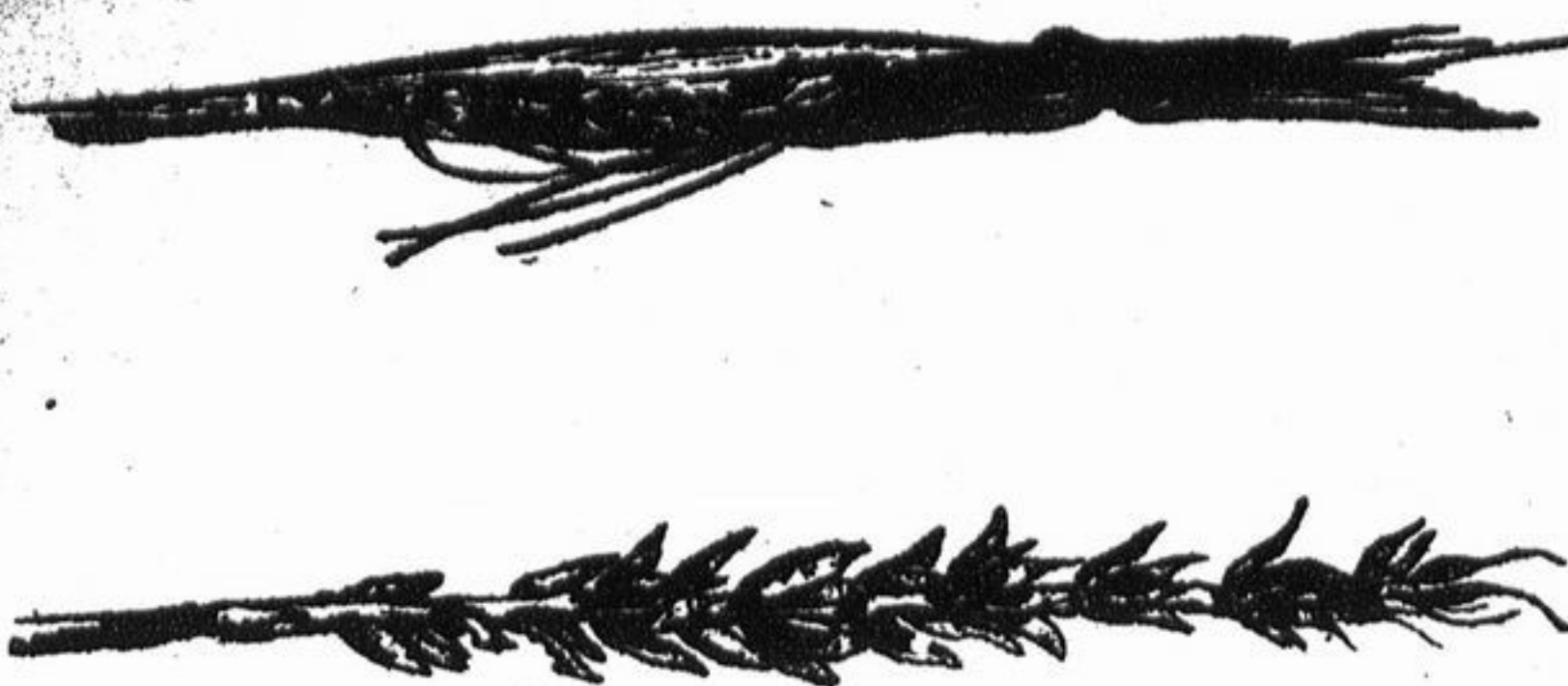


INJURY BY WHEAT-HEAD ARMY WORM



Head of Darley and Wheat Injured by Wheat-Head Army Worm.

(By F. L. WASHBURN.)

Last year a great deal of timothy seed in the northern states was destroyed by the species of army worm known as the "Wheat-Head" worm. The injury was most severe on high sandy soil. In every case investigated, however, it was found that the pest had its origin in old timothy fields that had been allowed to run four years or more without being plowed. After the timothy heads are eaten, the worms turn their attention to oats, wheat or corn; traveling in an army from one field to another—hence their name.

They appear to be somewhat subject to the attacks of parasites; and are undoubtedly, in common with other caterpillars, devoured by predaceous beetles, by birds, and die on account of fungous or bacterial diseases. Nevertheless, these factors simply serve to keep them within bounds, and it is absolutely necessary, when a farmer is confronted with a horde of these worms stripping his timothy field, and preparing to march to grain fields, to know what to do and to realize that whatever is to be done must be done without delay in order to be effective.

