

The Army Worm and Its Control

How to Dispose of Pest Which Swoops Down on All Green Crops

The army worm that has been doing so much damage to corn, wheat and green crops in various sections of the country, is the caterpillar form of a moth that flies only at night, according to Frank B. Wade, deputy entomologist for the Indiana state conservation commission. In a bulletin issued by the commission, Mr. Wade describes the family history of the pest and tells the most approved methods of fighting it.

"To begin with," said Mr. Wade, "the moth is about one and one-half inches across the spread wings and is brownish gray in color. The caterpillar, when full grown, is about one and one-half inches long, is smooth, and is usually greenish in general color with a narrow stripe of dark gray or black down the middle of the back and with a narrower stripe of the same color on either side. The broad stripe usually has a fine light broken stripe running down its center. The head is greenish-brown, speckled with black.

"It is this caterpillar form that does the damage by eating every green thing within reach. So numerous do they sometimes become that one can actually hear them eat in concert. When they have cleaned up on the food supply in one field, they move en masse to an adjoining field, and thus comes about the familiar name of army worm.

"The full grown caterpillar ceases to feed and goes into the pupa or resting state after from three to four weeks of feeding. Here it remains beneath the surface of the soil, as a rule, for about two weeks. The pupae look something like date seeds. The moth on emerging from the pupal case dries its wings and flies away to mate. The eggs are then laid usually in the folded part of grass blades, and they hatch in from eight to ten days, thus starting the tiny caterpillars once more.

"To control these pests one should be alert to detect the first attack, for the area invaded is usually relatively small at first and may be mowed off and straw scattered and burned, thus destroying the caterpillars. Another method of control is to spray the infested area heavily with paris green (one pound to 50 gallons of water) or with lead arsenate (two pounds to 50 gallons). Such sprayed material should, of course, not be used as feed.

"Poisoned bait will also do good service. Make up a bran mash with 50 pounds of wheat bran and one pound of paris green or two pounds of lead arsenate and moisten it with cheap molasses or sirup and add the juice of half a dozen lemons or oranges. By scattering this bait broadcast throughout the infested area in small pieces, a large number of worms may be killed.

"To keep the worms from moving on to new feeding grounds, trenches should be plowed entirely across the infested area. The trench should be at least six inches deep and should have a vertical side toward the new ground. It should have postholes at intervals for the worms to fall into and it should be kept as dusty as possible by dragging a log through it to pulverize the soil. It should be tended at all times when the worms are on the move, as they should be burned when they begin to get numerous in the trench. A gasoline torch or straw covered with coal oil may be used for this purpose.

"In wet weather the trench will not stop the worms, and then a line of heavy road oil laid an inch or two wide on a smooth hard surface should be used. Drag a plank heavily loaded with stones over the ground to prepare the surface for the oil.

"The army worm appears about the same time each year, but in small numbers and without doing noticeable damage. It is only when, because of circumstances which are not thoroughly understood, the army worm becomes very numerous, that it is a menace. Probably some of its natural enemies fared ill last winter and were not on hand in their usual numbers to dispose of the worms this spring. At any rate they are with us, and if not properly handled they bid fair to do more damage in the localities where they appear than the seventeen-year locust."

Children's Minds Should Be Stored With Pictures They Can Describe in Own Words

Memorizing is a worthy mental exercise, but one can hardly help protesting against the practice, now happily less common than in years within memory, of compelling young children to commit to memory tasks actually painful either from their impossible length or from their uninteresting and unintelligible matter. The good practice of a pleasurable habit of learning by heart a suitable quantity of suitable matter has suffered from a natural reaction; but we are now returning to better things, and we are convinced that there are few efforts more pleasant to children than the consciousness of having committed to memory a suitable task, that is, of having formed a clear and complete picture of some interesting subject.

Do not let the time pass for storing your scholars' minds with an abundance of distinct pictures, which they can represent to their own minds and describe in their own words.—A Teacher.

