

Combatting Corn Pests

Descriptions and Methods of Destroying the Enemies of this Very Important Farm Product

By C. E. Brasher, Student in the College of Agriculture, University of Missouri

The greatest amount of injury to corn from insects occurs after plowing up grass land of long standing, or results from the continuous culture of corn upon the same land several years in succession. Some of these insects are able to live on weedy plants. Generally, therefore, the most effective remedies against insect attacks are short and systematic rotations, accompanied by clean culture of the field and surrounding fields. Where the land is neither in grass nor corn for more than two years in succession the attacks of insects are comparatively limited. The insects of most economical importance to the corn growers are:

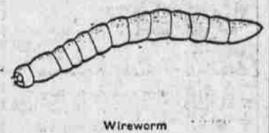
- (1) Wireworms.
- (2) Cutworms.
- (3) White grubs.
- (4) Corn root worms.
- (5) Corn root louse.

WIREWORMS are the larvae of the large family of click beetles, or "snap bugs." The worms vary in length from one-half to one and one-quarter inches, have a hard, smooth, shining surface, varying in color from yellowish to reddish brown. The beetles re-



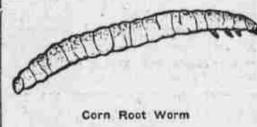
White Grub

main in the soil over winter and emerge in the spring. Eggs are then laid in the soil in the grass land, where they soon hatch, the larvae requiring at least two years to fully mature. The worms are very destructive by attacking the seed in the ground before it is sprouted, and by also eating and boring into the roots and stems of the young growing plants. The injury is likely to be greater the second year after sod is broken up.



Wireworm

CUTWORMS—There are different species of cutworms, but their injury and treatment are substantially the same. The moths, of which the cutworms are the larvae, lay their eggs upon the leaves of grasses in the meadows and pastures and the larvae



Corn Root Worm

the worm largely during July and August, by beginning in the tip of the corn root and working toward the plant, devouring the inner portion of the root as it goes. Since the worms have no other plants on which they feed, and since the eggs are usually laid about the hills of corn, a rotation furnishes a simple and effective remedy for these insects. It is destructive only when corn is cultivated on the same land several years in succession.



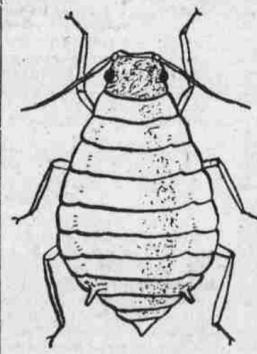
Cutworm

worms feed upon the growing vegetation. The fully grown cutworm is one and a quarter to two inches long and varies in color with the species from dull brown to gray or green, and is variously marked with longitudinal or oblique stripes and dashes and dots. When grass lands, especially of long standing, are plowed up and planted to corn, the cutworms, being deprived of other vegetation, attack the young corn plants when only a few inches high, cutting them off just above the ground. The larvae pupate during late spring and summer, thus permitting late-planted corn to escape their attacks in some cases. Late fall plowing is quite effective by disturbing and exposing the worms and by destroying the food on which they would feed during spring. They may also be poisoned by the following mixture:

- Wheat bran.....40 pounds
- Molasses.....2 quarts
- Paris green.....1 pound

This is mixed with enough water to moisten. A tablespoon of this mixture placed near each hill will attract the cutworms and prove fatal.

WHITE GRUBS are the larvae of May beetles or June bugs. The beetles lay their eggs mostly during June, in the soil, commonly in grass lands, but not infrequently in corn land also. The eggs hatch in 10 to 18 days and the grubs are supposed to live for two full



Corn Root Louse

period in the summer, from about the middle of July to the middle of September, when the pasture is liable to be short. Corn is in many ways the best crop for summer sowing. The main difficulty is it does not come on early enough. Even the early varieties are hardly mature enough to feed before August 1. Something is often needed earlier. Sweet corn is good feed, but does not yield heavily. Second-growth clover, millet or alfalfa can be used if available. After August 1 in the corn belt corn and sorghum are the best crops for supplementing pastures. Green crops fed as a supplement to pasture may be fed in the pasture or in the barn lot, but as a rule are fed most economically in the barn. The cows remain inside long enough at milking time to eat their portions.

