

DAMAGE DONE TO GRAIN BY MOTHS

Insects Can Be Destroyed by Use of Heat or by Fumigation With Poisonous Gases.

CARBON DISULPHID IS BEST

By Exercising Proper Precautions Infestations in Field Can Be Reduced—Thoroughly Clean Old Bins and Granaries.

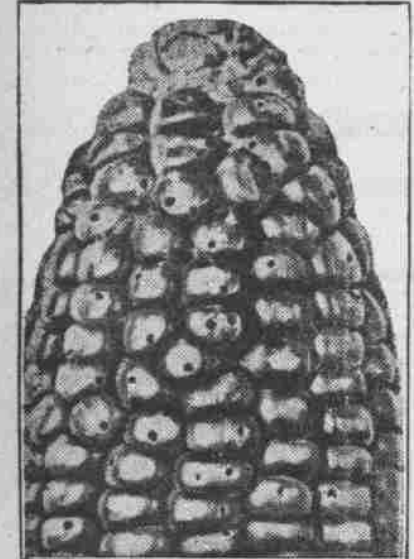
(Prepared by the United States Department of Agriculture.)

Most of the damage done by insects to grain in storage and shipment is due to four species, the granary weevil, the rice or black weevil, the lesser grain borer or Australian weevil, and the Angoumois grain moth, according to Farmers' Bulletin 1230, "Common Grain Pests," prepared by E. A. Back and R. T. Cotton and just published by the United States Department of Agriculture. Others of the 40 species or groups of species described in the bulletin can cause great damage if storage conditions are unusually favorable for their increase.

Remedial measures are mentioned only briefly in the bulletin. The insects, it is said, can be destroyed by the use of heat, or by fumigation with poisonous gases. A temperature of 120 degrees to 130 degrees, Fahrenheit, maintained for a short time, will kill all stages of grain-infesting insects, without injury to the germinating qualities of the grain. Carbon disulphid, carbon tetrachlorid and hydrocyanic acid gas are the fumigants in most common use today in treating infested grain. Of these, carbon disulphid is the best for treating grain in the bulk, it is said. Information on this subject is contained in other publications of the department.

Prevent Infestation. Infestation of grain in the field cannot be entirely prevented, but, by proper precautions, it can be reduced to a minimum, the bulletin points out. The first generation of insects in the maturing grain is usually small, and if the grain is cut as soon as ripe, threshed as soon as dry, and then placed in clean, deep bins, the damage from this source will be slight.

It is when the grain is left in the field long after it is ripe that serious infestation results, for the insects increase in one or two generations to enormous numbers. In the case of corn in the field, only ears damaged through carelessness in shucking, so



Tip End of Ear of Corn Showing Round Holes in Kernels Made by the Angoumois Grain Moth.

that the kernels are exposed, are subject to the attack of grain insects. Farmers should therefore, it is said, grow a variety of corn that develops a long, tight shuck.

Newly harvested small grain should not be stored unthreshed for any length of time, as in this condition it is very susceptible to infestation. If promptly threshed and stored in deep bins, only a thin layer on top of the bin is likely to become infested. Corn may be stored in the shuck if the husk is long and tight and fully covers the tip, but all ears with loose, broken, short or damaged husks should be shucked and stored separately.

Avoid Dirty Bins. Clean grain should never be stored in old bins, granaries or storehouses until they have been thoroughly cleaned and freed from the accumulations of waste grain and other materials harboring grain insects.

Bags of all kinds that have previously held grain should not be allowed in granaries or storehouses or be refilled until they have been sterilized or otherwise freed from insects. The use of tight cribs will keep the grain free from infestation by insects that might fly in from the outside.

Copies of the bulletin may be had free upon application to the department at Washington.

BEST DEPTH OF CULTIVATION

When Corn is Eighteen Inches High Roots Will Meet Across 3/4-Foot Row in Fertile Soil.

When the stalks of corn are 18 inches high, the roots have met across a 3/4-foot row in light, friable soils. Deep cultivation at this time will cut many of the roots and check the growth of the plants. A good rule to follow is to cultivate deep early in the season, and shallow later when the plants are larger.

Should Fit Neck and Shoulders of Horse to Prevent Sores—Bathe in Salt Water.

