



The DAIRY

INCREASE IN DAIRY PROFITS

Breeders Find It More Profitable to Have Cows Freshen in Fall—More Milk Produced.

Because more milk would be produced in the year and calves would be raised cheaper, farmers find it most profitable to have their cows freshen in the fall months. Cows bred now will drop calves by early fall.

The cow gives a large flow of milk at the beginning of the period of lactation. In the spring the milk yield, which gradually falls off, is suddenly increased when the cow is turned on fresh pasture.

Calves born in the fall need mainly milk and eat little grain during the period of winter feeding. When spring comes they are ready to be turned on pasture. Spring calves consume milk and grain during the cheap pasture season and require the same high-priced feeds during the following winter, when they are older and thus eat more. The fall-born calf at the same age needs only pasture.

At the Ohio experiment station some calves born in the fall were raised for about \$5 less than others born in the spring. Under average farm conditions this difference would be fed to fall-born calves on pasture, while those at the station were given grain because of a shortage of pasture.

SKIM MILK FOR DAIRY CALVES

Found to Be Nearly Equal in Value to Whole Milk in Experiment at North Dakota Station.

In feeding the dairy calf, the aim is to cut down the period of whole milk feeding. At the North Dakota experiment station, two lots of four calves each were fed as follows: Whole milk first three weeks both lots. From then on lot A was fed one-half whole milk and one-half skim milk till six months old. Lot B, after three weeks old, was fed skim milk with flaxseed. Just enough flax was added to supply as much fat as was given the calves in lot A in their whole milk. Each calf



Promising Young Holstein.

was given two gallons of milk a day. The whole milk calves made the best gains the first three months but during the next three months the skim milk calves nearly caught up, the four lacking but 15 pounds of weighing as much as the whole milk calves, and several expert cattlemen who examined the two lots pronounced the calves in lot B in as thrifty a condition as those in lot A. The saving in using skim milk and flax in place of the whole milk amounted to \$19 per calf for the six month period. The grain and hay cost the same for both lots.

NO CURE YET FOR ABORTION

Rare Opportunity Offered Proprietary Remedy Shows—Handles the Herd Properly.

(By GEORGE H. GLOVER, Colorado Agricultural College, Fort Collins, Colo.)
The proprietary remedy sharks have found in contagious abortion a rare opportunity. Beyond the appropriate handling of the herd and disinfection there is nothing to offer at this time. The following brief statement is found in a recent United States department of agriculture folder: "It should be understood that no effective cure for contagious abortion has yet been found. Do not depend on drugs and proprietary remedies."

CLEAN MILK WINNING FIGHT

Making Gains Because of Demands of People—Takes Good Dairy to Score 75 Per Cent.

Clean milk is winning its fight slowly, and dirty milk is losing out—because—clean people buy clean milk. It is a good dairy that will score 75 per cent on the government score card. The only milk that is better than certified milk is the milk the suckling calf gets from its mother. In scoring this milk we are obliged to give 100 per cent on method and equipment.

CONTROL CORN ENEMY

Extremely Difficult to Eradicate Injurious Wireworms.

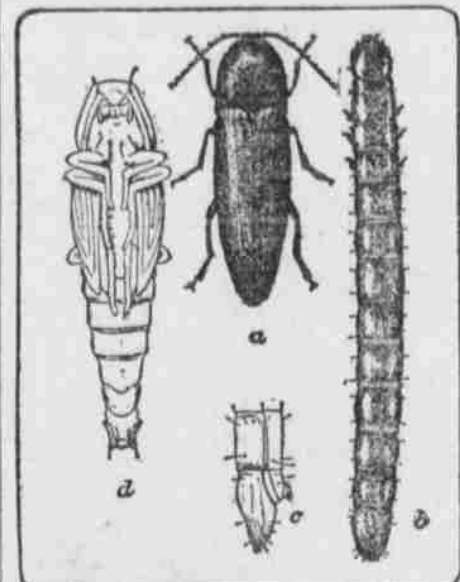
Insect Begins Operations Early in Spring, Soon After Planting—Infested Soil Should Be Deeply Cultivated.

