

ALFALFA-SEED PEST RESEMBLES THE GNAT



Alfalfa Seed Field With Check Ridges and Fence Lines Burned Over to Destroy Hibernating Larvae of the Chalcis-Fly.

(Prepared by the United States Department of Agriculture.)

The alfalfa-seed destroyer, known as the chalcis-fly, does its destructive work in clover or alfalfa seeds, from the Gulf coast to the northern limits of the United States, according to the United States department of agriculture's specialist who has personally seen the widespread devastation of this pest. By harvesting severely infested crops, by cleaning fence lines and ditch banks, and by winter cultivation the grower of alfalfa seed may help to control this insect. A new Farmers' Bulletin, (No. 636) entitled "The Chalcis-Fly in Alfalfa Seed," gives the details of these methods of control, and may be had free of charge on application to the department.

The chalcis-fly under the microscope is a formidable-looking insect but when seen in the field it is frequently confused with the gnat. These pests may be seen in great numbers flying over alfalfa-seed shocks and swarming over the sickle bar when the alfalfa is being cut. The eggs are so small as to be invisible to the naked eye and are deposited through the soft, green seed pods directly into the soft seeds when the pods are about half-grown. Immediately upon becoming a fly, the insect eats its way out through the shells of the infested seeds, then through the green pods. Large portions of the seeds are hollowed out in this manner, when they are still green and growing.

The infested seeds which still contain the living larvae of the insect may be recognized by their abnormal shape and usually by the dull brown color. Some of the infested seeds, however, retain their natural color, but they always lack the glossy appearance of normal seeds. The extent to which alfalfa seed is damaged by the fly is not generally apparent, owing to the minuteness of the insect and because its destructive work is accomplished within the growing seeds. The alfalfa-seed grower can only estimate the percentage of his crop destroyed by opening a large

the regular seed fields are sufficiently advanced for oviposition.

This cutting should be done with the harvesting of each hay crop, before the seed crop is grown.

It is sometimes necessary to have two or more irrigation ditches running parallel, making it impracticable to cut the alfalfa between them. In such cases it is economy to fence the ditches and use this land as a small summer pasture, thus preventing the development of alfalfa seed pods and the chalcis-flies.

Winter Cultivation.

In the process of harvesting the seed crop many pods containing infested seeds fall to the ground. Here they remain until the following spring when the hibernating insects emerge, although cultivation with an alfalfa cultivator, at some time late in the fall or in early winter, will sufficiently cover seed pods and will prevent the emergence of most of the adults when the warm weather arrives.

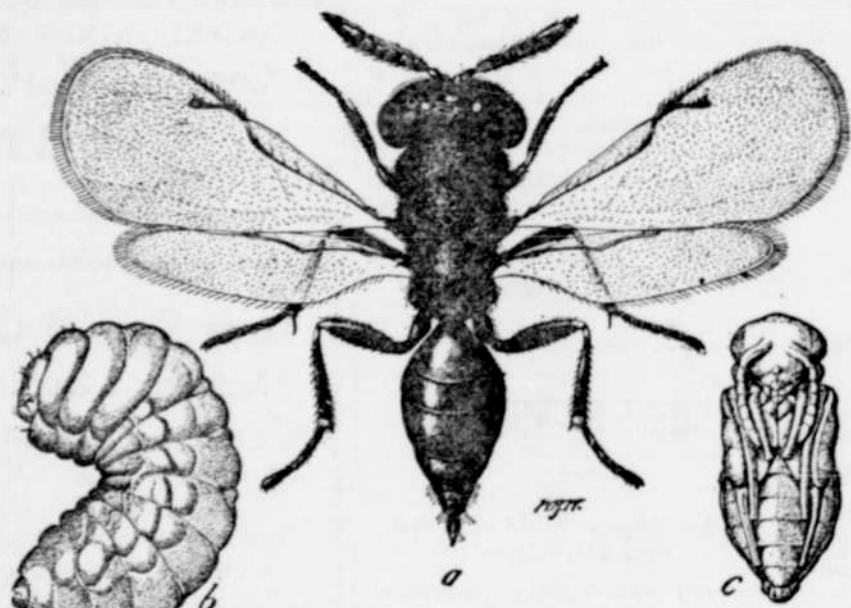
Destroying the Screenings.

After the alfalfa is thrashed the great mass of screenings which is left frequently contains large numbers of seeds infested with hibernating larvae. If the chaff, together with the screenings, is placed in a compost pile for three or four months, so that it will become heated and decay, most of the insect life will be destroyed. Unless it is possible to treat the screenings in this manner they should be burned before the growing season opens in the spring.