Fall plowing and the rotation of crops, sovereign remedies for many field-insects, are valuable here. If farmers would plow up their timothy fields at least once in three years, it would be a help in connection with this or any other insect which found there an undisturbed breeding ground. Another year, quite possibly, this army

worm might not originate in timothy, but be found beginning its depredations on some other crop. Its repression, therefore, appears to be dependent upon proper farm practice. In cases of serious infestation, as in the present instance, when a farmer's crop is threatened by these worms, and the land is in a condition to allow it, he should plow one or two deep furrows across the line of march of the worms, the steep side of the furrows toward the crop to be protected. The worms collect in the furrows and can be killed with kerosene, or better, with crude oil.

If post-holes eight or ten inches deep are made at intervals in these furrows, they form traps into which the worms fall. Or the ditch or furrow may be partially filled with straw, which may be wet with kerosene and burned after the worms have collected thereon.

Fields where they are entering the soil to go through the resting stage should be plowed—harrowing is not sufficient. Co-operation in the attack is necessary; for there might remain on one man's place enough worms to lay waste the entire neighborhood later on if every one did not take preventive measures. Clean culture along fence rows and elsewhere is desirable, since the worms also feed on plants other than timothy, and may breed on wild grasses by the roadside. The presence of this worm on cured hay does not poison it for stock, as some farmers have supposed.

PLAN FOR STACKING COWPEA HAY GREEN

Barn Room Is Not Always Available and Much of Forage Crop Is Lost.

It is so very difficult to cure cowpea hay in the shock or windrow, and when cured it is so difficult to keep in a stack, that very little of it is put up out of doors. Barn room is not always at hand, therefore much of this valuable forage crop is lost or indifferently cared for. By following a simple plan, however, this hay can be cured and kept in stacks without losing any shattered leaves or having it mold, according to H. F. Grinstead in the Farm and Home.

Set a pole in the ground where you want a stack. Throw a little brush around the pole to begin stacking, then stack the pea vines as soon as wilted around this pole, making the stack not more than eight feet in diameter. When you have reached a height of four feet nail two strips six feet long to the pole at right angles, then begin tacking on these, and when you have piled on another four feet nail another pair of the strips. Don't get on the stack, as your weight would break through.

When you reach the top, cover with a stack cover or grass hay. In a day or two the hay will settle, leaving an air space under each of the supports so that air can circulate freely. The hay will not mold and can be fed from the stack. This plan is practiced successfully in the south, where pea hay is a staple forage crop.

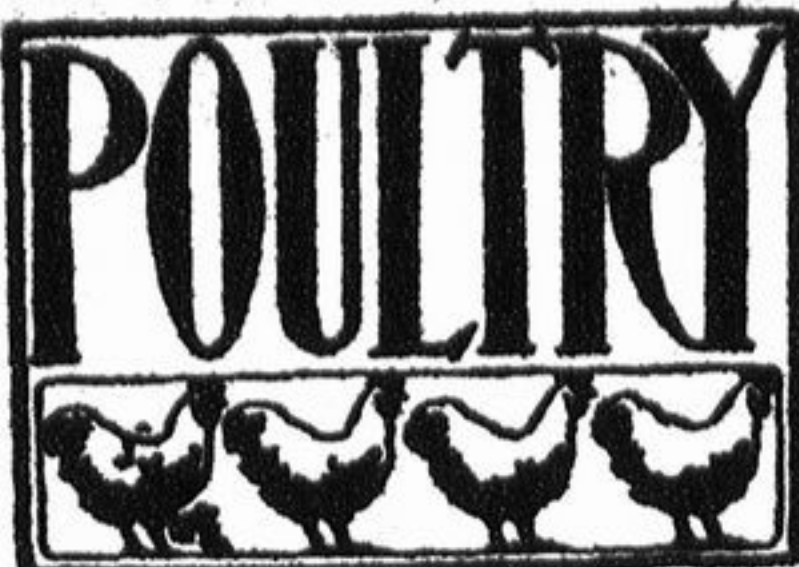
FREE RANGE NEEDED BY YOUNG CHICKENS

Gardens are in Such Shape in Fall That Fowls Will Do More Good Than Injury.

Where hens or chicks have been confined in small yards during the spring and summer they should be turned out on free range now, if possible. A yard which has been in use all the season will by this time need attention. In most cases it is absolutely bare, and well contaminated. The chickens in it are not receiving a fair chance.

Chickens are in such shape that the chickens will do them little damage now, and to turn the hens loose will reduce the cost of the feed bill, as well as make them happy. In case several varieties are kept a good plan is to turn each flock out at least one or two days a week, or better still, a few hours each day. This method will give them all a range without mixing the flocks.

