

DAIRY FACTS

COWS NOW HEAD PROCESSION

At Top of List of Farm Animals So Far as Value is Concerned—Quality is Improving.

The expansion which has been taking place steadily in the dairy industry of this country during the last seven years has at last put milk cows at the head of the list of farm animals so far as value is concerned. This is shown by a recent report by the bureau of crop estimates, United States department of agriculture. The value of these animals now exceeds that of horses and cattle other than milk cows, the two classes formerly standing higher on the list. On January 1 of this year there were approximately 23,747,000 milk cows in this country, an increase of 272,000 head, or 1.2 per cent, as compared with a year ago.



Head of Jersey—Milk Cows Now Lead All Other Farm Animals in Value.

Their aggregate value is placed at \$2,021,081,000.

Ten years ago the average milk cow was worth \$35.29, compared with \$78.20 a year ago and \$85.13 January 1, 1920. It is generally recognized that the quality of the milk cows of this country is improving at the same time that their number is increasing.

The class of cattle, consisting of calves, steers, bulls and cows, not kept for milk production and designated as "other cattle," shows a decrease of 700,000 head, or 1.6 per cent. Ten years ago the average value per head of animals in this class was \$19.07, a year ago it was \$44.22, and \$43.14 this year. The number of "other cattle" in the country at the present time is approximately 44,385,000, and their value \$1,914,575,000.

DRY CORN FODDER AS SILAGE

Cattle Like It and Do Well on It, but It is Not as Good as That From Green Corn.

In reply to numerous inquiries on the feeding value of dry corn fodder in comparison with the fodder used as silage, H. H. Kildee, head of the Animal Husbandry Department of Iowa State college, says that the fodder put into the silo makes better feed than the dry fodder.

Many of the farmers have followed the practice of filling their silos with dry fodder after the silo has been emptied or nearly so. In almost every case the fodder will need the addition of considerable water to make good silage. The water may be put in the fan-box of the ensilage cutter. Many farmers, however, pump the water directly into the silo.

Silage made in this manner is not so good as that made from green corn. Cattle like it and do well on it. It is reported that last year farmers filled their silos as many as three times with dry fodder. The fodder was cut at the same time as the corn for ordinary silage and was left standing in the field until needed.

AVOID DIRECT HEAT OF SUN

Proper Care of Cans Must Be Taken in Transferring Milk to Station for Shipment.

In taking the cans of milk to the station for shipment, care should be exercised to see that they are covered with blankets in order to keep off the direct heat of the sun. Dairy supply houses handle special blankets for covering cans which it is highly desirable to use where milk is shipped for any distance and refrigerator cars are not supplied.

DAIRY NOTES

Keep the cows in clean quarters.

The profitable marketing of dairy products is very important.

Grass by itself is not considered a balanced ration for the milk cow.

The smaller the opening into which the milk goes the less the danger of dirt.

The general farmer is finding that the dairy cow is a valuable asset in his farming operations.

SUDAN GRASS PROVES MOST VALUABLE CROP

Interesting Tests Made at Kansas State College.

Not Only Good as Other Pastures, But is Equal to a Silage, Grain and Alfalfa Hay Ration—Cows Held Up Milk Yield.

Sudan grass, when used for pasturing stock, is not only as good as other pastures, but is equal to a silage, grain and alfalfa hay ration, according to an experiment carried on by the Kansas State Agricultural college during the past summer.

Six grade Holstein cows were put on four acres of Sudan grass, July 1, and were not taken off until October 10. The cows used in this experiment were taken off of a ration of silage, grain and alfalfa hay, when they were placed on the Sudan grass. After they were on the pasture they were fed only a grain ration of corn, bran, and linseed meal in proportion to their milk production. These cows held up in their milk production throughout the summer.

The greatest significance of this experiment is that Sudan grass will supply pasture during the hot summer months when other pastures fail, and that cows on this pasture will yield as well as those being fed a regular ration of silage, grain, and alfalfa hay.

COMBINATION TOOL IS HANDY

Blades Made to Fit Handle of Hoe for Performing Various Tasks Around Any Garden.

When one gardener had the misfortune to break his hoe just back of the blade, the ingenious way in which he repaired it made it into a tool more



Useful Combination Tool.

useful than before. He bent a piece of pipe to the shape shown, fastened the handle firmly with a pin, drilled another hole, sawed a slot, and fastened the blade with a bolt and wing nut. Blades were then made in various shapes, any one of which could be fastened in the same slot in the piece of pipe. Thus one tool did the work of three or four.—Elmer O. Tetzlaff, Clecro, Ill., in Popular Mechanics Magazine.

SHELTER SWINE IN WINTER

It is Essential That Young Porks Be Provided With Well Ventilated, Dry Quarters.