Many of the alfalfa seed pods along check ridges and fence lines may be destroyed by burning off the weeds and alfalfa. This should be done either in the fall or early spring. In purchasing alfalfa seed, farmers should insist upon having seed which has been well cleaned after thrashing and should never plant the uncleaned product in new fields.

Easy to Make Good Butter.

The buttermaker should realize that it is just as easy to make good butter as it is to make poor butter. The main secret is to keep the milk



Alfalfa-Seed, or Clover-Seed Chalcis-Fly—A, Adult; B, Larvae; C, Pupa—Much Enlarged.

number of the seed pods and observing the infested seeds.

Harvesting Infested Crops.
An alfalfa field is frequently found with such a severe infestation by chalcis-flies that the grower considers it of insufficient value to be harvested and simply drives in a herd of cows to pasture the crop. With regard to the control of the chalcis-fly for the protection of future seed production, this is a costly mistake. Observations show that many of the pods burst open, while others are trampled to the ground. Here great numbers of infested seeds offer favorable conditions for the hibernation of the chalcis-fly larvae. These, as mature flies, will infest the seed crops the following spring. Under such circumstances the crop should be mowed, removed from the field, and stacked. It may then be used as rough fodder; and if the remaining straw is burned in early spring the hibernating larvae will be destroyed.

Cleaning Fence Lines and Ditch Banks.

The following facts emphasize the importance of cutting the alfalfa along ditch banks and fence lines, as well as in the fields:

1. The earliest seed pods are found to develop on the isolated and vigorous growing plants found in such places.

2. The earliest pods have an especially large percentage of the seeds infested with chalcis-fly larvae.

3. The chalcis-fly larvae are able to pass completely through the first generation in the earliest pods before

utensils clean. Use only good salt. This is an exceedingly important matter. A good way to test it is to dissolve some in hot water. If the salt has a bad flavor it will be easily detected. Sometimes a sediment will be seen in the bottom of the vessel. A bad odor in butter many times is caused by the use of poor salt.

The Kicking Horse.

The cure of a "kicker" is a difficult task. There are many remedies advised, but even the best is sometimes ineffectual. It may arise from vice, or from excessively nervous disposition. One of the common appliances used is to swing a bale of straw behind the horse, so that he may kick until he is tired, without doing injury to himself. The bale will swing to and fro, and irritate to the point of persuasion that there are more profitable vices than kicking.

Sort the Apples.

If apples in the bin or storage cellar are assorted occasionally and the rotten and speckled apples thrown out, it will lessen the number of disease spores among the good apples and check decay. These spores are produced from a fungus which produces rot.

Clean Milk and Butter.

It is impossible to produce clean milk in dirty surroundings, and equally impossible to produce good butter where the milk has been exposed to miscellaneous odors.

Old Lady Number 31

By LOUISE FORSSLUND

Author of "The Story of Sarah" "The Ship of Dreams" Etc.

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CHAPTER XVI—Continued.

The keeper went into the office with a somewhat hurried "Good-night," and soon Abe found himself alone again, the light in the kitchen beyond, no sound in the room save that of the booming of the surf, the rattling of the windows, and now and again the fall of a clinker in the stove.

The old man was surprised to find that he could not fall back into that blissful slumber again. Not sleeping, he had to think. He thought and thought—sober night thoughts—while the oysters "laid like a log in his stomach" and the coffee seemed to stir his brain to greater activity.

"Suppose," said the intoxicated brain, "another big storm should sweep down upon you and the bay should break up, and you and Samuel should be imprisoned on the beach for two or three months with a handful of men-folks!"

"Mool! Mool!" roared the breakers on the shore. "Serve you right for finding fault with the sisters!"

Come to think of it, if he had not been so ungracious of Miss Abigail's concern for him, he would now be in possession of a hop pillow to lull him back to sleep. Well, he had made his bed, and he would have to lie on it, although it was a hard old carpet-covered lounge. Having no hop pillow, he would count sheep—

One sheep going over the fence, two sheep, three—How tired he was! How his bones ached! It's no use talking, you can't make an old dog do the tricks of his puppy days. What an idiot he had been to climb that practise-mast! If he had fallen and broken his leg?