The yards themselves should be plowed or spaded up, and this fall sow some crop, such as oats, rye or wheat. The crop will purify the soil, as well as furnish green food for the flocks. It is only by careful attention to these details that hens can successfully be kept in small

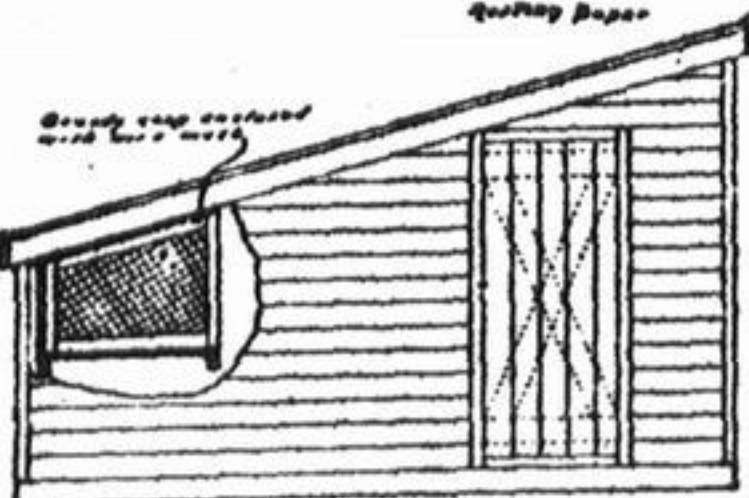


CARE OF THE POULTRY HOUSE

Lice and Mites Cause More Losses Than All Other Things Combined—Spray Is Urged.

(By J. S. JEFFREY.)

It is quite possible to have the best poultry kept in well-built houses, well fed, and still not get any profit or pleasure from them. In too many cases where a good start has been made the house is neglected and allowed to become filthy and infested with mites. It may be said that filth and mites generally go together, for while a house that is kept fairly clean



Side Elevation of Poultry House.

may be infested with mites, it is very seldom that a dirty house will be found to be free from these pests.

Lice and mites cause more losses among poultry than all other things combined.

Poultry houses should be so arranged inside that the poultryman can keep down the mites without an undue expenditure of time and energy. Mites live in a house and must be killed there. Dusting the hens will never get rid of them.

The best means of getting rid of mites in the houses is to spray thoroughly with kerosene emulsion. This should be done twice with an interval of from five to seven days between the sprayings.

The emulsion is made as follows: Cut up one pound of soap and dissolve it in hot water; while the water is hot, stir in two gallons of kerosene and continue stirring for fifteen to twenty minutes. It is important to have the kerosene, soap and water well mixed, especially if it is not to be used at once. To this mixture add seventeen gallons of water. This



Two-Compartment Trap Nests, Showing "Stop Louse" Roost Hangers Above.

makes a 10 per cent. emulsion. Some recommend 15 per cent., but we have found 10 per cent. efficient in killing the mites.

Kerosene used on the roost once a week in hot weather will help to keep down both mites and lice. If put on a short time before the hens go to roost, some of it will get on the feathers and will kill and drive away lice. Care must be taken not to get too much on the fowls, or it will blister them and this will stop the hens from laying just as much as the lice will.

KEEP TAB ON AGE OF FOWLS

Enables Poultryman to Cull Out Hens That are Unprofitable—One Method Favored.

It is mere guess work to tell the age of a hen after she has passed the pullet stage. To the good poultryman it is important that the exact age of every fowl on his premises be known. Hens that are past the age for profit should be culled out and their places taken by the younger stock. Legbands with numbers may be used when the pullets arrive at maturity, and, if records are kept, the identity of each fowl is easily established. A less elaborate method, and one which no poultrykeeper can afford not to follow, is to punch a hole in one of the four webs of the feet, each web representing a certain year. Special punches for this purpose may be purchased from any poultry supply house, but a small sized leather belt punch can be used to good advantage. The hole is punched very easily when the newly hatched chick is first taken from the nest or incubator. All of one season's chicks may be marked on the same web, although if special hatchings are to be kept separately as high as fifteen combinations can be used. If properly done the hole or traces of the scar will always remain and the identity of the fowl cannot be lost.

Size of Poultry House.

As to the proportionate size of the house to the number of fowls kept, only he who remembers that "there is more profit in a house half full than in a house twice full" is safe from blundering at this point. The most level-headed practical poultrymen insist upon ten square feet per fowl. Contrast this with the room afforded 100 fowls in a 12x20 house, less than 1-1/3 feet of space to each (which is a common sight) and judge as to the chances for eggs in the latter case and take warning.