SUMMER FEED FOR COWS

SUPPLEMENTS TO BLUEGRASS NEEDED DURING DRY SEASON.

By C. H. Eckles, Professor of Dairy Husbandry, University of Missouri.

During the dry part of the summer it is usually possible to hold the milk flow by heavy grain feeding, but this is unnecessarily expensive. Provision should always be made to have green crops on hand that may be cut and fed when needed, or to have silage available. It is the nature of bluegrass to grow freely in early summer, then to rest until fall. This leaves a

Rich Haul by Forgers.

The Bank of Naples (Southern Italy) has recently been the victim of fraud to the extent of \$160,000, by means of genuine checks, the figures of which, however, had been cleverly altered and augmented with the aid of chemicals and a perforating machine. The trickster, of whom there is no trace, had checks cashed simultaneously at the branch offices in Turin, Florence and Rome.

The Kinds of Lies.

A Chicago university professor, after exhaustive research, has discovered there are ten different kinds of lies. Under his classification there are the fantasy or fairy tale lie, the vainglorious or boasting lie, the defensive lie, the heroic lie, the white or permissible lie, the society lie, the business lie, the art lie and the adulterative lie.

All the riding hard, showing true and dying game—poor ethics of the open—had not brought a crumb, not a crumb, of the real bread of life.

Courage Most Needed.

The greatest part of the courage that is needed in the world is not of an heroic kind. Courage may be displayed in every day life as well as in historic fields of action. There needs, for example, the common courage to be honest, the courage to resist temptation, the courage to speak the truth, the courage to be what we really are, and not to pretend to be what we are not, the courage to live honestly within our means.—Smiles.

Jarndyce and Jarndyce.

Seven years ago a New York real estate operator left \$40,000 to the cause of charity. Recently the court decided the will valid, but now there is no estate to distribute—the lawyers have it. The purpose of the will has been accomplished.—New York Herald.

Evidently Some Snorer.

A woman woke her husband during a storm the other night, and said: "I do wish you would stop snoring, for I want to hear it thunder."

FREEDOM IN BURMA

No One Interferes in the Affairs of Another.

Remarkable Trait of Burmese Character is Their Unwillingness to Interfere in Other People's Business—Each Acts for Self.

London.—A remarkable trait of the Burmese character is their unwillingness to interfere in other people's affairs. Whether it arises from their religion of self-culture or no, I cannot say, but it is in full keeping with it. Every man's acts and thoughts are his own affair, think the Burmese; each man is free to go his own way, to think his own thoughts, to act his own acts, as long as he does not too much annoy his neighbors. Each man is responsible for himself and for himself alone, and there is no need for him to try and be guardian also to his fellows. And so the Burmese likes to go his own way, to be a free man within certain limits; and the freedom that he demands for himself he will extend also to his neighbors. He has a very great and wide tolerance toward all his neighbors, not thinking it necessary to disapprove of his neighbors' acts because they may not be the same as his own, never thinking it necessary to interfere with his neighbors as long as the laws are not broken.

Our idea that what habits are different to our habits must be wrong, and being wrong require correction at our hands, is very far from his thoughts. He never desires to interfere with anyone. Certain as he is that his own ideas are best, he is contented with that knowledge, and is not ceaselessly desirous of proving it upon other people.

And so a foreigner may go and live in a Burman village, may settle down there and live his own life and follow his own customs in perfect freedom; may dress and eat and drink and pray and die as he likes. No one will interfere. No one will try and correct him; so one will be forever insisting to him that he is an outcast, either from civilization or from religion. The people will accept him for what he is and leave the matter there. If he likes to change his ways and conform to Burmese habits and Buddhist forms,



Typical Burmese Architecture.

so much the better; but if not, never mind.

It is, I think, a great deal owing to this habit of mind that the manners of the Burmese are usually so good, children in civilization as they are. There is among them no rude inquisitiveness and no desire to in any way circumscribe your freedom by either remark or act. Surely of all things that cause trouble nothing is so common among us as the interference with each other's ways, as the needless giving of advice. It seems to each of us that we are responsible not only for ourselves, but also for every one else near us; and so if we disapprove of any act we are always in a hurry to express our disapproval and to try and persuade the actor to our way of thinking. We are forever thinking of others and trying to improve them; as a nation we try to convert weaker nations and to convert stronger ones, and as individuals we do the same. We are sure that other people cannot but be better and happier for being brought into our ways of thinking, by force even, if necessary. We call it philanthropy.

