

PLAN TO PREVENT LOSS OF RANGE CATTLE



IMPROVED CATTLE ON SOUTHWEST RANCH.

(Prepared by the United States Department of Agriculture.)

A matter of pressing importance in view of the present need for increasing the nation's food supply is the solution of the problem of how to produce more and better cattle on Western range lands. It is generally conceded that the carrying capacity of the remaining areas of public land is at least 25 per cent less than it was originally, the result of grazing stock at improper seasons and overstocking. It is also a fact that the productiveness of many privately owned ranges, both fenced and unfenced, has been reduced through faulty management. To work out a system of range management and improvement practicable for large grazing units, which will build up the depleted areas and insure the maintenance of the whole range in good condition, the United States forest service made a study of the Jornada Range Reserve, a unit comprising some 200,000 acres in southern New Mexico.

Average Loss of Stock.

The average loss of stock on the Jornada Range Reserve, June 1 to December 31, 1915, was at the rate of 1.9 per cent for a year; the average loss in 1916 was 1.5 per cent. The average losses for New Mexico are approximately 10.6 per cent for calves to twelve months of age, 5.6 per cent for yearlings, and 5.8 per cent for other stock.

The small loss at the Jornada reserve is attributed to careful, systematic vaccination against blackleg, to the reservation of grama-grass range for poor stock during the critical spring months, to feeding the animals a small quantity of cottonseed cake, and to prevention of straying.

In order to provide for extra range

for the breeding stock in poor years one-third of the stock on a range unit should be steers. It is then possible to reduce the number of stock, when necessary, by selling steers without great sacrifice and without interfering with the breeding stock. In good years the number of steers can be increased and in bad years decreased.

Provide Against Loss.

To provide against loss in extremely bad years, some kind of roughage to supplement the range forage, for feeding with cottonseed cake or other concentrated feed, would be a decided advantage on southwestern ranges. Ensilage made from soap weed (*Yucca elata*) has been tried, and the results are promising, but not extensive enough to warrant definite conclusions.

Feeding cottonseed cake to calves weaned during the late fall, winter, and early spring is an important factor in cutting down loss and increasing the size of the stock, as well as in increasing the calf crop. Where this is done, young calves can be taken from poor cows, thus reducing loss from starvation among both cows and calves and stimulating earlier breeding. Indications are that such feeding is a good business venture from the standpoint of increased value of the calves, aside from decreasing the loss from starvation.

Range feed not more than two and one-half miles from water is a big factor in cutting down loss from starvation, especially where little or no supplemental feeding is done.

The possibilities of decreasing loss justify more attention on the part of stockmen to careful, systematic vaccination as a preventive of blackleg and to picking out and feeding stock in need of special care.

The DAIRY

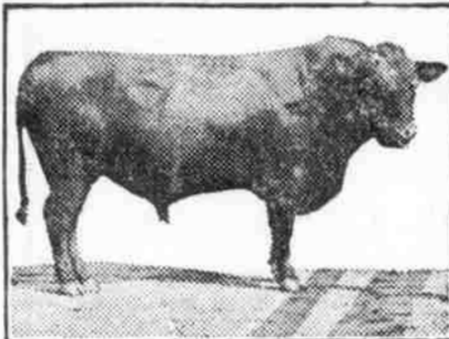


FIRST-CLASS BULL FAVORED

Associations Are Now Making It Possible for Farmer to Secure Service of Purebred Sire.

The owner of a large herd of grade cows can well afford to own a first-class bull, and bull associations are now making it possible for the owner of a small herd to own a share in a good, well-bred bull. A co-operative bull association is a farmer's organization the chief purpose of which is the joint ownership, use, and exchange of high-class, purebred bulls. If skillfully managed, these associations should be eventually the greatest single factor in the rebuilding of our dairy herds.