VALUE OF POULTRY PRODUCTS

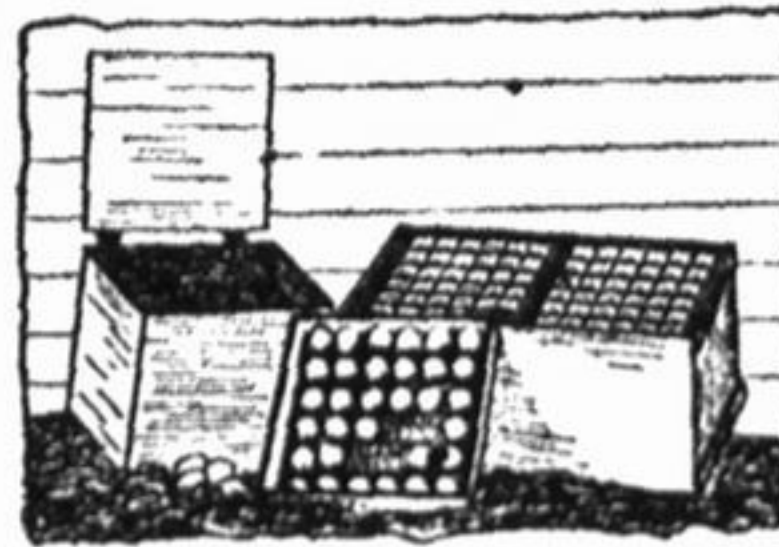
Poor Methods of Preparing and Marketing Deprive Poultryman of Much of His Profits.

(By F. H. STONEBURN.)

Poultry products of various kinds form one of the greatest crops produced upon American farms. The ever increasing number of farms and plants devoted exclusively to poultry keeping produce large amounts of high grade goods, although these are inconsiderable when compared with the vast supply coming from the small flocks scattered upon the farms and in the villages throughout the country. Unquestionably the great bulk of poultry products has come in the past from the latter sources, and this condition is likely to continue.

Many farmers concede that their flocks of poultry yield them a fair profit, although any intelligent observer has to spend a short time in investigating the great markets to learn that poor methods of preparing and marketing alone prevent the producer from receiving much greater returns. The majority of poultry raisers fail to realize that their profits could be largely increased, first, by the production of better and more uniform goods; and second, by improved methods of disposing of them.

Not infrequently it is stated that high-grade goods sell themselves, and in a sense this is true, but it is not enough to turn out superior goods; much is lost if they are not marketed in the most careful manner. The poultry man who receives the highest quotations for his prod-



Different Styles of Egg Cases.

ucts throughout the year is the one who studies "how, when and where" to market. He learns that during certain months in each year there is a shortage in different kinds of poultry products, and he plans to produce as large a quantity as possible of these products during the season of scant supply. He then ascertains in which markets he can dispose of these goods to best advantage, and prepares and packs them according to the requirements of those markets.

Poultry products are concentrated and valuable, although not extremely perishable. Therefore, improved means of transportation make it possible for the poultryman to place his goods in the best markets without greatly increased expense.

Feed During Molting.

The molting of fowls is a natural process and not a disease and no medical treatment is necessary or desirable. Feed molting fowls just as you would feed them at any other time, only remember that molting is done during hot weather, and less carbonaceous food should be given than when the weather is cool. Oats, wheat, cut clover or alfalfa or any leguminous seeds may be used more because the weather is warm than that fowls are molting. Any sort of green food is good; so are beets, turnips, bulbs or tubers of any sort that they will eat. They should have little corn or other heat-producing food.



Sow turnips for poultry food. This is the month to wage war on lice.

Almost all varieties of geese make good mothers.

Dry bran makes a good chicken feed the year round.

There should be shade provided in every poultry yard.

Feed sweet milk occasionally during the summer months.

Overfeeding is a common cause of loss among turkeys.

A turkey cannot grind its food without having sharp grit.

Oats are the best feed for growing bone and large frame.

Summer eggs that go to market must be above suspicion.

Geese live long, but it is not wise to keep ganders over four years old.

Geese have been bred for table use at least since the days of ancient Egypt.

A turkey when a few weeks old grows very fast and has a voracious appetite.

If you want large, healthy chicks, don't crowd more than twenty-five in one coop.

Yard the young stock during the day and house at night to stop summer losses.

Do not get the idea that there is no money in poultry unless you raise poultry on a large scale.

Feed for growing pullets and cockerels should consist largely of cracked oats with the hull removed.

Select a warm place away from the windows for roosts, and have an inclined platform under them to catch the droppings.

A SAFETY-DEPOSIT BOX FREE

There should be a safety-deposit box key in every Du Page county home. Think of the losses and complications that would ensue upon the destruction by fire of all the deeds, wills, insurance policies and other like papers that are now exposed to that danger—tucked away in trunks, desks, and dresser drawers!

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