepared by the United States Department of Agriculture.)
One of the few insects that frequently disperse and breed through the greater part of the United States, only to perish at the end of the summer season, the fall army worm, is of great interest to students of economic entomology and of pure biology. When the fall army worm is spreading from field to field and from state to state, the insect is of great interest and a matter of dread to farmers. Philip Lugubill of the bureau of entomology, in Technical Bulletin No. 34-T, "The Fall Army Worm," just published by the United States Department of Agriculture, gives a history of recent depredations by the insect, estimates the damage done, explores the life history of the insect and suggests repression by mechanical, chemical, and natural means.

Cannot Endure Cold Weather.
The fall army worm cannot live through cold weather. In the United States it winters only in southern Texas and southern Florida. However, on numerous occasions it has spread over many of the southern states and at one time or another has invaded all the Atlantic coast states south of New Hampshire, all the Ohio valley, the Mississippi valley north to the neighborhood of Minneapolis, and has extended its range westward approximately to the Rocky mountains. It feeds on a large number of valuable plants, does serious damage to crops, and migrates northward in waves in seasons when the outbreak is serious. The larval forms do the damage to crops. The advance is made by the winged adult.

Preventing Injury.
The best method of preventing injury in northern states is to prevent multiplication of the early stages of the insect in the southern fields. When fields are infested farmers may help their own crops by control measures, and at the same time prevent the northward spread of the pest. When the worms have stripped one field they may march to another. Thousands may be killed by plowing a deep furrow across their path and dragging a log through the furrow. Similarly a roller may be used on lawns or on a hard road. Several sprays, dusts, and poisons have proved effective. Birds are active enemies of the fall army worm, and several insects, also, prey on it. Skunks, frogs, and toads eat many.

Technical Bulletin No. 34-T gives in full experimental studies on the life history and the bionomics of the insect. It will be of interest principally to entomologists and biologists. It may be obtained while the limited supply lasts, upon application to the United States Department of Agriculture.

How Many Cabbage Plants Are Required Per Acre?

The question is often asked how many cabbage plants are required to set an acre where they are placed three feet each way.
It is very simple to figure this for any planting distance. The distance between the rows is multiplied by the distance between the plants. In the case of cabbage where it is set 3 by 3 feet, we would multiply 3, the number of feet between the rows by 3, the number of feet between the plants in the row, giving us 9 square feet.
The figure is divided into 43,560 square feet (the number of square feet in an acre). Cabbage set 3 feet by 3 would give us 4,800 plants per acre, assuming that the acre is full to the margin. The square acre contains little less than 200 feet on all sides.

Square of Sod Pleases

Chicks and Broody Hens
A square of sod, dirt up, in the brooder will give chicks a good time picking at the bits of soil and gravel adhering to the roots, and scratching like old hens to get it. A square of sod makes also the best base for a nest for broody hens. Take a box not less than 12 by 10 inches. Fit some newspapers in the bottom, and on top of that place a piece of sod dirt up, and mold the nest to fit the body of the hen and prevent the eggs rolling into corners. If the box is set on a cement floor, put slats under to allow the free passage of air. Three days before setting the hens, treat them with sodium fluoride for lice.

Agricultural Squibs

A muddy barnyard is a fine breeding place for flies. Good drainage is the solution.

Outworms can be controlled with poisoned bran mash, scattered in the late afternoon or early evening at the rate of 15 pounds to the acre.

On rainy days repair that piece of machinery you need later on. It will save time when the machine is in the field. A stitch in time may save the wheat.

Outworms eat off many plants in the spring garden. They may be poisoned with bait placed near the plants.

"Tomato Yellows" Is Name Now Favored

Word "Blight" Is Not Truly Descriptive of Ill.

(Prepared by the United States Department of Agriculture.)

Tomato growing, formerly in the West, and more recently as far east as Iowa, has been made difficult and sometimes impossible by a disease known sometimes as "western tomato blight" and sometimes "western yellow tomato blight" and again by some other combination of the names. Michael Shapovalov of the United States Department of Agriculture urges that this disease should be known generally as "tomato yellows," a descriptive name that has already been used in some scientific reports on the disease. The word "blight" is not truly descriptive, because tomatoes are subject to other blights, and there have been instances where western growers have ordered "blight resistant plants" only to find them resistant to another blight, but not to the disease caused by the transfer of the yellow virus from a sick plant to a healthy plant by means of the beet leaf hopper, the same insect that carries a somewhat similar disease, the curly top of beets.