To build up a valuable and profitable dairy herd, careful and intelligent management must be combined with selection and breeding. Ill treatment



Animal of High Class.

and insufficient or unsuitable feed have made many a well-bred and carefully selected herd unprofitable. All cows should be well bred and well fed. It never pays to keep a cow that does not pay a fair return for first-class feed and care.

URGE CLEAN DAIRY UTENSILS

Dirt Is Cause of Production of Much Poor Milk, Cream and Butter—Wash Separator.

Much poor milk, cream and butter are produced because of dirty utensils. It is not necessary that the dirt be present in sufficient quantities to be seen by the naked eye in order to render the can unfit for use.

The unclean separator is another common source of contamination. The separator should be taken apart and carefully washed and scalded after each separation. After the separator parts and utensils have been cleaned and dried, they should have a clean, dry appearance and should not be greasy to the touch.

A greasy coating on the interior of a milk can will spoil milk or cream in a very few hours. It doesn't cost any more to keep the utensils clean and the results obtained are more satisfactory in every way.

WATER GIVEN MILKING COWS

Test Proves That Animals Drink at Pond or Creek Only Enough to Satisfy Cravings.

It stands to reason that in winter the water given milking cows should not be icy. Many farmers boast of the fact that their own creeks or ponds to which their cows have access in cold weather. And while this saves work and expense, it is hard on the cows, though the farmers claim it is not. If you want to test the matter, let your cows go to the pond or creek and drink through the ice. Then, when you have returned to the stable, carry in water that is not lower than about 60 degrees Fahrenheit, and see how your cows will go after it. This proves that they drink at the pond or creek only enough to satisfy their immediate cravings and not enough to fill their bags with milk.

MAKE DAIRY BUSINESS PAY

Raise All Heifer Calves From Good Cows and Keep Purebred Sires—Have Good Silos.

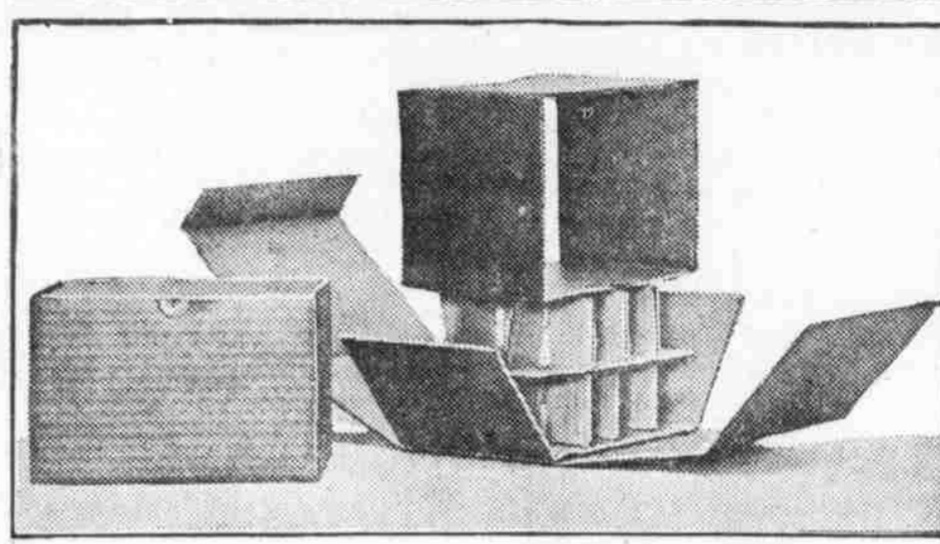
To make the dairy business pay the best, raise all the heifer calves from good cows and keep purebred sires, is the advice of Wear Brothers of Illinois who speak from experience. Have good silos and put all corn raised in the silo. Have plenty of alfalfa and clover hay. Cows must be well housed and given plenty of water to get best results.

LIGHT FOR WINTER MONTHS

Darkness Has Deteriorating Effect on General Health of Herd and Affects Eyesight.

