

OF INTEREST TO FARMERS

WINTER DAIRY FEEDING

The successful winter feeder of dairy cattle is the man who can most nearly approximate springtime conditions during the cold months of the year. When the cows are at pasture they have an abundance of succulent and palatable feed. In the winter they do not have an opportunity to get this except through the intelligence and ability of the herdsman who is caring for them. Hay, silage and grain are the main standbys for winter feeding. These in the main furnish all the requirements for maintenance and milk production. In general the maintenance requirements will be taken care of by the hay and ensilage and the grain will furnish the nutrients where with to produce milk. The percentage of protein in the grain should be governed by the quality of hay that is to be fed. If the hay is alfalfa or clover, a ration containing 16 per cent protein will give decidedly good results, but if the hay contains a considerable percentage of the nonleguminous crop the percentage of protein should be stepped up to even as high as 24 per cent where the hay is all timothy. The quantity of grain to be fed should be in direct ratio to the quantity of milk produced. In the case of the lower-fat-producing cow this would mean about one pound of grain to four pounds of milk. With the high-fat-producing animal this ratio may be even as narrow as one pound of grain to two and a half pounds of milk. While hay, silage and grain will take care of the absolute requirements of the dairy cow, still better results may be secured if some additional succulence besides silage is furnished. The root crops such as mangels and beets are highly desirable for this purpose and their value will be found to be far greater than the analysis of the roots shows. However these root crops are not always available in which case beet pulp soaked for 24 hours before feeding will produce very much the same desirable effects as the root crops themselves. The quantity of beet pulp to be fed should run anywhere from four to six pounds to the cow. This will absorb a great deal of water and furnish an abundance of succulence. In buying beet pulp it is well to take small samples of various brands, place them in half-pint bottles and allow them to soak in water for 24 hours. At the end of this time select that brand of beet pulp which has absorbed the most water and has a clear, bright look and a sweet smell.

BEST SEED TO GROW

In 1930 the United States grew 525,250 acres of tomatoes with a farm value of approximately \$52,978,000. These tomato values do not include those which were grown in the farm or back-yard garden, the value of which is surprisingly large. One of the most important factors influencing the yield of both market and can-house tomatoes is the selection and use of good seed. The grower surely realizes this fact, because I have seen hundreds of acres of tomatoes in Florida which were small and not true to type, and naturally the grower had to take the loss. This same thing is true in practically all tomato-growing areas, and the sooner the individual grower wakes up to the fact that by home selecting and saving his own seed, the quicker these unforeseen failures will change into success. Make a personal inspection of the entire field and stake with prominent stakes those plants which come up to the ideals for which you are selecting. One must bear in mind that the plant as a whole must be considered and not just the individual fruits on that plant. After the plants have been staked a handful of fertilizer spread around the staked plants will tend to give vitality to them which will be observed in the resulting seed. A plant should be free from disease and must show vigorous growth and good leaf color. A heavy set of uniform fruit is an essential characteristic. They should be deep between stem and blossom end and ripen evenly throughout. Allow the fruit to ripen on the plant before picking. After the fruit is picked either cut the fruit in half and squeeze out the seed or place in a wooden or earthen vessel—never in metal containers—and mash them into a pulp, exposing the seed. Stir vigorously and wash as soon as the mucilaginous material frees itself from the seed. By adding water the pulp may be floated off and the good seed will stay in the bottom of the vessel. Spread these seeds out on newspaper and sunlight. When the seed is dry, store either in a ventilated glass container, or cloth or paper bag, and keep in a dry place of even temperature.