In favor of the change in names from those that are inexact and cumbersome to one that is exact and simply descriptive, this pathologist emphasizes the need for active control work which can be applied by growers. Some experimenters are trying spray to repel the insects, others are trying to perfect methods of growing that will protect the plants or enable them to withstand attacks. The bureau of plant industry has had considerable success in protecting tomatoes with shade from cloth tents or from sunflower plants. In this leaflet, Miscellaneous Publication No. 13-M, "Yellows a Serious Disease of Tomatoes," which may be obtainable on application to the Department of Agriculture, Washington, D. C., the author does not go into the details of the protective methods, but urges primarily the adoption of the name, "tomato yellows" as a substitute for other less descriptive names.

Planting Disease-Free Seed Always Profitable

The loss caused by planting diseased seed which results in lower yields can be prevented if certain practices are followed. During the past several years farmers have been urged to test every ear of seed corn with the modified rag doll in order to detect and discard those ears which were infected with dry rot molds. This method has proved its worth because it has insured the use of nearly disease-free seed corn which in the average will yield five bushels per acre more than planter box corn that has not been so carefully tested. It has long been recognized that this method, even though effective, is laborious and never will be used by more than a small percentage of farmers. For the commercial seed grower, handling hundreds of bushels of seed, it is impossible to test each ear separately. This drawback to the method does not eliminate its value. The individual ear test has demonstrated the importance of using nearly disease free seed. The problem now is to utilize other methods in securing such seed.

Life of the Harness Is Protracted by Lubricant

Oiling harness twice a year will greatly increase the period for which it can be used. Leather is composed of interlocking fibers which become brittle when dry but are elastic and of great tensile strength when containing sufficient oil, say members of the farm staff of Minnesota university. The harness should be taken apart, thoroughly cleaned with a dry brush, then placed in a wire basket and lowered into a ten-gallon can into which five gallons of lukewarm harness oil has been poured. Leave for ten or fifteen minutes or until bubbles cease to rise to the surface. Lift out and leave in wire basket above the can until draining ceases. Then wipe all parts with rags and reassemble them. It is said that harness so treated will seldom need repairs and will last twenty years or more. Washing the harness and allowing it to dry before dipping is even better, but the essential thing is to get the harness oiled.

Manure Spreader Useful Implement on Any Farm

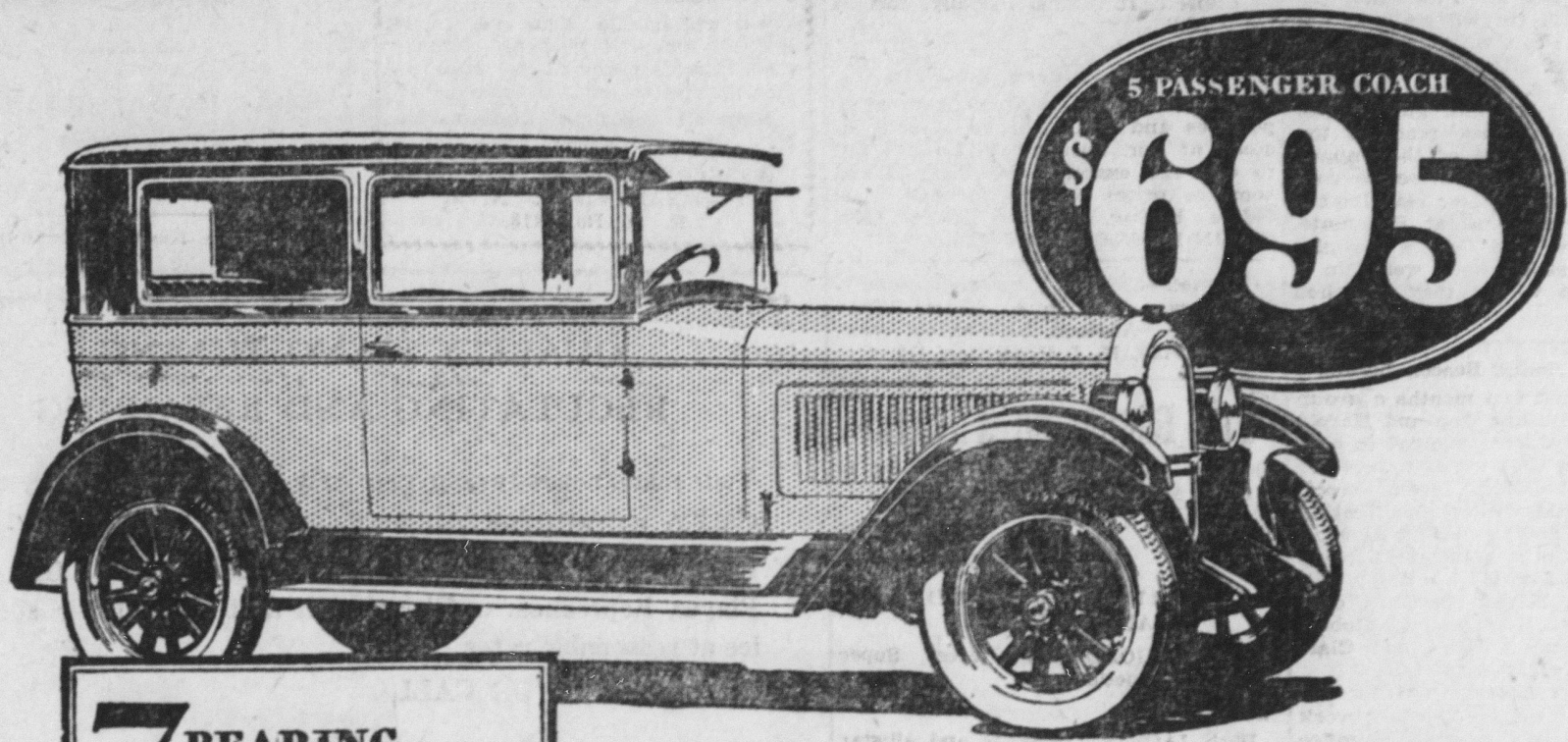
The farmer who tries to run a farm economically without the use of a manure spreader is making a mistake. This is one implement that every farmer ought to possess, even though his farm may be only a small one.