Since the power of a horse is applied through the collar, it is of utmost importance that the collar should fit the neck and shoulders. Carelessness in using badly fitting collars not only develops sores and ugly scars but many times causes horses to become balky. Horses' shoulders should be bathed in salt water every evening in order to harden them.

LEARN OF MARKET CONDITIONS BEFORE DISPOSING OF TIMBER



Logging One's Own Timber Gives Profitable Employment to Farmer and His Teams.

(Prepared by the United States Department of Agriculture.) Woodland owners many times are confronted with the problem of when to sell standing timber and when to cut it for use on the farm.

Experience has demonstrated that in some localities it unquestionably pays the farmer better at all times to sell, particularly the more valuable kinds of wood. For example, in the central hardwood region farmers sell their select yellow poplar trees profitably and with the money buy and haul back to the farm for distances of from four to eight miles southern pine siding for their houses and barns. On the other hand, there are too often instances where one finds choice white oak of the best quality, suitable for veneer or furniture stock saved up into posts for the farm.

Keep in Touch With Market. It would be well for the owner to keep in touch with market conditions, so he may market his product to the best advantage. With rarely an exception the timber is not dying, decaying or "going back" by fungus or insect attack at the rapid rate alleged by buyers, who, obviously, desire to buy as cheaply as possible. Unless it is overmature it is increasing yearly in volume and value.

Cutting during the early period of growth, says the United States Department of Agriculture, often represents a real sacrifice in financial returns. The approximate age at which trees should be cut in order to obtain the highest returns a year is very different for different species. Thus cottonwood, ash, hickory and yellow poplar become commercially valuable at much earlier ages than white oak and black walnut.

When other farm work is least pressing many farmers find it profitable to turn their attention to estimating, measuring, cutting, marketing and selling their timber. Spare help and time to supervise the work make winter a favorable season for this. It is easier to haul logs on the snow than over ordinary roads, and the logs are less liable than at any other time of the year to deteriorate quickly through attacks of insects or fungi.

Best Method of Selling. The choice of methods of selling depends largely upon the kind of timber and the owner's knowledge of its value, his past experience and the condition of the market. Timber products are sold either in the standing tree or in a more or less roughly manufactured condition. Except when sold by the lot or lump, sales are based upon a measure by log scale or lumber tally or upon individual count of units of designated size or character.

Timber sold by the lot, boundary, or tract is either "lumped off" to include a designated tract or sold on an acreage basis. This method has prevailed over all others, particularly in the rougher and less-settled districts. As a rule it is strongly favored by the purchaser because in such a transaction his better knowledge of both timber yields and values gives him an advantage over the average owner. Many examples of the sacrifice by the owner of a large share of the value of the timber can be found in nearly any wooded region. On account of greater competition among purchasers and a better understanding on the part of the owners of timber values, sales of standing timber by the lot or lump are now being made with better profit than formerly.

In using this method it is very important, in advance of the sale, first to secure a good estimate of the quantity, quality and unit value of each kind of product in the stand; then to get bids from as many buyers as possible; and, finally, to have an agreement clearly specifying the restrictions in regard to the manner and amount of cutting so as not to impair the producing power of the forest. The sale may include only trees above a specified minimum diameter, or such trees as have been previously marked by the owner for cutting. When properly safeguarded, this becomes one of the safest and most satisfactory of all methods of selling and should receive full consideration when sales are contemplated.

Place Restrictions.

Selling by lump eliminates the anxiety and misunderstandings attending sales by log-scale measurement. If competition is keen, it is likely that nearly, or quite the full value of the timber will be received in the bids. By this method, however, the owner foregoes the opportunity of profitable employment for himself and his teams which he would have if he logged the material and sold it after hauling it to the mill or shipping point.

Unless restricted by the terms of the agreement, the buyer usually cuts very closely. Selling by the lot is therefore a good method to use where the owner intends to clear the land for other uses. But if the land is to be kept in timber, the owner should include provisions in the contract of sale to retain the young, vigorous growing timber and provide for a future crop. The importance of care in cutting, on account of its effect upon succeeding growth and production of the stand, can hardly be overstated.

Banner-Courier classified ads bring home the bacon.