CONCRETE TRENCH SILO

Many farmers and dairymen with small dairy herds have been wishing for some method of constructing a permanent silo at low cost. This wish is realized, at least in the form of a trench silo with concrete walls. This type of silo can be constructed without the use of forms, with a minimum of concrete and with the regular farm help. The silo pit is made with a team, plow and Fresno. After the bulk of the dirt is taken out by the above method the walls are trued up with a spade. The side walls should have a slope of about one foot horizontal to four feet vertical. That is, a silo eight feet deep and 10 feet wide at the top should be about six feet wide at the bottom. This is the proper size for the average small dairy herd. Its capacity is a little less than a ton per foot length. The silo may be made any desired length. Two layers of heavy hog wire should be put on the side walls, one layer placed up and down the other horizontally. The pieces of wire should just lap and be tied together at intervals with balloon wire so they will lie smoothly against the wall. It may be necessary in some places to drive pegs into the walls and fasten the wire to them to hold it within an inch or so of the wall. The concrete is put on the walls without the use of any forms. One man holds a plasterer's trowel against the wall at an angle while another man places the concrete above the trowel with a shovel. As the concrete is pressed and tamped with the trowel the wire should be pulled from the wall a little if necessary, so that it will be completely imbedded in the concrete. The concrete should be put on three to four inches thick. It is best to put it on in layers about a foot in height. That is, start at one end and build the wall about one foot high. By the time the other end is reached the concrete has solidified sufficiently to start another layer. The concrete should be mixed to a jellylike consistency. A sloppy mixture will not stay on the wall and yet the concrete should be plastic enough to stick to the wire. The concrete should be made of one part cement, three parts sand and three parts of crushed rock or gravel. However, if sand is the only available material at low cost the concrete may be made of one part of cement to four parts of sand. The concrete should be placed in one hour or so after the plaster coat has been applied, finish with a coat of cement and water mixed to about the consistency of paint. Apply this with a whisk broom. This coat put on with the brush fills the pores and smooths the uneven surface. The walls should be sprinkled with water several times a day for a few days to insure a good job of curing. If the subsoil has good drainage a concrete floor is not necessary. It, however, may be put in later if desired. The silo may be built in a bank completely under ground or it may be made partly under ground and partly above ground. It is well to bank the dirt at least a foot high to insure surface water draining away from the silo. This should be done before starting to concrete the silo so that no forms will be needed. One end of the silo may be concreted the same as the sides, leaving the other end with a long, gradual slope, so that a wagon or cart may be backed into the silo to take silage out, or both ends may be given a gradual slope. It is advisable that the ground on which the silo is built be sloping, so that it can be drained from the bottom in case the subsoil is of a tight nature that holds water. If a concrete floor is desired it should be made of an expansion joint should be put the full length down the middle and also expansion joints should be put across the ends where the floor unites with the sloping ends. Unless the sides are longer than 80 or 90 feet no expansion joints are necessary, because they are free at both ends. It is well to concrete the surface of the ground at the top of the wall to keep water from running behind it. The trench silo is not new, but this method of concreting it is new. This new method has brought the cost down to where the average farmer can afford to build a silo. One sack of cement and 400 pounds of sand will build one foot length of the walls. Thirty-two square feet of hog wire is needed for each foot length of silo. Bulletins on the use of the trench silo may be obtained from many of the state agricultural colleges.

APPLE CANKER REMEDY

Cankers in apple trees are a constant and dangerous source of disease. The cankers may persist from year to year and in time cause the death of branches and trees. Moreover, if cankers remain in the orchard, diseases are likely to spread rapidly and the life and profitability of the trees may be markedly reduced. In controlling canker the orchardist should cut and burn all affected twigs and branches which can be spared. In so doing the grower may be able to rid the orchard of the source of the disease. Make cuts from six to eight inches below the cankered area, if possible, in order to be sure of eliminating all the infected parts. All wounds should be disinfected, and if over one inch in diameter painted with white lead or liquid asphalt to prevent drying out. Copper sulphate, one pound to six gallons of water, or corrosive sublimate, two ounces to 15 gallons of water, are good disinfectants. Where the branch is too valuable to cut, or in case the canker spot is located on the main trunk, the diseased tissues should be removed about four to six inches above and below and from two to four inches of the side. A thorough dormant spray, using a strong fungicide like lime-sulphur or Bordeaux, is valuable if applied just as growth is starting, or slightly before to coat over infected areas and to cover parts through which entrance of some of the cankers might be gained.

SOY BEANS AS SUPPLEMENT. Since most corn belt grains are short of protein and soybeans contain more of it than any other crop commonly grown in this area, the soybean has unusual possibilities as a home-grown supplement to other grains used for livestock feeding.

A strawberry plant wilts; then look for a white grub at its base.

Losses in the silo. During the normal process of silage formation certain changes take place with a resulting loss of nutrients. In the past it was believed by many that these losses were very large, but recent work has shown that the losses are relatively small. There are two kinds of losses in the silo, the unavoidable losses necessary for the formation of silage, and the avoidable losses which are due to the decomposition of the nutrients caused by the imperfect construction of the silo, surface spoilage and losses of soluble nutrients from the bottom of the silo. It has been found in a careful study of 54 silos that the unavoidable loss

DON'T FORGET MASH. Keep mash before the laying hens all summer. It will mean more eggs this summer and more next fall when prices are highest.

Girl at the Top in Health Tests



Millions of boys and girls all over the world, thousands of them right here in the West, are being restored to health and strength by the purely vegetable tonic and laxative known as California Fig Syrup and endorsed by physicians for over 50 years.

Children need no urging to take it. They love its rich, fruity flavor. Nothing can compete with it as a gentle, but certain laxative, and it goes further than this. It gives tone and strength to the stomach and bowels so these organs continue to act normally, of their own accord. It stimulates the appetite, helps digestion.

A Kansas mother, Mrs. Dana Alligre, 610 Monroe St., Topeka, says: "Bonnie B. is absolutely the picture of health, now, with her ruddy cheeks, bright eyes and plump but graceful little body and she stands at the top in every health test."

Much of the credit for her perfect condition is due to California Fig Syrup. We have used it since babyhood to keep her bowels active during colds or any children's ailments and she has always had an easy time with them. She always responds to its gentle urging and is quickly back to normal."

Ask your druggist for California Fig Syrup and look for the word "California" on the carton so you'll always get the genuine.

A New Wrinkle

"So you didn't sell that man a car?" inquired the boss peevishly. "How could I?" argued the salesman. "He wanted a car with a door that slammed shut without making a lot of noise!"

It's all up with the artist who can't draw his breath.