Pregnant sows in summer can be turned on tender, succulent pasture without grain. About three weeks before farrowing they should receive a ration of rolled barley or wheat nine parts and tankage one part, or three pounds of skim milk to one pound of the above grains. This method of feeding will insure strong, lusty, active, new-born pigs. It is very essential that fall pigs be provided with dry and well protected shelter during the winter, and kept free of lice.

ATTEND TO NEEDED REPAIRS

Don't Wait Until Tractor Has Stopped Before Making Investigation of Engine.

Attend to needed repairs immediately. Don't wait till something goes to smash on your tractor before stopping. Such a course means money loss for additional repairs and for extra time lost. It is the novice that will run when he thinks his engine needs repairing. The good operator will stop as soon as he thinks all is not as it should be.

KEEP BUSY ON STORMY DAYS

Splendid Opportunity for Making Necessary Supply of Flats and Plant Boxes.

It is difficult to get too many flats or plant boxes on hand. Stormy days can be used to advantage in making a supply. Use sound lumber and make them uniform in size and shape, so there will be no loss of space in the frames and on the greenhouse bench.

MAKE PROFIT RAISING HOGS

Necessary That Pigs Be Given Best of Attention and Feed to Make Business Pay.

A pig is responsive to good care and feed. Under the present economic conditions it is necessary that the pig be given the best care and the right kind of feed in order to make hog raising a real paying proposition.

DAIRY COWS FED TOO MUCH GRAIN

Greatest Quantity at Lowest Cost for Production Makes Dairying Profitable.

HOLSTEIN COW MADE RECORD

Produced More Milk and Butterfat on Pasture, Silage and Roughage Than When Fed Grain—Feed Stuff Grown on Farm.

(Prepared by the United States Department of Agriculture.)

Profitable dairying does not consist in producing the greatest possible quantity of milk.

It does consist, however, in producing the greatest possible quantity of milk at the lowest possible cost.

To produce more milk, many dairymen feed too much grain, and pile up stupendous feed bills. But the grain does not always increase the flow of milk above what it would have been without grain, enough to pay the difference in the feed bill. Dairy specialists of the United States department of agriculture believe that in many cases more grain is fed to dairy cows than can be justified by the results in milk and butterfat.

If your neighbor told you that his cow, that had not eaten a pound of grain for a whole year, produced 3,000 pounds more milk and 90 pounds more butterfat than she ever did when fed the regular grain and roughage ration—well, what would you believe if your neighbor told you that? And yet, that has actually happened. At least, that is substantially the story that the United States department of agriculture tells about its Holstein cow, Helen Ulkje Calamity 145857.

Up to the time Helen was eight years old, she had always been fed a grain, silage, and roughage ration, and the best she had ever done was 11,778.2 pounds of milk and 368.39 pounds of butterfat. When she was eight years old, that being in the spring of 1918, it was decided to feed her no grain for a year. She lived for a full 12 months on pasture, silage, and roughage. And that year she produced 14,210.1 pounds of milk and 470.24 pounds of butterfat. The experiment was carried out at Huntley, Mont.

A Revolutionary Cow.

Helen may properly be referred to as a revolutionary cow. Some other cows, in cow-testing associations and elsewhere, have shown similar tendencies. And the result is that the dairy specialists are urging dairymen to see if it is not possible to produce milk and butter without feeding so much grain as is commonly fed.

The basis of successful dairy feeding is now said to be to feed the cows on the stuff that the farm produces instead of buying a great deal of grain and other concentrates. The dairyman should plan his feeding and crop growing to take care of the herd he has, instead of buying as the need arises for more feed. He should devote special attention to having the right kind of pasture and the right kind of roughage. If he cannot grow



She Produced More Milk Without Grain Than With It.

alfalfa, say, he should see what can be done toward growing soy beans or cowpeas or some other roughage crop that will supply the protein needed. Caring for Pasture Pays.

In the old days, when a cow could be fed on grain and roughage at \$5 or \$6 a month, there was no great inducement to take care of pastures. But today it costs from \$15 to \$30 a month to feed a cow on grain and roughage. Attention devoted to pasture, therefore, pays bigger dividends than formerly. Dairymen used to figure that they must get \$15 a year from every acre of land in pasture, and this meant that the acre had to pasture a cow for three months. Now, if the same acre pastures a cow only one month, it produces its \$15. If it pastures a cow for three months it is producing \$45 a year. And the price of pasture land has not increased in that proportion. Therefore, every day that the cow is kept on pasture means a saving of money to the dairyman. It pays, nowadays, to take care of the pastures. And it pays equally well to take care of the roughage. Pasture, forage, silage—these things are the essentials in dairy production.