Reader Finds Comfort in Old Books Written Without War in the Author's Mind

If during the war it almost seemed to some people that nothing written before 1914 had kept its old value, they may, on the contrary, soon find themselves blinking suspiciously at books written since then. Mathematicians distinguished carefully between "systematic" error, which is cumulative, and the casual errors which are as likely to lie in one direction as the other and in the long run tend to offset each other. To the reader who is beginning to recover a deranged critical faculty the trouble with most of which has been written since 1914 is that it contains a systematic error due to the perturbations set up by the great war. The comfort of old books, on the contrary, lies in the fact that they were not written with the great war lurking in some corner of the author's mind. Whatever their errors and prejudices, they are not bent all one way by a single force, and even their prejudices neutralize each other.

Mother's Cook Book

The life that is sharing in the interests, the welfare and the happiness of others, is one that is continually expanding in beauty and in power and, therefore, in happiness.

Good Things for the Family.

As the new apples are now in season, serve them in other ways than as apple pie and sauce. Sliced green apples with one-third as many sliced onions cooked in a little sweet fat with water added as the moisture is evaporated makes a most appetizing dish to serve as a vegetable. Add sugar to soften the acid of the apple and salt and pepper if desired.

Chopped Apple Fritters.

Take one cupful of flour, half a cupful of sugar, three apples, one egg, one teaspoonful of baking powder, one cupful of milk and a pinch of salt. Mix as usual, stirring in the chopped apples at the last. Drop by spoonfuls in hot fat and serve rolled in sugar or with a hot sauce as dessert. Green apples are much better flavored if they are used unpeeled.

Pineapple Jelly With Cream Cheese. Prepare the jelly as usual and mold in small cups. Unmold on lettuce and serve with the cream cheese iced over the top. Garnish with salad dressing and serve cold.

Parsley Potatoes.

Cook small-sized uniform, new potatoes until well done, turn into a vegetable dish with enough butter to cover, sprinkle with minced parsley and serve at once.

Oatmeal Cookies.

Take one cupful of shortening, one cupful of sugar, two cupfuls of flour and two cupfuls of rolled oats well browned and put through the meat grinder; one cupful of chopped raisins, half a cupful of broken nut meats, two eggs, half a teaspoonful of soda dissolved in half a cupful of sweet milk, one teaspoonful each of cinnamon and salt and a half teaspoonful of grated nutmeg. Mix well and drop by small teaspoonfuls on a baking sheet.

Raisin Muffins.

Add to one-half cupful of raisins, one-half cupful of oatmeal, one-fourth cupful of lard, one teaspoonful of salt and a half cupful of boiling water. When cool add half a cupful of cold water and two teaspoonfuls of baking powder sifted with flour to make a drop batter; do not beat. Drop into hot, greased muffin pans and bake in a hot oven.

Sponge Cake Trifle.

Cut a slice of sponge cake and moisten with cherry juice and a few halves of cherries, put another slice on top and add more juice and cherries. Serve sprinkled with shredded almonds.

Grape juice with a spoonful or two of lemon juice added to thin cream and sweetened to taste, then frozen, makes a beautiful frozen dish and one which tastes as good as it looks.

Nevis Maxwell

Glimpse of an Empire Abolished by the Peace Treaty



Bedouins eating in their camp near Baghdad, one of the greatest cities in all the old Turkish empire. The Bedouins are wandering clans who seldom stay more than one year in the same locality. Their half Gypsy life will not be much changed by British or allied rule in Mesopotamia. Mesopotamia's farm lands now produce food enough for less than a million people. With modern irrigation methods in the Tigris and Euphrates valleys the region could feed twenty million people.

MOSQUITOES

Pest Which Causes Suffering and Annoyance

Mosquitoes are man's inveterate tormentors and foes. At the seaside, on the undrained prairies of the West and Northwest, in the far North, by woodland pool and mountain meadow these bloodthirsty brigands in countless myriads waylay the individual on business or pleasure bent.

"Swamps, ponds and marshes, however, are not the only places which breed mosquitoes. A little rain water in an old tin can or undrained roof gutter, if neglected, will supply mosquitoes for a town or city neighborhood, spreading discomfort, causing insomnia and tempting to profanity.