The dark dairy stall is more likely to be in evidence during the winter months than in the summer, as some farmers seem to think the barn must be closed as tightly as possible. Still, light is not only an essential to comfort but darkness has a

CONTAINERS MEET REQUIREMENTS OF LAW



CORRUGATED BOXES FOR SHIPPING EGGS.

(Prepared by the United States Department of Agriculture.)

Experience has shown that frequently parcels are mailed in containers not sufficiently strong and inadequately prepared and protected. These are a cause of complaint. While the containers often can be secured more easily by the consumer, the producer should make it a point to secure

Eggs in parcels weighing more than 20 pounds shall be accepted for mailing to offices in the first and second zones when packed in crates, boxes, buckets, or other containers having tight bottoms to prevent the escape of anything from the packages and so constructed as properly to protect the contents. Such packages to be marked "Eggs—This side up," and to be transported outside of mail bags.

Ideal Container Is Simple.

The ideal container must be simple in construction, efficient in service, and simple in use. Simplicity of construction is essential, so that it may be assembled, packed or filled readily and rapidly. Any part which is to be opened should be so marked or notched as to indicate the part to pull up or out. It must be efficient in service to insure satisfaction to the shipper and to the receiver, and also to prevent damage to other mail matter by possible breakage and leakage. It must be inexpensive or it will defeat the object to be attained, which is a reduction of the cost of handling between producer and consumer.

Trials of many different styles and makes of containers or cartons for shipping eggs by parcel post were made. Quite a number proved satisfactory in extended trials. A few of them are illustrated in these pages for the purpose of showing in a general way their appearance and construction. Any container which meets the postal requirements and which serves the purpose properly can be used.

The experiment stations in the various states have information as to containers for parcel post shipments of eggs in consumer-size lots, and persons desiring information of this kind should not address the United States department of agriculture, but should address the director of the experiment station in their own states.

EGGS FOR HOME USE

Water-Glass Solution Is Recommended as Best Plan.

Standard Grade Can Be Obtained at Drug Stores for 75 Cents per Gallon—Dilute With Water Boiled and Cooled.

(Prepared Specially by the United States Department of Agriculture.)

In the spring, when they are plentiful, eggs may be preserved for home use in a solution of water glass, so that those laid during the fall and winter season may be available for marketing. A standard grade of water glass can be obtained at drug stores for 75 cents per gallon, if bought in moderately large quantities. Each quart of water glass should be diluted with ten quarts of water which has been boiled and cooled. Only strictly fresh, newly laid, clean eggs should be placed in the solution. The eggs may be packed in stone jars or crocks which have been washed thoroughly in scalding water and the water-glass solution poured over them, or the eggs may be placed daily in the solution by putting them down in it carefully by hand so as to avoid breaking or cracking them. The solution at all times should cover the eggs to a depth of at least two inches. The solution will not injure the hands. The jars should be put in a cool and preferably dark place before the eggs are deposited in them, and should not be moved, because breakage and loss may result. The water-glass solution may become cloudy, but this is a natural condition and should cause no alarm.

ABUNDANT SUPPLY OF LITTER

Clean Straw Should Be Provided for Winter Use—Renew at Least Twice Monthly.

An abundant supply of deep litter, preferably clean straw, should be provided for winter use, renewing the covering of all floors at least twice a month. This is the hen's punching bag or gymnastic equipment to insure winter health and vigor. Fortunately straw is cheap this year, and it should be used freely, as it is a great comfort to the hens in more ways than one. Be sure there is something in it worth digging for at least half or two-thirds of each day. The active hen easily turns her feed into eggs, while the overfed, inactive hen is unprofitable as well as her scantily fed sister.

FOWLS FOR BREEDING FLOCK

Hen That Molts Late Is the One That Has Been Busy in Filling Egg Basket—Keep Her.