CLOCK SAVES LIFE OF YOUTH

Sound of Alarm at Unusual Hour Leads Rescuer to Intended Suicide Just in Time.

New York.—An alarm clock, which began a long-continued ringing at the unusual hour of 6:30 in the evening in one of the rooms occupied by Meyer Berman and his son, Michael, at 119 Forsyth street, caused Max Rubin, a tenant, to investigate. Rubin found the son lying semi-conscious on the floor with a gas stove tube in his mouth. Rubin gave the alarm, and a policeman restored the youth to consciousness quickly.

Young Berman told Detectives Wood and Spiro on the way to the Clinton street police station that he had been out of work two months and hungry two days. His story was overheard by a man in a restaurant, to which the detectives took him for a meal. The stranger said he was Philip J. Abrams, proprietor of a hotel in Tannersville, and that he would take the young man there to give him a position for the summer.

CROP CONDITIONS IN WESTERN CANADA

ARE THE MOST PROMISING FOR MANY YEARS.

The deepest interest is attached to the condition of the grain crops in Western Canada, especially among the thousands in the United States who are financially interested in lands in that country. This interest is fully as great among those who have friends there following farming and the growing of grain.

The reports from Canadian government officials convey the information that the area under crop this year in the provinces of Manitoba, Saskatchewan and Alberta will probably be no greater than that of last year. Last fall the weather was such that there was not so much fall plowing as had been hoped for. The getting ready of land this spring made a considerable portion of the grain late in seeding. Notwithstanding this, wheat, oats, barley and flax were got in in good shape, although from a week to ten days later than last year. On the 27th of June the reports regarding crop conditions generally in Western Canada were: "Abundant sunshine with timely and copious rain throughout Western Canada gives every assurance of generous harvest. Climatic conditions in recent weeks have been absolutely ideal. Western correspondents agree in predicting every indication of a bumper crop under favorable conditions. Wheat should be headed out in Manitoba between July 10th and 12th, and in Saskatchewan and Alberta from 15th to 17th. The oat crop is looking well, although late and rather short in straw."

This is followed by a report July 5th: "Crop conditions continue in same satisfactory condition as last week. Prolonged rains have fallen all over prairie provinces, followed by general warm and splendid growing weather. Experts agree sufficient moisture for many weeks, while crop is ten to fifteen days late, prospects are extremely favorable and conditional upon reasonable weather for next four weeks. Splendid western crop is assured."

There is, therefore, the best reason to anticipate most magnificent crops throughout Western Canada in 1913.—Advertisement.

GOOD SAMPLE OF RURAL WIT

Joke That Had Excellent Humor Without a Single Touch or Thought of Malice.

If there is a difference between rural wit and any other kind, it is this—that rural wit is mellow in flavor. In this it resembles English wit; the rough corners have been rounded off by the attrition of years and more nearly perfect jokes result. Ira Beasore drove into town just before the big rain the other day, and he saw Orlo Tuttle setting tubs and barrels under all the spouts around his house. So Ira pulls up and hollers at Orlo: "Hey, Orlo! What you doin'?" "Looks like rain, an' I'm a-settin' out these tubs so's the woman can have some soft water fer her washin' Monday," answered Orlo, all innocent like and not thinkin' about what a great coddler Ira is. "Sho!" says Ira. "You won't git no soft water." "Why won't I?" "Cause it's going to rain hard! Haw-haw-haw! Git-up!"

Even in the Child Mind. This incident was related by Mark Twain with great glee about a certain little girl friend who "shone as an authoress." One day she handed her devoted sympathizer the sheets of a story which read thus: "A man was seated in a chair by the fireside brooding over his troubles. He was sad because his wife was dead. Suddenly a specter appeared before him, and it was his wife. She said: 'Dear, I could not bear to see you so sad and discontented, so I have come to comfort you. You must not be sad. You must be bright and happy. It was best that I should leave you when I did, because I was going to get a divorce.'"