Four sheep. Maybe he was too old for gallivanting, after all. Maybe he was too old for anything except just to be "mollycoddled" by thoughtful old ladies. Now, be honest with yourself, Abe. Did you enjoy yourself today—no, yesterday? Did you? Well, yes and—no! Now, if Angy had been along!

Angy! That was why he could not go to sleep! He had forgotten to kiss her good-by! Wonder if she had noticed it? Wonder if she had missed him more on account of that neglect? Phaw! What nonsense! Angy knew he wasn't no hand at kissing, and it was apt to give him rheumatism to bend down so far as her sweet old mouth.

He turned to the wall at the side of the narrow lounge, to the emptiness where her pillow should be. "Good-night, mother," he muttered huskily. Mother did not answer for the first time in nights beyond the counting. Mother would not be there to answer for at least six nights to come. A week, thought this old man, as the other old man had reflected a few hours before, is a long time when one has passed his threescore years and ten, and with each day sees the shadows growing longer.

Abraham put out his hand time-ehrunken hand and touched in thought his wife's pillow, as if to persuade himself that she was really there in her place beside him. He remembered when first he had actually touched her pillow to convince himself that she was really there, too awed and too happy to believe that his youth's dream had come true; and he remembered now how his gentle, strong hand had crept along the linen until it cupped itself around her cheek; and he had felt the cheek grow hot with blushes in the darkness. She had not been "mother" then; she had been "dearest!" Would she think that he was growing childish if he should call her "dearest" now?

Smiling to himself, he concluded that he would try the effect of the tender term when he reached home again. He drew his hand back, whispering once more, "Good-night, mother." Then he fancied he could hear her say in her soft, reassuring tone, "Good-night, father." Father turned his back on the empty wall, praying with a sudden rush of passionate love that when the last call should come for him, it would be after he had said "Good-night, mother," to Angy and after she had said "Good-night, father," to him, and that they might wake somewhere, somehow, together with God, saying, "Good-morning, mother," "Good-morning, father!" And "Fair is the day!"

CHAPTER XVII.

The Deserter.

At dawn the station was wide awake and everybody out of bed. Samuel crept downstairs in his stocking feet, his boots in his hand, his eyes heavy with sleeplessness, and his wig awry. He shivered as he drew close to the fire, and asked in one breath for a prescription for chilblains and where might Abe be. Abe's lounge was

empty and his blankets neatly folded upon it.

The sunrise patrol from the east, who had just returned, made reply that he had met Captain Abe walking along the surf to get up an appetite for his griddlecakes and salt pork. Samuel sat down suddenly on the lounge and opened his mouth.

"Didn't he have enough exercise yesterday, for macey's sake! Put 'nigh killed me. I was that tired last night I couldn't sleep a wink. I declar', of 'twan't fer that fool newspaper a-comin' out tonight I'd go home ter-day. Yer a-gwine acrost, hain't yer, Havens?"

Havens laughed in response. Samuel glowered at him.

"I want home comforts back," he vowed sullenly. "The beach ain't what it used ter be. Goin' on a picnic with Abe Rose is like settin' yer teeth into a cast-iron stove lid covered with a thin layer o' puddin'. I'm a-goin' home."

The keeper assured him that no one would attempt to detain him if he found the station uncomfortable, and that if he preferred to leave Abraham behind the whole force would take pleasure in entertaining the more active old man.

"That old feller bates a phonograph," affirmed the Irishman. "It's good ter hear that he'll be left anyhow for comp'ny with this storm a-comin' up."

Samuel rushed to the window, for upstairs the panes had been too frosty for him to see out. A storm coming up? The beach did look gray and desolate, dun-colored in the dull light of the early day, with the winter-killed grass and the stunted green growth of cedar and holly and pine only making splotches of darkness under a gray sky which was filled with scurrying clouds. The wind, too, had risen during the night, and the increased roar of the surf was telling of foul weather at sea.

A storm threatening! And the pleasant prospect of being shut in at the beach with the cast-iron Abraham and these husky life-savers for the remainder of the winter! No doubt Abe would insist upon helping the men with the double duties imposed by thick weather, and drag Samuel out on patrol.

"When dew yew start, Havens?" demanded Samuel in shaking tones. "Le's ter hold me. He gets back an' tries ter hold me. He seems ter be so plagued stuck on the life over here, he'll think I must be tew."

But, though Havens had to wait for the return of the man who had gone off duty yesterday morning, still Abe had not put in an appearance when Samuel and the life saver trudged down the trail through the woods of the bay. As he stepped into the scooter Samuel's conscience at last began to prick him.