The hen that molts late in the season is the one that has been busy filling the egg basket. She is the one that ought to be kept in the breeding flock and from which eggs for hatching should be selected next spring. The hen that molts early in the fall or the late summer is the slacker and the one that should go to market. This reverses the policy that many have been

FEED MASH TO LAYING HENS

Maine Station Recommends Mixture of Cornmeal, Middlings, Gluten Meal and Beef Scrap.

The Maine station fed the following mash to laying hens with good results: Wheat bran two parts by weight, cornmeal one, middlings one, gluten meal or dried brewers' grain one, linseed meal one, beef scrap one. The ration might be reduced to wheat bran, shorts, cottonseed meal and beef scrap.

For Coughs and Colds PERUNA An Efficient Remedy

Compounded of vegetable drugs in a perfectly appointed laboratory by skilled chemists, after the prescription of a successful physician of wide experience, and approved by the experience of tens of thousands in the last forty-five years.

Peruna's Success

rests strictly on its merit as a truly scientific treatment for all diseases of catarrhal symptoms. It has come to be the recognized standby of the American home because it has deserved to be, and it stands today as firm as the eternal hills in the confidence of an enormous number.

What Helped Them May Help You Get our free booklet, "Health and How to Have It," of your druggist, or write direct to us.

The Peruna Company Columbus, Ohio



Distemper Can Be Controlled by using Dr. David Roberts' FEVER PASTE Price \$1.00 and WHITE LINIMENT Price 50c

DRAIN TILE

IF YOU OWN A LITTLE FIELD FOR THE LAND'S SAKE DRAIN IT WELL TO MAKE IT YIELD

LET US SUBMIT PRICES COLUMBIA CLAY CO. COLUMBIA, SOUTH CAROLINA

DROPSY TREATMENT. Give quick relief. Soon removes swelling and shortness of breath. Never heard of the equal for dropsy. Try it. Trial treatment sent FREE by mail. Write to DR. THOMAS E. GREEN, Box 2142, CHATSWORTH, GA.

200,000 War Marriages. Sir Bernard Mallet, registrar general, addressing the Royal Statistical society recently, said that in England and Wales 200,000 people had married between August, 1914, and June, 1917, while in Hungary, the only other belligerent country for which complete figures were available, the figure was 600,000. By the end of June, 1918, the United Kingdom would have lost by the fall in births over 500,000 potential lives, 10,000 per million of the population. For some unexplained reason England was remarkable for the low excess of male over female births, not only as compared with continental countries but also with the other parts of the United Kingdom. A decline in the number of suicides was an interesting minor feature of the war period.

PROVEN SWAMP-ROOT AIDS WEAK KIDNEYS

The symptoms of kidney and bladder troubles are often very distressing and leave the system in a run-down condition. The kidneys seem to suffer most, as almost every victim complains of lame back and urinary troubles which should not be neglected, as these danger signals often lead to more dangerous kidney troubles. Dr. Kilmer's Swamp-Root which, so many people say, soon heals and strengthens the kidneys, is a splendid kidney, liver and bladder medicine, and, being an herbal compound, has a gentle healing effect on the kidneys, which is almost immediately noticed in most cases by those who use it.

A trial will convince anyone who may be in need of it. Better get a bottle from your nearest drug store, and start treatment at once. However, if you wish first to test this great preparation send ten cents to Dr. Kilmer & Co., Binghamton, N. Y., for a sample bottle. When writing be sure and mention this paper.—Adv.

Easy Money. Secretary Lansing at a luncheon talked about the German corruption funds.

"Germany gave over 10,000,000 marks to Bolo," he said. "She gave over 5,000,000 to Lenoir. She handed to Count Bernstorff for his various propaganda at least 100,000,000."

"This proves to us that there are lots of easy marks in Germany."—Detroit Free Press.

Soothe Itching Scaps. On retiring gently rub spots of dandruff and itching with Cuticura Ointment. Next morning shampoo with Cuticura Soap and hot water. For free samples address, "Cuticura, Dept. X, Boston." At druggists and by mail, Soap 25, Ointment 25 and 50.—Adv.

