

## KILL OUT CANADIAN THISTLE

Weeds Are Difficult to Eradicate, as They Have Underground Stems—Mow and Plow.

Canadian thistle and sow thistle are hard to kill, as they have underground stems from which new plants are sent up. A piece of this stem if cut off and given the right conditions will form a new plant. The first step in the eradication is to mow the plants, then plow them under and disk the land as often as new shoots appear. Keeping the top from growing will in time kill the roots and underground stems. Growing a crop of corn in hills and cultivating thoroughly both ways and hand-hoeing the hills is another way of eradication. Getting rid of the patches of Canada thistle and sow thistle now will save a lot of work a little later.



Canada Thistle.

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## MOST EFFECTIVE ROAD TOOL

Drag Can Be Used in Maintaining Public Highways—They Are Easily and Cheaply Made.

The most effective tool which can be used in the maintenance of earth roads is the road drag. The first drags were made more than 50 years ago, but it is only during the last few years that they have come into general use. They are easily and cheaply made, easily operated and accomplish wonders if properly used. Every mile of earth road in the state of Texas should be maintained with a drag, and if the time and money wasted under the present system of "working the roads" (this does not mean that all time and money so spent are wasted) were used in dragging the roads, our states would have some of the best earth roads in America.

## GROW LARGE CROPS OF OATS

Farmer Should Provide Feed for Horses, Sheep, Cows and Other Stock—Plan is Outlined.

The farmer who raises horses and sheep, feeds dairy cows and fattens beef cattle, annually should grow large crops of oats. They should get ripe enough to be cut and bound by the binder, so when dried out in the shock the sheaves will not mold when stored in the barn. These things attended to, with some kind of power and a modern straw cutter in the barn, the entire crop, as needed, should be cut up quite fine and fed. Fed in this way, the stock eats up almost all the straw, and the grain entire.

## DRESSED WEIGHT OF SWINE

Shown by Experiments That Animals Average 76.44 Per Cent Fasted Live Weight.

A number of experiments have shown that the dressed weight of hogs is on an average of 76.44 per cent fasted live weight.

When hogs are fed corn or other concentrated fat-producing feeds the dressed weight may be 80 per cent of the live weight. On this estimate the blood constitutes 2.5 to 3 per cent of the live weight; the liver, 1.3 to 1.5 per cent; heart, 2 per cent; stomach and contents, 4.5 to 5 per cent; intestines, 6.5 to 8 per cent; kidneys, 3 per cent; spleen, 1 per cent; intestinal fat, 1 to 2 per cent; kidney fat, 4 to 4.5 per cent.

## PREPARING NOW FOR SPRING

Winter Is Good Time to Rig Up Several Three and Four-Horse Eveners on Implements.

In view of the probable shortage of farm labor next spring, now is a timely occasion to rig up several three and four-horse eveners to be used on the farm implements. One man with a four-horse team will do almost as much work in preparing the spring seedbed as two men, each using a two-horse team.

## RAPID INCREASE IN ALFALFA

Has Resulted in More Careful Study of Its Possibilities as Food for All Farm Animals.

The rapid increase in the production of alfalfa in the United States during recent years has resulted in a more careful study of its possibilities as a food for all classes of live stock. Formerly it was used primarily as a cattle feed, but now it is used as a feed for horses, swine and sheep.

## WEEVIL IN BEANS AND PEAS

Eggs of Insects Are Easily Destroyed by Fumigation and Bisulphide of Carbon.

The weevil which makes the buggy beans and peas lays its eggs in the maturing beans and peas in the pod during the late summer. The eggs are not recognized by the naked eye, and they do not generally hatch until some time after harvest. The eggs are easily and quickly destroyed by fumigation and bisulphide of carbon, without injury to the beans or peas.

Place the beans or peas in an airtight vessel—a stone crock, a barrel, box or bin. Place a shallow dish on top of the beans, and in this pour a quantity of bisulphide of carbon, which is a heavy, colorless liquid, having a vile smell. The fumes are heavy and will quickly sink through the mass to the bottom. They are explosive, so one must be careful not to bring a light in contact with them.