A man must get a thing before he can forget it.—Holmes.

FIRST HIGHWAY OF STEEL IN AMERICA

Horse Railway in Massachusetts Pioneer.

It is common historical knowledge that the first railroad in the United States was a horse railway in operation at the Quincy Granite works at Quincy, Mass., in 1826. During the next several years various measures were made to get railroading under way. A commission of the Massachusetts legislature reported in 1828 on the possibility of constructing a railway from Boston to New York and affirmed that "animal power is better adapted."

The record of the Massachusetts legislature in 1827 reveal that the project of a railroad from Boston to the Hudson river was held up to ridicule by our solons on Beacon hill. The idea of a railroad across the hills in Worcester and Berkshire was too extravagant to deserve anything but to be laughed at. As late as 1833 a prominent man in Connecticut thanked God he lived in a hilly country where it was impossible to build railroads.

Despite early opposition, however, railroading soon began in earnest. In 1830 the subscription books of the Boston & Lowell railroad were opened and 370 shares of \$50 par were subscribed for out of a total offering of 1,000 shares. The starting of the Lowell railroad caused a heavy slump in Middlesex canal stock.

Close behind the Lowell railroad came the roads to Worcester and Providence. The first locomotive set in motion in Boston was on the Boston & Worcester tracks in late March, 1834. Rails were laid out as far as Newton and the company delayed opening for traffic this completed section of the road only because it was compelled to await the arrival of the engine driver imported from England to take charge of the English built locomotive. In June, 1835, the railroad was completed to Worcester.

60 years of BABIES



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The formal opening took place on Saturday, July 1, 1835. The railroads to Providence and Lowell had been opened a few days before the Worcester road, the former on the 11th and the latter on the 27th day of June, 1835.

The Boston & Worcester was completed through to Albany in 1841 and the event was celebrated on December 27 of that year by the entire Boston city government going in a body to Albany to celebrate. They had their junkets in those days. The Fitchburg road was opened to its western terminus during 1845. It was in the same year that the Old Colony railroad opened through to Plymouth.

The Coward!

Lawyer—I think I can get you a divorce, madam, for cruel and inhuman treatment. Do you think your husband will fight the suit?

Woman—Fight! Why, the little shrimp is afraid to come into any room where I am!—Pathfinder.

Some may indulge in all the free speech they please because nobody cares.

A word to the wicked is sufficient—if you call him a liar.

Indian Relics Tell Story. A small group of Indian relics recently found near Center City, Wis., was believed to tell the story of an early hunting episode. William George Nelson, farmer, was gathering maple sirup sap when he came upon the relics—a half dozen arrowheads, an Indian stone knife, two bear teeth and a huge bear claw. Reconstructing the scene, Nelson was able to picture a fight between a group of Indians and a huge bear.

Police Shoot at Movies

Police of Berlin are being taught to shoot at running objects by pictures thrown on the screen by a motion picture projector. The scenes show humans and animals racing across a small screen, and to hit them requires skill. The sharpshooters are required to make good scores at this practice work before they can join the regular squad.

Poor Time to Spring It

Nurse—Have you told Mr. White he's the father of twins? Maid—No; he's shaving.

Because there are ugly things in this world, is no reason why we want to hear about them in every chapter. Novelists, take notice.

There's No Denying These Facts!

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Gum-Dipping penetrates every cord and coats every fiber with liquid rubber. This minimizes internal friction and heat, the greatest enemies of tire life.

Two Extra Cord Plies Under the Tread—give stronger bond between tread and cord body and greater protection against punctures and blowouts.

Because distributors of special brand mail order tires cannot meet Firestone extra values, they attempt to confuse car owners with bold claims and misleading statements. But remember—there's no denying the FACTS of Firestone extra values.

Check them for yourself—today. Go to the Firestone Service Store or Service Dealer in your community. Compare sections cut from Firestone Tires and special brand mail order tires and others. You be the judge!



Table comparing quality and construction of 4.75-19 tires. Columns include More Weight, More Thickness, More Non-Skid Depth, More Plies Under Tread, Same Width, and Same Price. Compares Firestone Oldfield Type, Firestone Sentinel Type, and a Special Brand Mail Order Tire.

Table comparing quality and construction of 4.50-21 tires. Columns include More Weight, More Thickness, More Non-Skid Depth, More Plies Under Tread, Same Width, and Same Price. Compares Firestone Sentinel Type, Firestone Oldfield Type, and a Special Brand Mail Order Tire.

Table comparing prices for various tire sizes. Columns include Size, Firestone Oldfield Type Cash Price Each, Special Brand Mail Order Tire Price Each, and Firestone Sentinel Type Cash Price Per Ply.

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Firestone BATTERIES. Give extra power and longer life at lowest prices. Made and guaranteed by Firestone. Trade in your old battery and be sure your car will start quickly even in coldest weather.

*A "Special Brand" tire is made by a manufacturer for distributors such as mail order houses, oil companies and others, under a name that does not identify the tire manufacturer to the public, usually because he builds his "best quality" tires under his own name. Firestone puts his name on EVERY tire he makes.

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