SOLVE WINTER EGG PROBLEM

Commercial Breeders Have Discovered Importance of Green Food in Ration of Fowls.

The most important discovery the commercial breeders have made in the past few years towards solving the winter egg problem has been the discovery of the value of green food in a tender, succulent form in the ration.



NEED QUALIFIED SHEPHERDS

Important That Sheep Raising Be Encouraged Where Conditions Are Suitable for It.

(Prepared by the United States Department of Agriculture.)

"I am not convinced that a general campaign to increase the number of small-farm stocks of sheep is thoroughly wise unless the field for such an effort is first prepared," said Dr. J. R. Mohler, chief of the bureau of animal industry, in an address before the More-Sheep-More-Wool association. "There must be established a popular understanding of principles which experienced shepherds are likely to take for granted.

"With dairy herds we find that best methods of production seldom prevail when only a few animals are kept. The owner of a very small herd is not often interested in better breeding, feeding or disease control. He is not a dairyman. But when he has a herd of a dozen cows or more he becomes a real asset to a great dairy business.

"So with sheep. We must aim, it appears to me, not so much for an increase in the number of flocks as an increase in the number of sheep kept by men who are real shepherds or have the qualifications and desire to become shepherds. Nor should we forget that farmers in general may not be versatile enough to add a profitable



Select the Individuals of the Foundation Flock with the Greatest of Care.

flock of sheep to their present live stock. It is, therefore, important that sheep raising be encouraged chiefly where the land and other conditions are suitable for it."

MANY ASSOCIATIONS FORMED

One of Purposes is to Eliminate Scrub Sires and Replace Them With Purebreds.

Fifty-nine live-stock breeders' associations, with a reported membership of 1,824, were organized during the last fiscal year with the help of the United States department of agriculture extension specialists. In addition numerous calf clubs were organized among the boys and girls. Much of the work is being done in regions where the beef-cattle industry is practically new.

One of the purposes of beef-cattle extension activities is to eliminate scrub bulls and replace them with purebreds of good quality. The federal workers co-operate with the state agricultural colleges through their extension divisions and particularly with county agents.

SILAGE FOR LITTLE CALVES

Heavy Ration Fed to Young Animals Has Tendency to Cause Repeated Scouring.

Young calves under a year old do not benefit from a heavy silage ration, because on such young animals it has a tendency to cause repeated scouring. It can, however, be satisfactorily fed to calves between six months and one year old, provided it is limited to a small part—say not more than one-third—of the weight of the entire ration.

GREATEST DEMANDS ON EWES

Imperative That Animals Be in Proper Condition Prior to Lambing for Best Results.

It is during the suckling period that the greatest demands are made on the ewes, and in order to have the ewes in condition to stand this drain on their systems it is necessary for us to see to it that they are in good condition of flesh prior to lambing.

MAKE PROFIT OUT OF LAMBS

Young Animals Must Be Fed for Period in Dry Lot on Harvested Feeds for Top Price.

While it is entirely possible to make money out of lambs by feeding entirely in the fields, yet to make market toppers they must be fed for a period in the dry lot on harvested feeds, some feeders combining field feeding and dry-lot feeding at the same time.

Orchard Information

MUSCADINE GRAPE IN FAVOR

Its Products Are Among the Most Delicious Made From Any Grape—Make Money for Women.

Did you ever eat muscadine marmalade? Or drink muscadine grape juice? Well, a great many people haven't, either, although the muscadine was growing over the southeastern coastal plains when the white man came and has grown there ever since. Its products are among the most delicious made from any grape. Here is a recent proof of that. Just before Christmas the dining car superintendents of three of the largest railway systems in the South secured, with the aid of the United States department of agriculture, a quantity of home-made muscadine grape products. The patrons of the dining car exhausted them in just one-third the time that it was thought they would last, and the superintendents telegraphed rush orders for additional supplies.

That muscadine grape products are



Jellies, Marmalades, Juices and Other Products of Grape Are Wholesome, Delicious and Economical.

coming into the popularity they deserve is due to the work of the home demonstration agents and specialists of the United States department of agriculture and the state agricultural colleges. The girls and women of the states where muscadine grapes can be grown are not only utilizing the grapes already available but are establishing and cultivating many home vineyards, with the purpose of making for home use and for market standard jellies, marmalades, juices, and the like. Many women and girls are adding materially to their income by the sale of these juices.

TRADE TERMS ARE APPROVED

Praised and Recommended by Four Large Fruit and Vegetable Trade Organizations.