Cover the vessel quickly and leave it for 24 hours. A tablespoonful will be enough to fumigate the contents of a five-gallon jar and one ounce is enough for two bushels. All beans and peas should be treated in this way, after which they can be kept for an indefinite period without injury.

## SOIL PLANT FOODS REMOVED

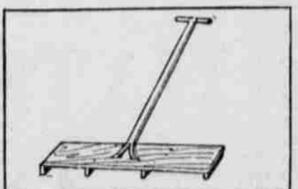
Experiments Add Valuable Information for Farmer in Use of Commercial Fertilizer.

A great many experiments, carefully controlled, have been made to determine the amount of soil plant food removed by crops, and while in a general way they are more interesting than practically instructing for the average farmer, yet they add valuable information along the line of the use of commercial fertilizers. The results obtained from the corn experiments show an average use by full crops of 80 pounds of nitrogen, 38 pounds of phosphoric acid, and 78 4-10 pounds of potash. The husking corn uses more nitrogen in proportion than the ensilage corn, but this is no doubt due to the prolonged feeding season, developing and ripening the ears, the ensilage being cut in green stage. There is, however, quite a wide range shown in some of the tests, which is apparently due to the greater availability of the soil ingredients. For instance, in full crops of both ensilage and husking corn its potash has been shown varying from 60 to 100 pounds to the acre of crops, while the nitrogen and phosphoric acid maintain their level average.

## HANDY LITTLE SEED MARKER

Implement Will Be Found of Great Convenience in Garden—Straight Lines Essential.

The little seed marker shown in the illustration will be found very useful in garden work. The markers which should be in the form of sled runners are placed 12 inches apart, an extra set of lines can be run through the first. It is important to have perfectly straight lines for planting all garden stuff in order to save ground, to say



Handy Seed Marker.

nothing of the good appearance of the garden, and this can be accomplished in no other way except by the use of a marker. In drawing the first line the ground should be squared up accurately and a string stretched at one side as a guide for the marker. It is a good plan to use a line for all other marks as well, setting it exactly 18 inches from the last mark.

## TO ERADICATE QUACK GRASS

Small Patches Can Be Covered With Tar Paper or Forked Out—Follow Disk With Harrow.

The following will eradicate quack grass:

For small patches cover with tar paper or fork it out. For a large area first mow it, then plow it under and disk about once a week till fall. Sometimes it pays to follow the disk with the harrow. It will sometimes be found necessary to plow it again at the end of the season. Corn is a good crop to put on this land the following year. If there are any stray plants they can be dug out.

## TROUBLE IN FINDING LABOR

Whole Proposition Should Be Studied by Farmer in Winter With View to Economizing.

Some crops require much more labor than others and this factor should be considered by growers who have difficulty in finding labor. The small, quick-perishing crops, such as radishes and lettuce, require much more labor than others like cabbage, sweet corn and cucumbers. The whole proposition should be studied carefully during the winter months with a view to economizing in the employment of labor and utilizing labor to the very best advantage.

## WORMS IN HOGS ARE INJURIOUS

Infected Animals Develop Into Pot-Bellied Runts.

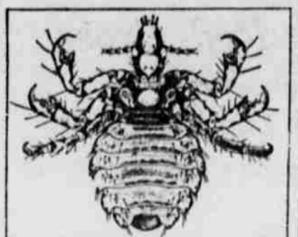
### SUCH PIGS DO NOT THRIVE

Mixtures Containing Charcoal, Copperas, Etc., Are Believed to Be of Value as Preventives—Santonin Is Scarce.

(Prepared by the United States Department of Agriculture.)

Intestinal worms are common in hogs and are particularly injurious to growing pigs. Insufficiently fed, neglected pigs living in dirty pens and yards, fed from filthy troughs, drinking contaminated water, bathing in old hog wallows, and rooting and sleeping in manure piles and stack bottoms soon become infested with worms. Such pigs do not thrive, but develop into pot-bellied, profitless runts. Pens should be kept clean and dry and the manure frequently removed.