If mosquitoes were merely a bothersome plague, there would be ample justification for unrelenting warfare against them, but when it is considered that several species disseminate malaria, rendering many regions of great fertility almost uninhabitable, and that one kind of mosquito found in the South will convey yellow fever, no argument for fighting them is necessary.

Dancing, Saturday Night Program for Haitians in Their Little Villages

Dancing to the music of a drum, saxophone and flute is the chief source of amusement for Haitians in their little villages on Saturday night, according to an article by William Almon Wolf in Collier's Weekly. Beginning at sundown every Saturday night, he writes, one will come to a wine shop, if one follows the sound of the drum. The drummer sits outside. His unceasing drumming marks the rhythm of the music; what melody there is, is borne by a flute, and almost always there is a saxophone. The music is the same at every dance. It is in common time; a single cadence is repeated, over and over again.

Dancing in Haiti resembles the sarranalla among the Australian aborigines, Mr. Wolf writes. The dancers are frank and unashamed, and one gets little or no feeling of a personal note between the two one sees dancing; rather they are staging a spectacle.

PITH AND POINT

To find work, go to work and look for it.

Before taking certain steps consult a dancing master.

A wise barber asks the young man if he wishes a haircut.

A small boy's idea of a board of health is six meals a day.

However, the early boom doesn't always catch the nomination.

Never place your clock at the head of the stairs; it might run down.

Tobacco Far North.

Tobacco growing at 55 degrees north latitude would seem an impossibility in America, but in the Odense district of Denmark, which lies between 55 and 56 degrees, the cultivation of tobacco has been taken up by many farmers since the war.

Loganberry Juice May Soon Become Popular Among the "Soft" Drinks in Demand

"Soft drinks"—"soft" in slang meaning "easy to get"—may attain new importance. "Soft" drinks made from fruit juices doubtless will attract many new devotees, who will find that beverages made from pure fruit juices are decidedly healthful, cooling, refreshing and invigorating, says the United States department of agriculture.

Because of its pleasant flavor, the juice of the Logan blackberry, commonly known as the loganberry, is very popular as a beverage. The berry is also used in making jams, jellies and soda-fountain sirups. Methods of extracting and treating the juice are constantly being bettered. This industry, already a large one, is growing rapidly.

Loganberry juice is naturally so sour that it is necessary both to dilute and to sweeten it to obtain a drinkable article. The berry has a characteristic flavor. It somewhat resembles that of the raspberry, both red and black, but is more acid than either.

Adding enough sugar to reduce sufficiently the tartness of the juice makes a product too sirupy to drink, unless it is diluted at the same time. The sirup prepared for soda-fountain use is not diluted until sold over the counter. Some of the sweetened but undiluted juices have been labeled by manufacturers as "concentrated." This description is unwarranted, as the juices have not been concentrated or evaporated, but simply sweetened. They should be properly labeled as loganberry sirups.

Locusts as Food Date Back to the Days of John the Baptist, and Others

It was not necessary for a learned entomologist in the Johns Hopkins faculty to prove the edibility of locusts by eating a few of them and surviving the experiment. For unnumbered centuries these insects have been an occasional, but considerable, part of the diet of millions of people in several parts of the world, and if ever those people hear of the Johns Hopkins man's exploit they will smile superiorly and wonder at the belatedness of his audacity. The history of John the Baptist is not the only recorded instance in which empirical persons have anticipated the scientist.

Of course, locusts are edible; so are hundreds of other insects—thousands of them, probably—and it might not be at all injudicious at this time, when so much of the world's population is going hungry, if more attention were bestowed on what is, after all, the largest of new food sources. Still, the locusts in this country are not in much danger as a result of the professor's revelation, even though he does say that they taste like shrimp.

JUST TO SMILE

Oh, Fudge.
"What's all that noise, all that hubbub in the shops?"
"We manufacture tennis goods."
"Well?"
"And that fellow is making a racket."