Found Londoners Cold. The high commissioner of New Zealand did not like his reception in London when he first went there—a plain citizen, then—24 years ago. He had nobody to talk to, and instead of staying a month or six weeks, as he intended to, he departed within a few days for Washington, where he appears to have received what is known as the "glad hand." Thomas MacKenzie took great pleasure in recalling his first impressions of London at the Atlantic Union dinner in that city recently.

Not Practical. In Oregon a law intended to prevent the marriage of the unfit has encountered a practical difficulty. It prescribed an examination of the blood as a precaution against tuberculosis and other diseases, but the fee, fixed in the law was less than physicians would accept, and they say that for the work required \$15 or \$20 would not be too much. If fitness for marriage cannot be determined cheaper than that, the Caucasian must be, as Bret Harte put it, "played out." It is unwise to make marriage laws burdensome.—Springfield Republican.

He Picked Them Out.

"Oh, Harold," cried the small boy's mother, surveying the bedraggled figure of her darling, "why do you always manage to slip in the muddy places?" "Because, mamma, the dry places aren't muddy."

The pen is mightier than the sword when it comes to getting a fool man into real trouble.

REALLY CLEVER OF JOHNNY

Unfortunate Mr. Smith Had to Join in the Laugh That Followed Diagnosis of Small Boy.

Reference being made at a banquet some time since to the wonderful sayings of the youngsters, Gov. Ben W. Hooper of Tennessee was reminded of the innocent remark of a little Nashville boy.

One afternoon, the governor said, the little boy returned from school complaining that he had a stomach ache. His mother explained that the ache was due to the fact that his stomach was empty, and that he would feel better if he had something in it.

Two evenings later a young man called to see little Johnny's sweet sister. Sitting in the parlor, waiting for the family to retire, the young man remarked that he had a headache.

"I know what's the matter with it, Mr. Smith!" exclaimed Johnny, with great promptness. "Do you really, Johnny?" indulgently smiled Mr. Smith.

"Yes," was the starting explanation of Johnny. "It's empty. You'd feel better if you had something in it."

What She Wanted. One day in the spring the orphans from the asylum were taken in motor cars out to the park. A society woman, accompanied by her stylish little daughter, was driving through the park in a big limousine car. They stopped and watched the procession of little orphans, and the mother explained that the little boys and girls had no homes and no fathers or mothers.

After she had finished she discovered that her little daughter was almost crying, and her eyes were filled with tears.

"Why, what's the matter, dearest?" she asked.

"Oh, mother," was the sobbing reply, "I want to be an orphan. Can I?"—Harper's Monthly.

Domestic Breadmaking.

With a fear of scarcity of bread through shortage of flour, one recalls Cobbett's story of the woman in the house who, provided with materials, still lacked a loaf. "As to the art of making bread," he wrote, "it would be shocking indeed if that had to be taught by the means of books. Every woman, high or low, ought to know how to make bread; if she do not she is a mere burden upon the community. Yet it is but too true that many women know nothing of the making of bread. . . . Even servant women in abundance appear to think that loaves made by the baker are things of their pure creation—things, too, in which no one else can participate. Now, is not this an enormous evil?" Cobbett's words, however, failed to touch the kitchen, for the "enormous evil" still exists!

To Get Rid of Mosquitoes. You can sleep, eat, hunt or attend to any work without being worried by the biting or stinging of Mosquitoes, Sand-flies, Gnats or other insects by applying to the face, ears and hands, DR. PORTER'S ANTISEPTIC HEALING OIL. 75c.

Gastronomically Speaking. Willie—My father put down a disturbance last night. Billie—Is that right? Willie—Yes; he ate a Welsh rabbit.

There are only two kinds of women I am afraid of—the married one and the single ones.

HOW COCA COLA REFRESHES.

The remarkable success which has attended the sale of Coca-Cola has been explained in many different ways. Some have attributed it to "good advertising," others to "efficient management," others to its "delicious flavor" and still others to the fact that it was the first in the field of "trade-marked" soft drinks.