Mixtures containing charcoal, copperas, etc., are believed by some to be of value as preventives and destroyers of worms, but their usefulness probably depends upon their general effect on the condition of the pig and



Male Hog Louse.

not upon their action on the worms. Other things being equal, a pig in good condition is better able to resist the attacks of worms than one that is not in good condition. Mineral mixtures may, therefore, by helping to balance the ration, tend to increase the powers of resistance to the ill effects of worms and other parasites. They should, however, be classed as tonics or conditioners rather than as worm preventives or destroyers.

Santonin, which was formerly widely used as a remedy for worms in hogs, is practically unobtainable at the present time owing to foreign trade conditions.

Effective Treatment. The following treatment has been

## SUCCULENT FEED IN WINTER

Acres of Corn Can Be Placed in Silo at Cost Not Exceeding That of Shocking and Husking.

Silage is the best and cheapest form in which a succulent feed can be provided for winter use. An acre of corn can be placed in the silo at a cost not exceeding that of shocking, husking, grinding and shredding. Crops can be put into the silo during weather that could not be utilized in making hay or curing fodder. There is less waste in feeding silage than in feeding fodder. Silage is very palatable and like other succulent feeds silage has a beneficial effect on the digestive organs. More stock can be kept on a given area of land with silage.

## GUARD AGAINST HIGH PRICES

One of the Best Ways to Grow as Much Food on Farm as Facilities Will Permit.

One of the best ways to be insured against high prices for food is to raise as much of it on the farm as facilities will permit. Both meat and bread will be important next year. When we think of the importance of milk, pork, poultry, eggs, butter, beef, mutton and other foods derived from animals we are sure to be impressed with live-stock raising.

## MORE AND BETTER PASTURES

Good Results Obtained by Clipping at Okio Station—Ripening of Weed Seeds Prevented.

More and better pastures were noted to result from clipping pastures after harvest in a survey made by the Ohio agricultural experiment station. Eriogon and other weeds and the ripening of weed seeds is prevented, so that the grasses and clover have greater chances for growth. Where the mowing machine cannot go, a scythe may be used.

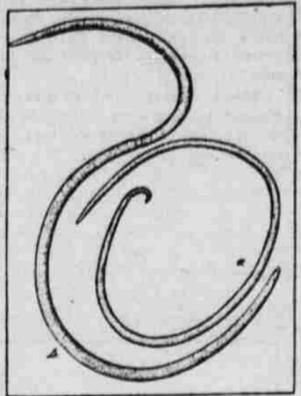
## IMMENSE LOSS BY INSECTS

Agricultural and Horticultural Interests Suffer Big Loss Annually by Pests.

One-tenth of the agricultural and horticultural interests of the United States are destroyed annually by insects, and our greatest safeguard is the destruction of these by the wild birds. The birds are our country's greatest aids to food conservation.

found to be very effective in expelling intestinal worms in experiments conducted by the zoological division of the bureau of animal industry:

Withhold all feed and water for 24 hours, then give each pig from 1 to 2 ounces of castor oil to which has been added oil of American wormseed



Common Roundworms of Hogs—(a, Male; b, Female).

as follows: Pigs weighing less than 50 pounds, one-half teaspoonful; pigs weighing 50 to 100 pounds, one teaspoonful; large hogs, two teaspoonfuls. Each pig should be dosed separately if the best results are to be obtained. Castor oil should always be given with oil of American wormseed. Other laxatives are not satisfactory.

### Dangerous to Drench Hogs.

Drenching hogs is dangerous, as they are liable to get the remedy into the lungs. With sufficient assistance pigs may be held, the mouth kept open by means of a couple of loops of wire or rope, or leather straps, and the medicine given in a tablespoon or a large kitchen spoon. By this method, though it is troublesome, one may be certain that each pig gets his proper dose. After dosing with the above mixture pigs may be fed and watered. Repeat the treatment in ten days.