Fools are not the only ones who get a quick divorce from their money during the holidays.

A torpid liver prevents proper food assimilation. Tone up your liver with Wright's Indian Vegetable Pills. They act gently. Adv.

Many a man's thirst has separated him from his last quarter.

When Your Eyes Need Care

FOOD SUPPLY SOURCES

Milk and Dairy Products of Importance During War.

Armies and Navies Will Draw Heavily on Stocks of Condensed Milk, Cheese and Butter—Take Care of Cattle.

(By A. C. BAER, Department of Dairying, Oklahoma A. and M. College, Stillwater.)

Milk and dairy products must continue to be one of the main sources of our food supply during the period of the war. Our armies and navies will draw heavily on our supply of dairy products, especially condensed milk, cheese and butter.

The dairy cow must also continue to furnish the people at home with milk, cream and butter, our cheapest and best foods.

Dairy cattle must be conserved, well cared for and economically fed and handled so that our dairy products will not become exorbitantly high in price.

Consumers are already in arms against the high price of butter, cheese and milk. Present prices of these products are high compared with what they were several years ago, but compared with the other food products, milk, cheese and butter are not yet so expensive as to be beyond the reach of the ordinary consumer.

Milk at 12 cents per quart is still as cheap food compared with meat, fruit and vegetables. Butter at 50 cents is still better and cheaper from the standpoint of food value than most substitutes for butter (other fats) at 35 cents or 40 cents.

The producers of milk must be able to conduct their business at a profit, and people should not be alarmed at a small increase in the price of milk when other food products are comparatively high in price.

ORCHARD FOR FRUIT SUPPLY

One Acre of Carefully Selected Varieties Will Be Found Sufficient—Plan in Winter.

(Clemson College Bulletin.)

A home orchard of one acre of carefully selected fruits and varieties is usually sufficient to furnish a generous supply of fruit throughout the season, and a canning surplus for winter.

By planting in fall and winter more time is had for the thorough preparation of the soil, time is saved, trees will become well established before the growing season and the conserved moisture lessens the percentage of dead trees.

FEEDING ANIMALS IN WINTER

During Cold Weather Heat-Producing Feed Is Required—Hay Silage and Fodder Are Good.

Feeders should not forget that animals during cold weather require considerable heat-producing feed, such as grain. Hay silage and fodder give bulk and are valuable in the ration. They cannot take the place of grain.

Corn is one of the best grains for heat and fat production. For horses, mules, hogs, cows and sheep corn is very important. However, cows giving milk should not be fed too much corn as they need feed high in protein for milk production. But corn is good for dairy cows when fed in sufficient amounts to balance the ration with feeds rich in protein and with hay and silage.

Hogs are especially fond of corn. Fattening hogs will consume an enormous amount and will make very rapid gains when also given other concentrates with more protein than corn has.

The grain sorghums are not quite as high in protein and fat as corn, but they are good feeds nevertheless. Animals soon learn to like these sorghum grains and will do as well on them as corn, provided the ration is balanced.

FEEDING ANIMALS IN WINTER

Kind of Work Being Performed Has Much to Do With Ration—Feeder Should Watch Closely.

Just as people may require more heat-producing foods such as meat in winter than in summer so may animals need more grain than in summer. But the kind of work the animal does, or whether it is on heavy work or no work, has much to do with the feed of work stock. Cows giving milk require more protein and carbohydrates than cows that are dry.

A good feeder should watch his animals very closely and feed what the animals will clean up and no more. He should know the relative values of feeds and then learn the requirements of his animals. He can soon learn to raise feeds economically.

MULES ALWAYS FIND DEMAND

Ready Sale for Animals in All Cotton-Growing States—No Improvement in Production.

You need not be afraid to raise mules of most any size. There is a demand for them. There will always be a demand for this kind of stock. Who can recollect the time when there was not a ready sale over the cotton-growing states for mules? There has not been much improve-