Injury to corn by wireworms occurs in early spring, soon after planting. If the seed does not sprout, or the young corn plants wither and die down, the cause is generally wireworms. Land that has been in grass often is crowded with these larvae, which collect on corn hills, eating first part of the seeds and later the roots of the plants.

Wireworms are extremely hard to control, because they remain in the ground and are inaccessible practically all their lives.

J. A. Hyslop, in a recent bulletin of the U. S. department of agriculture makes the following recommendations for wireworms infesting corn:

Thorough preparation of the corn seedbed, and a liberal use of barnyard manure or other fertilizer will often give a fair stand to corn in spite of wireworms. A vigorous plant may



One of the Corn Wireworms (Melanotus Communis); a, Adult Beetle; b, Larva; c, the last Segments of Same; d, Pupa. All Enlarged. From Chittenden, U. S. Department of Agriculture.

be able to produce roots enough to withstand the depredations of several wireworms.

Land that is in corn, and badly infested should be deeply cultivated, even at the risk of "root pruning" the soil. Land should be cultivated as long as possible, and as soon as the crop is removed, it should be deeply plowed and thoroughly cultivated before sowing new crop.

The interposing of a crop not severely attacked by wireworms, such as field peas and buckwheat, between sod and corn would materially reduce the number of wireworms in the soil when corn is planted.

Corn wireworms generally are confined to poorly drained, or heavy and sour soil. In many cases of this kind, after the land was tile drained the injury ceased. No direct relationship between draining and disappearance of wireworms can be ascertained, but they usually go together.

BALANCED RATION IS NEEDED

Carefully Select All Fertilizers for Garden—Sheep Manure Will Help Plants Along.

Fertilizers, the plantfood for the garden, should be carefully selected. Nitrogen, which stimulates leaf growth, is best supplied by turning under rich, well-rotted or composted manure, or rotting vegetable matter. Nitrogen also is supplied in such fertilizers as nitrate of soda and sulphate of ammonia.

Potash tends to hasten the maturity of the plant, but also has a tendency to counteract the work of nitrogen. On this account those not experienced in using potash will find sulphate of potash better, or at least safer in most cases, than the muriate. On account of the disturbed commercial conditions potash is hardwood ashes.

Plants need a balanced ration. If they are lacking in nitrogen, they show pale leaf and stunted plant form. Excess of nitrogen is shown by large leaf and plant growth with imperfect fruitage. If the plants lack potash, they will not be fruitful.

PREVENT EROSION OF SOILS

Terracing and Contour Farming Are Coming Into Favor as Good Preventive Practices.

The farm practices that cause excessive erosion are continuous cultivation, shallow plowing, furrowing with the slopes, leaving the land bare in winter, neglect of gullies and the exhaustion of organic matter.

Practices tending to control erosion are systematic rotations containing fewer cultivated crops and more hay and pasture crops, the gradual deepening of soil by occasional deep plowing, the use of barnyard and green manures, winter cover crops such as rye and wheat, and prompt attention to gullies and ditches.

Terracing and contour farming are coming into favor as preventive practices as lands increase in value. Tilting poorly drained sloping lands such as spouty hillsides, helps by opening up the subsoil and carrying part of the water off through the tiles.

HORSES' SHOULDERS

Do not use sweat pads. Keep collars clean of dandruff and dirt, especially if soreness develops.

Sponge the shoulders of work horses with cold water at night after work. If they are sweaty at noon, sponge at noon also.

Care should be taken in fitting collars on work horses. Many collars are too big or too loose. If the withers are fat or especially full, the fitting of collars will need extra care.

GROW SORGHUMS FOR FORAGE

More General Use of Crop Hindered by Lack of Knowledge—Nearly as Valuable as Corn.

