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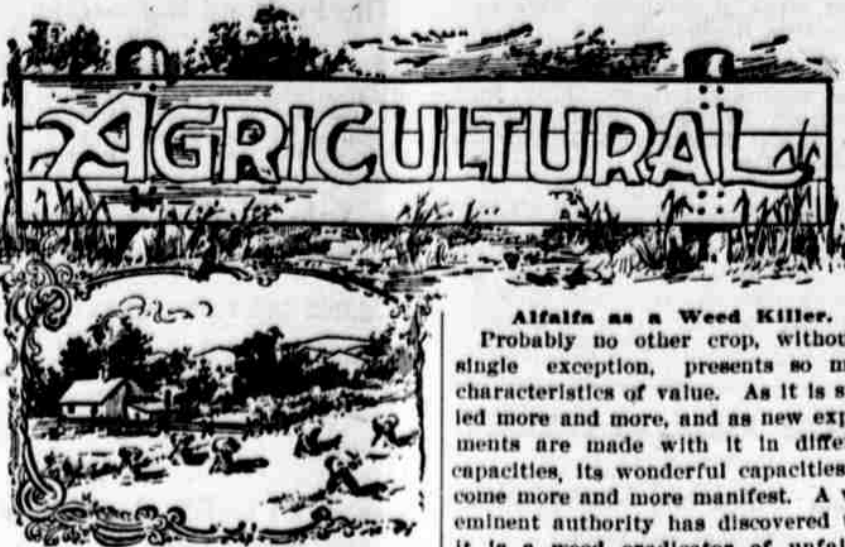


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**Annual Losses Due to Insects.**  
If the power of the mosquito had  
not been proved to us beyond a doubt,  
we would be inclined to regard the es-  
timate of \$700,000,000 annual loss to  
our farming interests caused by in-  
sects, which has been made by the De-  
partment of Agriculture as too start-  
ling to be true. The following table  
shows the basis of the calculation:

Products	Annual Value	P. C.	Amount of Loss
Cereals	\$2,000,000,000	10	\$200,000,000
Hay	500,000,000	10	50,000,000
Cotton	900,000,000	10	90,000,000
Tobacco	60,000,000	10	6,000,000
Truck crops	265,000,000	20	53,000,000
Sugars	50,000,000	10	5,000,000
Fruits	135,000,000	20	27,000,000
Farm forests	110,000,000	10	11,000,000
Miscellaneous crops	58,000,000	10	5,800,000
Animal products	1,750,000,000	10	175,000,000
Total	\$5,551,000,000		\$505,100,000
Natural forests and forest products			100,000,000
Products in storage			100,000,000
Grand total			\$705,100,000

Such an immense sum being well worth the saving, the department has in its employ a large staff of men who are studying the life history of the pernicious insects to find out where they are vulnerable.

The work has been going on for some years and much progress has already been made. The cotton worm which formerly levied an annual tax of \$30,000,000 on the cotton crop, is now controlled by sprays; it has been proven that the ravages of the Russian fly which sometimes have reduced the wheat acreage in Ohio 40 per cent and in Indiana 60 per cent besides greatly impairing the yield of the remaining acreage, can be considerably checked by planting wheat at seasons when the fly is not so rapacious; the codling moth is controlled by arsenical sprays and \$20,000,000 worth of apples saved as a result.

The orange and lemon orchards of California have been relieved of the white scale which threatened to destroy them, by the importation from Australia of the ladybird, a natural enemy of the scale. Many other instances could be given of the wisdom of watching the insects.

**Cider-Making.**

The Apple Specialist, in answer to an inquiry, gives the following instructions how to make cider and keep it sweet:

"In order to make cider the juice must be extracted from the apples. This is done by grinding the apples into a pulice and thus pressing the juice out. The pulice is laid up in hoops and held in place by old sackings made by ripping gunny sacks. It is laid up in cheese form, one above the other, and pressure applied at the top. The cider works out through the sackings and is caught in a tub. Hand cider mills are made that are excellent for the work, and sweet cider may be had at any time. There is no way to keep cider sweet without racking it off, drawing it from one barrel to another several times, letting it run through several thicknesses of flannel to take out the sediment. It must be allowed to run very slowly so as to keep all sediment in the bottom of the barrel. When thoroughly purified the barrel must be plugged tight and kept in a cool place. By boiling and skimming the cider it will keep sweet, but has a slight cooked taste. We have made thousands of barrels of cider and have tried all kinds of schemes to keep it sweet and have found nothing equal to racking off. It is a slow process, however, and unless well done will not prove effectual."