Four large fruit and vegetable trade organizations have approved and recommended and one of them has adopted the recently issued "Standard Rules and Definitions of Trade Terms for the Fruit and Vegetable Industry," according to information reaching the bureau of markets, United States department of agriculture. In a recent statement endorsing these standard trade terms the bureau stated that they had been adopted by four large fruit and vegetable organizations. Only the American Fruit and Vegetable Shippers' association has adopted these rules and definitions, although they have been approved and recommended by the National League of Commission Merchants of the United States, the International Apple Shippers' association, the Western Fruit Jobbers' Association of America, as well as by the American Fruit and Vegetable Shippers' association.

RUBBERS HANDY FOR PRUNER

May Save Accidents Due to Falls and Prevent Scratching and Tearing of Tree Bark.

An old pair of rubbers will be useful for the pruner who must climb in the trees. They may save accidents due to falls and they prevent the scratching and tearing of the bark which sometimes occurs when the operator is working in the trees with rough heavy shoes.

HORTICULTURAL NOTES

Pruning may be done on warm days.

Examine your trees as soon as they arrive and see that they are free from disease and insects.

A dime saved in using a dirty package will knock a quarter off the selling price of your fruit.

Skillful horticulturists know how to propagate fruits and reproduce the species that are worth it.

Take care of the orchard or use it for firewood. Trees unsprayed and not pruned are a source of loss to their owners and to their neighbors.

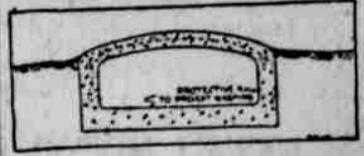
ROAD BUILDING

BUILDING CONCRETE CULVERT

Plan Outlined to Do Away With Construction of Forms—Remedy for Undermining.

Instead of going to the trouble and expense of making forms for the concrete culverts, if the ditch is temporarily filled with earth and tamped, these may be made with no forms at all. One such culvert was made several years ago that has withstood time and frequent use and is still without any cracks.

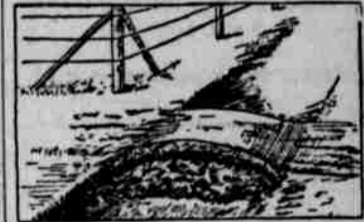
The illustration shows how this type of culvert or bridge is constructed, writes Dale R. Van Horn in Missouri and Kansas Farmer. If a piece of land is to be drained, this may be



How Culvert is Constructed.

built first and the ditch dug afterward. If an old ditch is to be bridged, the fill may be made for the time being and later removed. The concrete is mixed in the right proportions and laid on the rounding surface to the proper thickness, and with suitable reinforcing. Trenches should be dug at either side to make a good footing to hold the culvert rigid and to take the weight of loads passing over it.

Many concrete bridges fail to stand the test of high waters. If the footing is too shallow, they undermine



Remedy for Undermining.

during a flood, and either crumble or are made unsafe. A simple remedy for this is to provide a shallow wall running across the upstream side of the opening, and a part of the bridge. This should extend to the bottom of the side walls and should not be over five or six inches above the low water level. This checks any tendency toward undermining and prevents debris from wedging in the bridge.

GOOD ROADS INDISPENSABLE

Highway Improvement is a Business Proposition With Farmer and City Dweller.

When it takes four horses to pull an empty wagon to town and wheat is going off in price each day; when the mail carrier gives up in despair, and the children cannot get to school, the farmer cannot help wondering how much this condition is costing him each day.

Figure as he may, he cannot get away from the fact that good roads are indispensable to agricultural prosperity.

The city dweller is alike concerned. The farm on a good road has scores of possibilities for the development of its resources to every one open to the farm on a poor road. Increased expenditures—greater buying powers.

In the early days of poverty many a county bonded itself for hundreds of thousands of dollars to secure railroads to promote agricultural development. Three-fourths of all the freight the railroads haul must sooner or later move over the public highways, and every ton so moved is costing at an average rate of 23 cents per mile.

Verily, road improvement is a business proposition—a matter of dollars and cents.

PENNSYLVANIA NOW LEADING

Keystone State Led Nation in 1919 in Mileage of Contracts Let for Road Building.

Pennsylvania led the nation in 1919 in mileage of contracts let for road construction, according to the state highway department. Up to January 1 the state awarded contracts for the building of 679.26 miles of durable highways. Its nearest competitor was Illinois, which contracted for 510.70 miles.

Pennsylvania's 1920 program calls for the construction of approximately 800 miles of roads. The department says that Pennsylvania is far ahead of other states in the organization it has perfected to build durable highways.

BETTER SCHOOL ADVANTAGES

Average of School Year Is 180 Days in Five States Having Best Road Systems.

Good roads make it possible to have better school advantages. In the five states of the Union which have the best system of public highways the average length of school year is 180 days. In the five states that have given the least attention to road improvements the school year is less than half that long.