Sorghum as a farm crop has been generally underestimated. Corn is frequently grown and used under conditions wherein sorghum would be a much more valuable crop. The department of farm crops of the Missouri College of Agriculture is of the opinion that a more general use of sorghum is hindered by a lack of information concerning the crop, by the fact that under certain very exceptional conditions sorghum becomes poisonous to stock, and by the opinion that the crop is hard on land. The last two hindrances are by no means serious.

Aside from its special use for sirup, sorghum owes its value as a general farm crop to three outstanding characteristics of the plant. In the first place, the sorghum plant, pound for pound, is nearly as valuable for feeding as corn. Again, under conditions favorable for the growth of corn, sorghum will outyield corn as forage (including ensilage) and will compare favorably with corn in yield of grain. Finally the ability of sorghum to withstand adverse conditions, especially drought, makes the crop an extremely reliable one for the production of feed.

Since the greatest use of sorghum is for feed, its value must be reckoned in its ability to produce feed. The varieties of sorghum are divided into two groups, sweet or saccharine and grain or nonsaccharine. The sweet sorghums are grown for forage, pasturage, silage, and as soiling crops while the grain sorghums are grown chiefly for grain.

PLAN TO ERADICATE SORREL

Weed Can Be Destroyed by Rotation of Crops—Corn or Other Intertilled Crops Useful.

(From the United States Department of Agriculture.)

Sorrel can easily be destroyed by a short rotation of crops. If possible, the rotation should be arranged so that the soil will be cultivated at a different season each year. Corn or other intertilled crops are especially



Sorrel.

useful for killing sorrel if planted in checkrows and cultivated with a spike-tooth cultivator.

Either buckwheat or common millet, sown in June, allows spring and early summer cultivation and produces a dense shade during the later months of the year. Grain fields should be harrowed immediately after harvest and again at intervals during the rest of the season so that sorrel will not go to seed in the stubble.

TREATMENT OF GARDEN SEED

Disinfection by Use of Solution of Corrosive Sublimate and Water is Recommended.

Celery seed may be disinfected by the use of a solution of one part corrosive sublimate in 1,000 parts of water. The seed should be soaked one-half hour and otherwise treated the same as the cabbage.

One point to be remembered is that the treatment of seed does not eliminate the disease from infected soil, manure or from machinery which has been used in tillage.

TO STORE PERISHABLE FOODS

Every Farmer Should Have Cellar, Storehouse or Refrigerator to Save Surplus Crops.

Farmers lose much every year because their facilities for storing perishable foods are poor.

Every farm home should have a cellar, storehouse and refrigerator so the surplus foods may be saved till such a time as they may be consumed.

The fact that producers have inadequate facilities for saving perishable products gives speculators advantages

GOOD ROADS

SURFACE OF IMPROVED ROAD

Oval Should Be as Flat as Character of Material Employed and Lay of Land Will Permit.

"Everybody agrees that the surface of a road must be oval in its contour," says Farm and Fireside, "but not all understand that this oval ought to be as flat as the character of the road material and the lay of the land will permit. With brick or concrete construction the oval may be very flat, because the traffic makes no ruts to carry the water lengthwise of the road, nor does the pavement soften and develop depressions when kept in contact with water. But broken stone (water-bound macadam), being susceptible to penetration by water, and subject to great damage if frozen while soaked, must be given a higher oval; and for gravel roads a still steeper pitch is demanded.

"As for earth roads, the steepness must be governed by the combined influence of a number of factors. Perhaps the leading factor is the quality of the earth in each particular case. And next might be placed the presence or absence of 'seeps' or 'spouts'; while another of these vital factors would be the longitudinal pitch of the highway."

OIL FOR ROAD IMPROVEMENT

When Properly Applied Good Surface Is Obtained—Experiments Being Made in Missouri.

(By E. T. M'CAUSTLAND, Missouri Agricultural College.)