POCKET GOPHERS ARE MENACE TO FARMERS

Neighborhood Party Plan Successful in Nebraska.

Eradication of Pests Difficult Unless All Farms in the Community Are Cleaned Up in One Campaign—Plan Outlined.

(Prepared by the United States Department of Agriculture.)

The neighborhood party idea has been successfully applied to gopher elimination in Furnas county, Nebraska, under the direction of a specialist of the biological survey and the extension agent in co-operative work of the United States Department of Agriculture and the State College of Agriculture.

The eradication of pocket gophers is very difficult unless all the farms in a district are cleaned up in one campaign. A district two or three miles long is selected by the county agent, and farmers in this district are invited to a gopher poisoning party. A full attendance is usually secured.

The morning session is given to a demonstration in cutting the bait and applying the poison. Sufficient bait is



Gopher Exterminators and a Few Victims.

prepared to supply the party for the day. In the afternoon, the party is divided into pairs, one person carrying the bait and placing it in the runways, while the other person uses a prod to locate and open the runways. The county agent or specialist spends some time with each pair, giving instructions. All the infested area represented by the farmers attending the party is covered and poison bait applied. In many cases a second day is required to complete the work, but all members of the party invariably stay with the job until it is finished.

In Furnas county the work has been confined to the alfalfa fields in the valley lands along three important streams, the Republican river, and the Beaver and the Sappa creeks. All last summer the farmers were constantly reminded of the importance of the work, and excellent results were obtained in the fall. In the campaign 2,500 acres were covered. Figuring the advantage to the farmers in being rid of pocket gophers as half a ton of alfalfa per acre, this area would mean 1,250 tons, or \$10,000 saved.

GAS-TAR TREATMENT PROTECTS CONCRETE

Bureau of Public Roads Gives Results of Tests.

Fluid By-Product of Artificial Gas Plants Proven Satisfactory in Preserving Drain Tile Against Alkali.

(Prepared by the United States Department of Agriculture.)

In its search for a means of protecting Portland cement concrete against the action of alkaline waters, the bureau of public roads, United States Department of Agriculture, announces promising results from treatment with a very fluid crude water-gas tar, such as may be obtained as a by-product from many artificial gas plants. So successful have the tests been that further investigations of the alkali-resisting properties of tar-treated concrete and mortar are under way and the protective effect of water-gas tar on mass concrete structures is being studied.

The treatment consists of simply immersing the concrete in the liquid, which is soaked up, even by a dense concrete. Cement drain tile treated in this way and stored from six to eight months in a strong alkali solution have shown no indication of disintegration, and samples tested for tensile strength were as strong as those stored in pure water. On the other hand, untreated samples showed both disintegration and a loss of strength.

In certain parts of the country

where alkali salts exist concrete drain tile and concrete structures have been attacked. In many such places concrete is a very desirable material on account of the accessibility of the materials that go into it. The bureau's investigations aim to devise means of using concrete with assurance.

SLASH PINE YIELDS CASH WHILE GROWING

Profit of 6 to 12 Per Cent Interest Has Been Made.

Trees Grow Rapidly and Lumber Market Is Fast Taking Material of Smaller Size and Poorer Grades—Bulletin Free.

(Prepared by the United States Department of Agriculture.)

Slash pine grows rapidly and yields revenue in turpentine gum at an early age while it is growing into timber, says the United States Department of Agriculture in Farmers' Bulletin 1256, Slash Pine, prepared by Wilbur R. Mattoon, forest examiner, and now ready for distribution. Well-stocked stands of young growth, after making liberal deductions for the cost of taxes and fire-protection during the period of growth, show profits of 6 to 12 per cent compound interest on an investment of \$5 an acre.

A large number of owners in the South are deriving good profits from low-priced lands by using them for the production of timber and grazing



Turpentine Operations in a Thirteen-Year-Old Stand of Slash Pine.

of stock. If fire is excluded, the range yields more of the tender annual grasses and legumes which are more nutritious than the hardy perennials like wire and broom-sedge grasses, and the influence of the protective soil cover stimulates tree growth to a marked degree.