In this connection, the opinion of a manufacturing chemist who has analyzed Coca-Cola and studied its history for many years, will prove interesting. He attributes the popularity of the drink in large part to its quality of refreshing both mind and body without producing any subsequent depression. He points out the fact that the chemical composition of Coca-Cola is practically identical with that of coffee and tea (with sugar added) the only material difference being the absence of tannic acid from Coca-Cola. He points to the laboratory experiments of Dr. Hollingworth of Columbia University and of Dr. H. C. Wood, Jr. of Philadelphia which prove conclusively that caffeine-containing beverages (coffee, tea, Coca-Cola, etc.) relieve mental and muscular fatigue by rendering the nerves and muscles more responsive to the will, thus diminishing the resistance produced by fatigue. These experiments also demonstrate the fact that the caffeine group of beverages differ from the stimulants in that the use of the latter is followed by a period of depression which calls for more stimulation, thus resulting in the formation of a "habit."—Adv.

Royalties That Dislike the Motor.

The czar is, among European monarchs, the one who makes the least use of the motor car. His imperial majesty, in former days, registered a row that he would never enter such a conveyance, and although necessity occasionally compels him to break it, his dislike for motors is unabated. When King Edward first took a car with him to Denmark on joining the big family party at Fredensborg one year, neither the czar nor his grandfather, King Christian IX., could be persuaded to set foot in it.

Where the Calculator Scores.

The best tradition requires that whenever a lightning calculator tells how many seconds there were in the life of Methuselah some one must shout: "Wrong! You've muffed it this time. I've figured the whole thing out, and here are the figures." Whereupon the lightning calculator receives an armful of papers, glances at the first few sheets, looks up, grinning and chuckles: "Just as I thought. You've forgotten the leap years."

How Students Got Fresh Eggs.

An Indianapolis traveling man witnessed a novel feat by students of De Pauw university at Greencastle the other day. He said he was at a station in that city, and standing near was a poultry car loaded with live poultry. The hens were cackling and "carrying on" at a great rate. A crowd of students stood around the car, and whenever a hen produced a nice, new, fresh egg a student reached his arm through the side of the car, seized the egg and made for a nearby store, where he tried it over a gas jet. "There were at least twenty students around the car," said the traveling man, "and the hens kept them busy all the time I was there. I don't know how many eggs the students got, but it was a busy bunch of hens. Just before my train pulled out I heard one student say to another: 'Gee, I never ate so many eggs in my life!' There was no question about the freshness of the eggs."

Many a fellow who weds an heirless marries Miss Fortune.

Horrible Death in Elevator Shaft. Powerless to move, a man named Fulmer, employed at an abattoir, lay at the bottom of an elevator shaft at Philadelphia, Pa., the other day, and waited the descending lift, which crushed him to death. The man had fallen into the shaft, and his cries for aid were drowned by the noise of the machinery. The man fought desperately against the freight laden elevator. His body was flattened almost to the thinness of paper.

Not Always. "There's always room at the top," said the Sphinx. "Take a look at us and guess again," replied the Pyramids.

SAVED FROM OPERATIONS

Two Women Tell How They Escaped the Surgeon's Knife by Taking Lydia E. Pinkham's Vegetable Compound.

Swarthmore, Penn.—"For fifteen years I suffered untold agony, and for one year of nearly two years I had hemorrhages and the doctors told me I would have to undergo an operation, but I began taking Lydia E. Pinkham's Vegetable Compound and am in good health now. I am all over the Change of Life and cannot praise your Vegetable Compound too highly. Every woman should take it at that time. I recommend it to both old and young for female troubles."—Mrs. EMILY SUMMERSHILL, Swarthmore, Pa.

Baltimore, Md.—"My troubles began with the loss of a child, and I had hemorrhages for four months. The doctors said an operation was necessary, but I dreaded it and decided to try Lydia E. Pinkham's Vegetable Compound. The medicine has made me a well woman and I feel strong and do my own work."—Mrs. J. R. PICKING, 1269 Sargent St., Baltimore, Md.

Since we guarantee that all testimonials which we publish are genuine, it is not fair to suppose that if Lydia E. Pinkham's Vegetable Compound has the virtue to help these women it will help any other woman who is suffering in a like manner?

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Can quickly be overcome by CARTER'S LITTLE LIVER PILLS. Purely vegetable—act surely and gently on the liver. Cure Biliousness, Headache, Dizziness, and Indigestion. They do their duty. SMALL PILL, SMALL DOSE, SMALL PRICE. Genuine must bear Signature.

Beentwood

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