**Four-Row Corn Marker.**

The following suggestion, which seems a good one, comes from a farmer who has built and used one. He says: "This will make four marks at a time on ridges or in furrows. To turn at the



FOUR-ROW MARKER.

end of rows, pull gang pole out of hole, lay it back, fold up outside runners, and you have just two runners to turn, the same as an ordinary sled. The sketch will clearly show the construction of the marker. On stumpy ground, raise the outside runners as when turning, and go right along.

**Farm Notes.**

One-fourth of the dairy cows of the country do not pay for their feed, and more than half of them do not return any profit.

In nine months 4,154,181 dozen eggs, valued at \$805,437, were exported from the United States, double the number sent out during the same period last year.

**Alfalfa as a Weed Killer.**

Probably no other crop, without a single exception, presents so many characteristics of value. As it is studied more and more, and as new experiments are made with it in different capacities, its wonderful capacities become more and more manifest. A very eminent authority has discovered that it is a weed eradicator of unflinching power. This will seem like contradiction to readers who have been cautioned about weeds, and which will prove more destructive to alfalfa than any combatable influence. Nevertheless it is strictly true that the plant is the greatest destroyer of weeds known. This comes not so much from any quality contained in the alfalfa plant, but from the inability of the weeds to endure having their heads cut off so many times in summer close to their feet. The most strenuous weed soon will succumb to this harsh treatment, while the alfalfa plant will thrive all the better the more it is cut. If weeds can be kept back from choking the young alfalfa plants until they, the alfalfa plants, are tall enough to be mowed, the question of weeds in the particular parcel of ground is settled. Therefore, it is wise to select a weedy piece of ground for the alfalfa field, but before sowing the seed every precaution should be taken to kill as many weeds as possible. This can best be done by simply following the oft-repeated injunction to thoroughly prepare the seed bed before sowing the seed. If this be done, and the tract harrowed and rolled after plowing at a time when the tiny weeds begin to show green over the field, and again just before time to sow, there will be the cleanest field on the farm before the year is out. There are many weed-infested farms and many farmers who have despaired of ever getting rid of the weeds. Alfalfa suggests the means of riddance.—C. M. Gluther in Agricultural Epitomist.

**Turkey Which Sold for \$175.**



Here is a fine specimen of a Bronze Tom Turkey, bred in Massachusetts. He is 3 years old, and sold for \$175.

**Dry Earth as a Disinfectant.**

It is well known that fine, dry dirt is one of the best of absorbents and disinfectants. It is also plentiful, and costs nothing but the labor of handling. It makes excellent bedding, if covered over with a few inches of straw, and it really keeps the cows clean, even when used in the stalls without straw, as it is easily removed from the hair with a brush. A stall bedded with dry earth can be cleaned out in a much shorter time than when the earth is not used, and, as dirt absorbs the liquids and gases, quite a saving is effected in that manner. Its use goes beyond the stall. As the stable should be cleaned daily, quite a large quantity of dry earth will be used in the course of a year, and it will necessarily be added to the heap itself, yet its presence therein will double the value of the manure by preventing loss of fertilizing material. It is a better absorbent than straw or corn stalks, and is easily handled when the manure is hauled to the fields.

**Testing Individual Cows.**

A circular by the Illinois Station emphasizing the importance of studying the production of individual cows contains records for one year of eighteen dairy herds in Illinois, including 221 cows. The average production was 5,616.99 pounds of milk and 220.03 pounds of butter fat. The best herd averaged 350.17 pounds of butter fat and the poorest 142.05 pounds. The best ten cows averaged 388.75 pounds of butter fat and the poorest 10,109.42 pounds. It is believed that at least one-third of the cows in the ordinary herds are practically unprofitable. A marked improvement was observed in herds where grading had been practiced. It was found possible to remove five cows from a herd of ten and thereby increase the profit \$7.02 per head.

**Milk Fat.**

Of 519 samples of whole milk analyzed by a Canadian station, forty-five were pronounced adulterated and eighty-five doubtful. This was more unfavorable than the results obtained in previous years. Twenty-nine samples of cream examined showed percentages of fat ranging from 12.03 to 33.51. The author believes that the following standard should be established in Canada: Whipping cream not less than 25 per cent fat, and table cream not less than 17.5 per cent.

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