If the timber in the forest pasture becomes too dense, the owner has an easy remedy by first working the larger trees for turpentine and then cutting them for lumber, ties, posts, pulpwood, or firewood. Open stands of slash pine, with 75 to 150 trees an acre measuring up to ten inches on the stump, induce a rapid growth of the individual tree and admit a good growth of grass. In such stands more turpentine to the tree is secured than in overcrowded ones, and the grazing of live stock can be carried on successfully.

Second-growth slash pine stands, twenty to forty years old, frequently contain from 80 to 100 trees to the acre. At 20 cents a cup, less than the price received in 1919 for turpentine rights on the Florida national forest, such stands would be worth for turpentine \$20 to \$25, and with pine stumpage at \$5 a thousand the timber would be worth \$25 to \$30, or an average money return of from \$1.50 to \$2 an acre yearly. Observations and experience in such older sections of the country as New England indicate that good financial returns may be derived in relatively short periods from second-growth forests if handled under a proper system of protection, turpentering, and cutting, the bulletin points out.

SEVERAL DISEASES OF SOIL

Only Way to Overcome Fungous and Bacterial Afflictions Is to Let Land Remain Idle.

There are several diseases of vegetables which live over in the garden soil from one year to the next, and if the same crop is planted in the same soil year after year it will be but a short time until the crop will prove a loss. These are mostly fungous and bacterial diseases and the only practical way to overcome them is to allow the land to lie idle for two or three years or to plant a crop which is immune to the disease.

THE RECOUNT CASE HAS BEEN OPENED

Attorneys for candidates Olcott and Hall on Wednesday argued before Judges Kelly and Bingham of the Marion county circuit court legal points in the contest. It was claimed by Olcott's attorney that the point that the electors have a right to change their registration on election day at the polls.

TOO LATE TO CLASSIFY

FOUND—One stray Durham heifer, owner can have same by paying for feed and ad. W. H. Fisher, Oregon City, Oregon, Route 3.

Editorial Association Convenes

The Oregon State Editorial Association is in session at Corvallis today and will close tomorrow. A splendid program has been prepared including a free trip to the Coast for the visiting pencil pushers. The Banner-Courier will be represented by H. A. Kirk, of the advertising department.

Water Rules Enforced

Several policemen, including Fred

Price Bros.

DEPARTMENT STORE

The Quality Store of Clackamas County!

A TIMELY SALE

20% Reductions On

Sheets, sheeting, pillow cases, tubing, table cloths and linens, bedding, towels, bedspreads, toweling.

PEQUOT SHEETING	MESCO SHEETING
8-4 Bleached.....56c yd.	8-4 Bleached.....48c yd.
9-4 Bleached.....60c yd.	9-4 Bleached.....52c yd.
10-4 Bleached.....64c yd.	10-4 Bleached.....56c yd.
	Unbleached 5c less

PILLOW CASES REDUCED

42x36 in. Pequot.....40c	42x36 in. Belfast.....24c
45x36 in. Pequot.....44c	45x36 in. Belfast.....27c
42 inch and 45 inch Pequot Tubing, 37c and 40c yard.	

BEDSPREADS 20% LESS

Full size, crochet bedspreads, now.....\$1.80
80x90 inch, heavy crochet, now.....\$2.40
80x90 inches, extra weight, scalloped and cut corners, now.....\$3.40
86x94 inches, satin raised pattern spreads, now.....\$5.40

PURE LINEN TABLE DAMASK.....\$2.75 yd.
MERCERIZED TABLE DAMASK.....98c yd.

ALL TOWELS REDUCED 20%
 Two Exceptional Values

20x38 inch, Huck Towels, special.....15c each
Large size, Turkish Bath Towels, special.....45c each
HEAVY CRASH TOWELING, 17 inch, now.....10c yd.

DEEP REDUCTIONS INVOLVING SUMMER WASH FABRICS---ONE BIG LOT

July Clearance of Summer wash fabrics at an exceptionally low price for the character of the fabrics it embraces.

45c yard

Imported Scotch Gingham, Voiles, Silk Stripe Tissue Gingham, Novelty Wash Fabrics, Ratine Spun, 38 inch Organdies.

Values up to 85c yard

MEN!