Attempts are now being made in several parts of the state to keep dust down by the use of road oils. Supervisors should be careful to investigate the quality of oil they use before putting it on the highways. It is not generally understood that there are two distinct types of oil on the market. One of these oils has an asphalt base which serves as a binder on the road as soon as the lighter oil evaporates. The other has a paraffin base and is to all intents and purposes a lubricating oil. This kind of oil, however, does not hold the road hard, or is not binding. It leaves the roads dusty and sticky.

Road oiling, properly done, gives a good surface. The City of Joplin has done some of this work on its roads that have already carried heavy traffic more than a year and now look as good as asphalt pavement.

Any Missourian may send samples of road oils to the Engineering Experiment Station University of Missouri, Columbia, and have them examined at



Oiled Highway in Missouri.

a moderate cost—merely enough to pay for the use of materials in the laboratory. Some time ago the experiment station issued a bulletin giving complete information on the quality of various materials throughout the state for road-making purposes. This bulletin is still in print and will be sent free. Its title is "Investigator of Road-Making Properties of Missouri Stone and Gravel."

\$1,500,000,000 FOR ROADS

Predicted This Amount Will Be Spent in Next Five Years on Highways of United States.

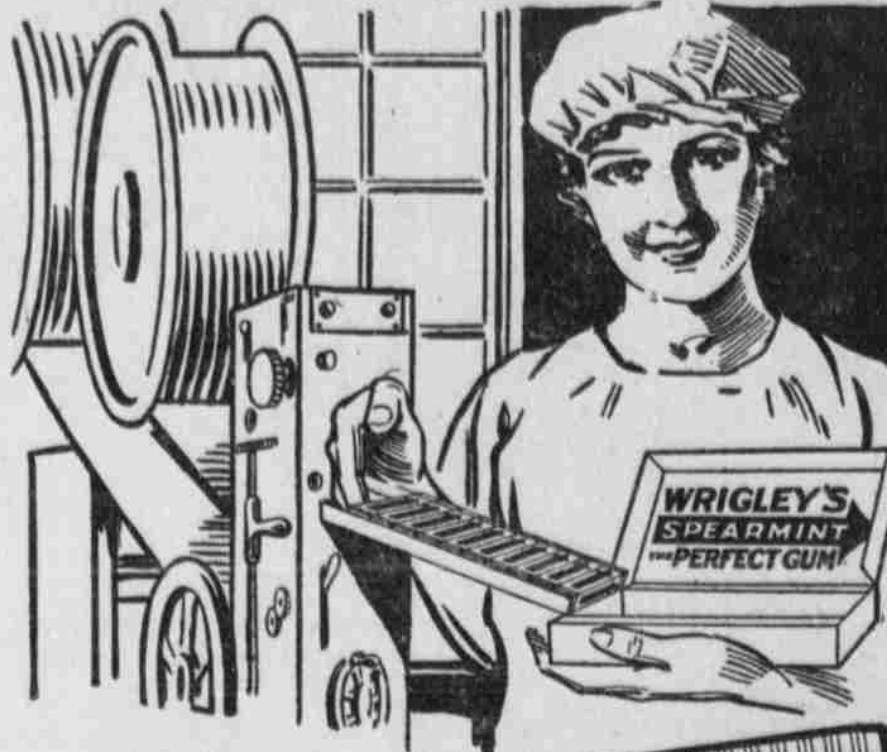
"It is predicted on good authority that from \$1,000,000,000 to \$1,500,000,000 will be spent on the highways of the United States in the next five years," says Lincoln Highway, the organ of the transcontinental highway association of that name. "Herein lies the proof of the general interest on the part of all of the people in road improvement, an interest which went soaring with the passage of the Bankhead-Shackleford act allowing \$75,000,000 of federal funds to the various states for this purpose."

Money for Rural Roads.
Under the federal-air road act, within the next five years \$160,000,000 will be spent by federal and state governments in improving rural roads.

Reduce Cost of Hauling.
Good roads reduce the cost of hauling produce to and from the farm as much as 25 cents per ton-mile.

Beautiful Roadside.
Why not plant parts of our roadsides with suitable native shrubs or perennials?

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