Had Only to Act Natural.
Youth—I don't want to take that character. I'll make a fool of myself.
Lady Stage Manager—Well, you said you wanted an easy part.

The Difference.
"What's the difference between baseball and trigonometry?"
"Give it up."
"A woman will pretend to be interested when you're trying to explain baseball to her."

A Desirable Entertainment.
"A successful man must study the faults of others."
"Well, I don't know that it will make a man successful, but it ought to be a delightful study."

The Popular Fad.
"Everybody seems to be affected with it."
"What?"
"The strike fever."
"What's happened now?"
"The wife and children have struck for more spending money."

Sensitive.
Mrs. Newgilt—What is your objection to buying that lovely French bulldog?
Her Husband—I won't stand for a dog that turns up his nose at me.

Bird Census.

According to the conclusions reached by the government investigators who took the federal bird census several years ago, breeding birds prefer to set up housekeeping and raise their families in the thickly inhabited centers of population. Another instance of flocking to the cities!

KEEPING CHICKENS IN TOWN

In many towns and cities there are ordinances restricting the keeping of fowls under certain conditions, namely, that the neighbors shall not be annoyed by the crowing of the male birds and that the poultry house must be located a specified distance from any dwelling. Under such conditions, says the United States department of agriculture, a permit should be easy to obtain and the conditions set forth complied with.

The male bird in the flock is not necessary for the production of eggs and usually the house can be so located and kept clean that it will not annoy the neighbors.

Indian Talk Was Too Much For Fritz When He Tried to Tap the Yankee Wires

There was one code Fritz never got on to in France. That was the Sioux. A soldier just back from France tells of it:

"A good many German spies got over into the allied lines," said the Yank, who was in charge of a communicating battery. "And there was some tapping of lines and listening in by German agents who understood English perfectly. We got around that in a clever way. We put Sioux Indians on the telephones to send and receive orders.

"Ump, glum, hoosha, moo, chunk," an Indian would repeat over the telephone, meaning 'bring up a battery of 75's.'

"Og, gog, pom, hegan, cahcho, rak-ak," would come the answer, which might mean, 'they're starting, will be there in five minutes.'

"I don't know how much of a technical war vocabulary those Sioux had, but Fritz never got wise to the lingo."

How Light Changes Shape of Pupil of Eye of Both Animal and the Human

Nothing is more deceptive than the appearance of a cat's eye. The pupil ordinarily appears as a long, narrow oval or a vertical black line, yet its natural shape is circular. It is a matter of the effect of light. In a bright light our pupils become very small circles, while those of a cat turn into ovals or narrow slits. The general effect is the same in either case—namely, to diminish the quantity of light passing into the eye. Curiously enough, in the larger animals of the cat tribe, such as tigers, the pupil sometimes behaves exactly like a human pupil, and when brightly illuminated contracts into a minute circle instead of becoming linear. In the case of domestic cats, the older the animal the more frequently does the pupil of the eye assume a circular form.

Famous White Sox Second Baseman in His Old Form Both at Bat and Afield

Age is no handicap to Eddie Collins, famous second baseman of the Chicago White Sox. At least the Tarrytown lad has betrayed no sign of decay thus far in the season's campaign, and in the series at the Polo grounds has flashed all his old form at the bat and afield. Collins and Schalk are the



Eddie Collins.

backbone of the Sox, the main spring by which the play of the club afield is directed.

Collins certainly is as fast as he has been through the last few seasons, and although he has not invaded the .300 circle in batting he is sure to arrive up there in the early future. Furthermore, Collins has more to do with infusing a spirit of co-operative combativeness into the Sox than any other individual in the outfit, with the exception of Kid Gleason, the manager, who is a fighter down to the ground and one of the best all around good fellows in the pastime.

POPULAR SCIENCE

The normal number of teeth is 32.

The number of bones in the body is 240.

The weight of your blood is 23 pounds.

A skeleton weighs about 14 pounds.

The human brain is twice as large as that of any animal.

Tobacco leaves treated with the X-ray are thereby cleared of the destructive beetle.