Replenish your supply of furnishings and work clothes at

20% Reductions

From our regular LOW PRICES

Entire stock of Men's Shirts 20% Less

Such famous makes as Beau Brummel, Rainbow and Ideal. Materials of Percale, Madras, Repp, All Silk-Pongee, Tub Silks, Imported Broadcloth Silks, Jersey Silks, in fact, every known shirt material. Colors and patterns to suit every fancy—and they all will wash.

\$1.50 Shirts, now \$1.20
\$2.00 Shirts, now \$1.60
\$3.00 Shirts, now \$2.40
\$4.00 Shirts, now \$3.20
\$5.00 Shirts, now \$4.00
\$6.00 Shirts, now \$4.80
\$7.50 Shirts, now \$6.00

Men's Work Shirts 69c

Men's Mercerized Lisle Sox, 25c pair

Fine quality mercerized lisle in all colors, also black and white. Regularly priced at 35c pair. Special now 25c pair.

Men's Night Shirts \$1.19

Good quality, soft finish Cambric Muslin. The regular \$1.50 values.

E. & W. Collars 2 for 25c

All the new styles of linen collars, complete stock and all sizes in every style.

Interwoven, Holeproof and Themis Silk Sox 2 pairs \$1.25

Pure thread silk in all colors and black and white. 75c and 85c regular values of these.

Parasilk Sox, now 40c

Entire Stock of Men's Underwear 20% less

.65 garments .53
\$1.00 garments .80
\$1.25 garments \$1.00
\$1.50 garments \$1.20
\$2.00 garments \$1.60

Hay and Grain
Hay, clover \$16.00 per ton; oats, \$18.00 per ton; straw, \$9.00. Grain, wheat \$1.20 per bu.; oats \$1.80 per cwt.

Vegetables
New potatoes, \$2.50 to \$3.00 per cwt. Rhubarb 2 1/2c per lb. Green peas, 5c. Green beans, 4 to 6c per lb. Beets 40c per dozen bunches. Cherries 6 1/2c per pound.

Price Bros. Department Store is offering 20 per cent Reductions on the replacement of clothing and household articles lost in the Laundry fire.

Business as Usual

Until permanent quarters can be secured, our headquarters will be at the Pantorium Cleaners and Dyers, 519 Main St. Phone 185 for information or driver.

Oregon City Laundry

Langley Electric Company

House Wiring Electrical Contracting
All Work Guaranteed
Let us quote our prices and show you where money can be saved.
New Location—Former office of Hood Lumber Co.
Phone 142 201-12th St.

McCausland, water superintendent, Roy Baker and James Lowry, have been appointed special policemen to enforce the regulations concerning the use of city water. Hours for sprinkling are from 6 to 8 morning and evening.

JERSEY CATTLE MEN HOLD BIG MEETING IN CITY

Eleventh Commandment Given Jersey Breeders—Fine Banquet Was Served

One of the most valuable and enthusiastic meetings of Jersey cattle breeders ever held in the state was held on Wednesday this week, at the Oregon City Commercial Club room. The meeting was called at the instance of the field representative of the American Jersey Cattle Club F. B. Ashthro who is making a tour of the country.

In the forenoon, a series of slides showing record Jerseys were shown as were also motion pictures showing control of tuberculosis in cattle.

"The place of the hog on the dairy farm" was discussed by C. M. McAllister, field man for the Union Stock Yards of Portland. Harry West, a prominent Jersey breeder, also spoke urging the improvement of the herds. D. Brooks Hogan formerly manager of the Dadd farm at Oswego, declared that Oregon Jerseys compare favorably with the best he had seen on an extensive trip among the cattle raisers of the East.

A fine banquet was served at noon, presided over by Judge G. B. Dimick. Among the speakers on this part of the program were Judge Thomas F. Ryan, T. B. Ashthro who propounded the "Eleventh commandment for Jersey breeders as, 'Feed, Weed, Breed and Advertise'" and Mrs. Malar former secretary of the Clackamas County Jersey Club, who spoke on "Woman's Part in the Farm Program".

The club authorized the use of signs posted on their ranches, bearing the inscription, "Feed, weed, breed and advertise."

MULINO NEWS

An aeroplane passed over Mulino Friday. Mr. Frank Manning has bought a new Chevrolet 490, automobile. John Bounds and family went to the New Era camp meeting Sunday.