Manure that is allowed to pile up under the eaves of the barn, with the most valuable fertilizing elements leaching away, is worth only a fraction of that that is hauled out promptly and distributed evenly over the land. If any leaching is done, let it be done in the field.

With spreading of manure by the use of forks it is impossible to get uniform distribution. The manure spreader tears up the manure and spreads it in an even, uniform strip down the field. The maximum value of the manure is thus derived.

The labor-saving feature of the manure spreader is another tremendous advantage. With it the actual labor of handling the manure is reduced by at least 50 per cent and besides, time is saved.

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Marital Amenities

Ellen—On just such a night as this you proposed to me, Jim.
Jim—Yes. It is a rotten night isn't it?
—London Answers.

WORMS SAP A CHILD'S VERY LIFE

Does your child grit his teeth? Pick his nostrils? Have a disordered stomach? These are symptoms of worms—those deadly parasites which will so quickly ruin a child's health.

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Child Tires Quickly of Games or Sports

By holding a stopwatch on ten busy three-year-old boys and girls, a psychologist at McGill university, Montreal, has found that a child of this age is usually interested in one thing for just about eight minutes. After that, some new amusement or occupation must be produced. Even when three-year-olds at home or at nursery schools are most absorbed, they cannot be expected to spend more than half an hour at one kind of occupation, according to K. M. Banham Bridges, who describes the experiment in a report to the Pedagogical Seminary. Boys in the experiment liked best building with large blocks, and other occupations in which they could use the entire body freely. The girls preferred sitting at a table matching colors or fitting cylinders into different kinds of holes. The girls showed an interest in a wider variety of activities than the boys and their interest in a task lasted a little longer, the psychologist reports.

House Quickly Built

To demonstrate standardized steel houses, one of them was erected in three hours in Europe recently. Standard-size bolts were used to "button" together steel girders, plates and rafters. The house was a simple type that may be erected within the means of the average man's income.

First Call

Hostess—I've got one of the best cooks going.
Visitor (eagerly)—When?

Early Phone Conversation

The first long-distance telephone conversation was from Boston to Cambridge in 1876, and the length of the line was only two miles, according to the New Jersey public utility information committee. At the end of 1923 there were nearly 6,300,000 miles of telephone wire devoted exclusively to long-distance messages, which total about 2,400,000 every day. By means of transcontinental trunk lines and branches running north and south it is possible to carry on a long-distance telephone conversation between almost any two points within the United States as well as in Canada and Cuba.

All for That

"Will you join us in some welfare work?"
"I dunno. I'm pretty busy."
"We start the campaign with a luncheon."
"I'll join you in that."—Louisville Courier-Journal.

A wise old lawyer says that a cross-examination should be a good-natured one.

One Method

The Artist—One can't realize how much art owes to women.
Friend—Well, I suppose one could find out by asking the landladies in Greenwich Village.

The Barrier to Health—Waste Matter in the System

Charleston, W. Va.—"If my liver gets sluggish or inactive, or if I become constipated, feel mean, with a dull headache, I take Dr. Pierce's Pleasant Pellets and they stir up the liver, relieve me of constipation and I am soon all right. They are the mildest laxative that anyone can take and keep the system so regulated and free of waste matter that one has very little use for any other medicine. I consider these 'Pellets' the very best regulator of the stomach and bowels that a person can take."—Mrs. John E. Cutlip, 2 Atkinson Court.



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