### Change Pastures Frequently.

Healthy hogs become infested with intestinal worms from feed, water and soil which have been infested by the droppings from infected hogs. Frequent change of pasture is one of the best means of reducing worm infestation to a minimum. Hogs, however, should not be allowed to run at large on open range, as this favors the spread of hog cholera.

Swine can be raised when they are confined in limited quarters if the quarters are kept clean, but they will do much better and stay in better health if they have plenty of pasture. Divide the pasture into convenient areas, so that the hogs can be shifted from one pasture to another. This not only provides fresh pasture, but affords an opportunity to disinfect the pastures by plowing and reseeded or by exposure to the sun and weather.

## CURING AND STORING SEEDS

Soy Bean Spoils Rather Easily Unless Properly Handled—Avoid Heating and Molding.

Soy bean seed spoils rather easily if not properly handled, and care should be used in curing and storing. After threshing the beans should be watched carefully to avoid heating and molding. When good and dry there is no such danger. A good plan is to spread the beans out on the floor immediately after threshing and shovel them over from time to time until they are thoroughly dry, then they may be safely put into sacks or bins. The storeroom should be dry and have a free circulation of air. Soy bean seed loses vitality very rapidly and it is not safe to hold seed for planting purposes for more than two seasons.

## ADD TO OUR MEAT SUPPLIES

Quickest and Cheapest Way is to Increase Poultry and Egg Production—Eat Less Meat.

The quickest and cheapest way of adding to our meat supplies is to increase poultry and egg production. To double this production next year will give us 6,500,000,000 pounds of meat food in the form of poultry and eggs. By having this amount of poultry food for domestic consumption we will eat less pork and beef, and can send almost that many pounds of meat to Europe. We cannot increase any of the meat animals as rapidly or economically as poultry.

## PLENTY OF SHEEP ROUGHAGE

With Supply of Red Clover or Alfalfa Hay Animals Can Be Carried Until Nearly Spring.

With plenty of roughage, such as red clover or alfalfa hay, sheep can be carried until nearly spring with little grain. Corn silage can be used to furnish succulence, although some losses and a good deal of trouble have resulted from improper feeding of silage.

## RATS ARE QUITE EXPENSIVE

With Increased Price of Feed One Costs Eight Dollars Each Year—Better Keep Sow or Ewe.

Statistics used to tell us it cost \$5 to feed a rat for one year on the farm. With increased grain prices, it costs \$8. One can keep a profitable sow or ewe for the price of a few rats.

With the opening of the Sainte Eugenia hospital for tuberculosis repatriates at Lyons, another link is added to the chain of institutions the American Red Cross is forging to return to France her citizens well and free from infection. This hospital was opened in the presence of officials of the Red Cross and Rockefeller foundation and of the French Government. It is designed to care for patients reaching France via Evian.

Sainte Eugenia hospital has been loaned to the American Red Cross by the hospital board at Lyons, which supplies the building with heat, light, water and sanitation; and furnishes at cost food, linen and disinfection. The American Red Cross provides the nurses, doctors and medical supplies.

Often as many as sixty-five tuberculosis repatriates arrive at Evian in a single week, coming from occupied portions of France and Belgium, and returning to their homes have spread infection. The new hospital cares immediately for two hundred patients in five hospitals in five new hospital barracks, and in the main building—a chateau presented to the city of Lyons by the Empress Eugenie.

Government barges have been placed in service on the upper Mississippi and through Government assistance a new fleet is to be built for this service. Sugar is being moved by barge from Louisiana plantations to New Orleans.

Don't cuss the snow. The wheat needs it, and we need the wheat.

If Mary's little lamb continue to grow in favor and financial it is destined to seriously interfere with the activities of the country. The country is already in askance at the matter.

Col. House may not have much talking while in Europe from the results of his visit he have had a spokesman who talk some.

Chicago has been looted of \$1,000 during the past year by the reason the figures are so that the estimate doesn't include activities of the food profiteers.

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