"Yew sure the men will look arter the old fellow well an' not let him overdev?"

But the whizz of the flight had already begun and the scooter's nose was set toward Twin Cove, her sail skimming swiftly with the ring of the steel against the ice over the shining surface of the bay.

"Law, yes," Samuel eased his conscience; "of course they will. They couldn't hurt him, anyhow. I never seen anybody take so kindly ter hard-enin' as that air Abe."

CHAPTER XVIII.

Samuel's Welcome.

The shore at Twin Cove was a somewhat lonely spot, owing to stretches of marshland and a sweep of pine wood that reached almost to the edge of the water.

Samuel, however, having indicated that he wished to be landed at the foot of a path through the pines, found himself on the home shore scarcely ten minutes after he had left Bleak Hill—Havens already speeding toward his home some miles to the eastward, the bay seemingly deserted except for his sail, a high wind blowing, and the snow beginning to fall in scattered flakes.

Samuel picked up his grip, trudged through the heavy sand of the narrow beach, and entered the sweet-smelling pine wood. He was stiff with cold after the rough, swift voyage; his feet alone were hot—burning hot with chilblains. Away down in his heart he was uneasy lest some harm should come to Abe and the old man be caught in the approaching storm on the beach. But, oh, wasn't he glad to be home!

His house was still half a mile away; but he was once more on good, solid, dry land.

"I'll tell Blossy how that air Abe Rose behaved," he reassured himself, when he pictured his wife's astonished and perhaps reproachful greeting, "an' then she won't wonder that I had ter quit him an' come back."

He recollected that Angy would be there, and hoped fervently that she might not prove so strenuous a charge as Abraham. Moreover, he hoped that she would not so absorb Blossy's attention as to preclude a wifely ministering to his aching feet and the application of "St. Jerushy Ile" to his lame and sore back.

The torture of the feet and back made walking harder, too, than he had believed possible with the prospect of relief so near. As he limped along he was forced to pause every now and again and set down the carpetbag, sometimes to rub his back, sometimes to seat himself on a stump and nurse for a few moments one of those demon-possessed feet. Could he have made any progress at all if he had not known that at home, no matter if there was company, there would at least be no Abe Rose to keep him going, to spur him on to unwelcome

action, to force him to prove himself out of sheer self-respect the equal, if not the superior, in masculine strength?

Abe had led him that chase over at the station, Samuel was convinced, "a-purpose" to punish him for having so soundly berated him when he lay abed. That was all the thanks you ever got for doing things for "some folks."

Samuel hobbled onward, his brow knit with angry resentment. Did ever a half-mile seem so long, and had he actually been only twenty-three hours from home and Blossy? Oh, oh! his back and his feet! Oh, the weight of that bag! How much he needed sleep! How good it would be to have Blossy tuck him under the covers, and give him a hot lemonade with a stick of ginger in it!

If only he had hold of Abe Rose now to tell him his opinion of him! Well, he reflected, you have to summer and winter with a person before you can know them. This one December day and night with Abe had been equal to the revelations of a dozen seasons. The next time Samuel tried to do good to anybody more than sixty-five, he'd know it. The next time he was persuaded into leaving his wife for over night, he'd know that, too. Various manuals for the young husband, which he had consulted, to the contrary notwithstanding, the place for a married man was at home.

Samuel sat down on a fallen tree which marked the half-way point between his place and the bay. The last half of the journey would seem shorter, and, at the end, there would be Blossy smiling a welcome, for he never doubted but that Blossy would be glad to see him. She thought a good deal of him, nor had she been especially anxious for that week of separation.

His face smoothed its troubled frowns into a look of shining anticipation—the look that Samuel's face had worn when first he ushered Blossy into his tidy little home and murmured huskily:

"Mia! Darby, you're master o' the vessel now; I'm jest fo'castle hand."

Forgetting all his aches, his pains, his resentments, Samuel took a peppermint lozenge out of his pocket, rolled it under his tongue, and walked on. Presently, as he saw the light of the clearing through the trees, he broke into a run—an old man's trot—thus proving conclusively that his worry of lumbago and chilblains had been merely a wrongly diagnosed case of homesickness.

He grinned as he pictured Abe's dismay on returning to the station to find him gone. Still, he reflected, maybe Abe would have a better time alone with the young fellows; he had grown so plagued young himself all of a sudden. Samuel surely need not worry about him.

More and more good-natured grew Samuel's face, until a sociable rabbit, peeping at him from behind a bush, decided to run a race with the old gentleman, and hopped fearlessly out into the open.

(TO BE CONTINUED.)

MADE UP OF SMALL THINGS

Even the Most Insignificant Words and Acts May Be Productive of Joy or the Reverse.

A wild bird's song is a little thing—lost in the depths of a frowning sky. And yet as it falls on a listening ear and leaves its message of melody, earth's green seems brighter and life is sweeter, all through an autumn day.

The coo of a babe is a little thing—meaningless sound from a vacant mind. But 'tis the only sound that all nations heed; the one clear language all races know.

A mother's love is a little thing—too soon, alas, forgot. But it typifies to blind humankind the love and trust and hope divine that bear with patience calm and sweet the wilful wrongs in these lives of ours.

A passing smile is a little thing—lost in a world of toil and care. And yet the soul with gloom oppressed and the life grown wearied with burdens hard will happier be in the after-glow of a smile that is warmly kind.

A kindly word is a little thing—a breath that goes and a sound that dies. But the heart that gives and the heart that hears may know that it sings and sings and sings till at last it blends with the wild bird's song, and the coo of babes in what men call the celestial choir.—Utica Saturday Globe.

Recovered Napoleon's "Loot." Perugia, who stole the Mona Lisa, is not the first who for patriotic reasons has despoiled the Louvre—the great picture gallery of Paris, which acquired the majority of its treasures by "patriotic" plundering. In 1815, after the fall of Napoleon, the allied powers of Europe gave orders that the art treasures carried off by the conqueror should be restored to their original owners. Fifteen states sent commissioners to Paris to claim their property, and more than 2,000 pictures were taken from the Louvre, together with almost innumerable statues, ornaments, knickknacks, and so forth. The gallery was left with only 270 pictures and had to be closed for a while until the vacant spaces could be filled by gift or purchase.

Limiting His Credulity. "Do you believe that George Washington chopped the cherry tree?" "Yes," replied Mr. Growcher; "I'm willing to believe anything they tell me about American politics, provided they don't put it in a party platform."

Give Yourself a fair Chance

The thrill of health and vigor can only be experienced when the digestion is normal, the liver active and the bowels regular. Any disturbance of these functions should suggest an immediate trial of

HOSTETTER'S STOMACH BITTERS

It is a tonic, appetizer and strength maker of well known ability, and will help Nature restore health and vigor to the entire digestive system.

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75c the suit. If your dealer cannot supply you, we will send them, charges prepaid on receipt of price, 75c each. A NEW FREE If They Suit Made By Levi Strauss & Co., San Francisco

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Almost Perfect Ideal.

A faithful friend of all that is best, a brave sufferer from incurable burdens, in a private letter sends this confession, which we commend to those more favored of circumstances, less consecrated in the centerstances of life: "My ideal is every day to spread a little truth, a little kindness, a little beauty, but alas, how often I fail!"

Dr. Pierce's Pleasant Pellets regulate and invigorate stomach, liver and bowels. Sugar-coated, tiny granules, easy to take as candy.

When You Give Castor Oil.

Pour the oil into a pan over a moderate fire, break an egg into it, and stir it up. When thoroughly mixed, flavor with a little salt, sugar or currant jelly.

MRS. WILLIAMS' LONG SICKNESS

Yields To Lydia E. Pinkham's Vegetable Compound.

Elkhart, Ind.:—"I suffered for fourteen years from organic inflammation, female weakness, pain and irregularities. The pains in my sides were increased by walking or standing on my feet and I had such awful bearing down feelings, was depressed in spirits and became thin and pale with dull, heavy eyes. I had six doctors from whom I received only temporary relief. I decided to give Lydia E. Pinkham's Vegetable Compound a fair trial and also the Sensitive Wash. I have now used the remedies for four months and cannot express my thanks for what they have done for me.

"If these lines will be of any benefit you have my permission to publish them."—Mrs. SADIE WILLIAMS, 455 James Street, Elkhart, Indiana.

Lydia E. Pinkham's Vegetable Compound, made from native roots and herbs, contains no narcotic or harmful drugs, and to-day holds the record of being the most successful remedy for female ills we know of, and thousands of voluntary testimonials on file in the Pinkham laboratory at Lynn, Mass., seem to prove this fact.

If you have the slightest doubt that Lydia E. Pinkham's Vegetable Compound will help you, write to Lydia E. Pinkham Medicine Co. (confidential) Lynn, Mass., for advice. Your letter will be opened, read and answered by a woman, and held in strict confidence.