

GOOD FOOD AND PURE WATER FOR COWS.

GIVE THEM AN ABUNDANCE OF THESE DURING THE HOT DRY SEASON.

At this season of the year the dairyman, who has not made adequate provision for supplying his cows with supplementary feed, will find his supply of milk dwindling away fast. The feeding of supplementary feed should begin as soon as the pastures show signs of fading, or as soon as the cows begin to show the least sign of shrinking in their milk. Very often a dairyman will grow fodder for feed during the summer months, but will not begin to cut it till his cows have failed considerably in their flow of milk. It always pays to begin feeding supplementary feeds even before the pastures begin to dry up. The object of all such feeding is to keep up the supply of milk during the dry season. If a cow is allowed to run a week on a dry pasture without extra feed she will quickly shrink one-quarter or one-half in her supply of milk, and when she does it will be extremely difficult, if not practically impossible, to get her back to her normal flow even if she has a good supply of succulent foods afterwards. The successful dairyman will always aim to keep his cows up to a normal flow of milk by extra feeding during the summer months. It is not the cow that gives a large flow of milk during May and June and drops it off one-half during the balance of the season that will pay, but the cow that gives a good steady flow all the season through. So if you have not begun to feed your cows extra feed do not delay any longer, but begin at once.

The flow of milk during the hot weather will also be helped if the cow has plenty of good pure water to drink. Many dairy farms have not this "boon" and the cows are compelled to quench their thirst at some stagnant pool or some half-dried up creek where the water is totally unfit for producing good milk or a large quantity of it. If a cow has plenty of pure water she will drink more of it and thereby increase the flow of milk. If, however, she is compelled to drink some foul stinking stuff, she will not increase the flow of milk, as she will not drink enough of it nor will the milk be of the best quality. If there is no spring creek on the farm, every farmer should have a good well and if the pump is operated by a windmill so much the better. July and August are the hardest months in the year in which to make good butter and cheese and the patron can help the maker in a very great degree indeed by supplying his cows with plenty of good succulent food and an abundance of pure water and by taking special care of the milk. Do not let harvesting operations tempt you to neglect the cow and the milk during the hot weather.

HOW TO BUILD A ROUND STAVE SILO

If you have not built a silo there is plenty of time yet, before the corn is ready, to erect one, especially a round stave silo. These silos are coming into general use for the ordinary farm, and can be built at a comparatively low cost. It is believed now that a round stave silo will last longer than a

wooden square one, and its circular form does not admit of as much waste. The following detailed description of how to build one, from an address by J. W. Billingsley before the Indiana State Dairy Association, will be of practical value to parties desiring to build a round stave silo:

"Size, ten feet six inches in diameter, outside measurement; height, nineteen feet.

We contracted with a planing mill company to select yellow pine, clear of knots, size 2x6, twenty feet in length. The pieces were planed, making both sides smooth, and the edges were center-matched, with the inside surface one-sixteenth of an inch narrower than the outside, so as to form the circle when set up.

THE FOUNDATION.

We drove a stake into the ground for the center of the silo, leaving the stake to project above the ground about eight inches; then finished the top of the stake so as to allow a board with an inch hole in one end to fit on the top. Five feet and ten inches from the first hole in the end of the board we made another inch hole, through which we passed an old broom handle, sharpened at one end, and inserted far enough to make a mark on the ground. With our last stake we inscribed the circle for the outside of the wall. Then using another hole we inscribed the circle for the inside of the wall. The excavation for the foundation was then made to the depth of ten inches, throwing the loose earth on the inside.

The wall was built up to the height of fifteen inches, the brick being laid in mortar of

set on top of the circle wall, so as to allow about three inches of the wall to project outside, and about the same on the inside.

HOOPS.

The hoops for the silo are one-eighth inch thick by three inches wide, iron, with half-inch stirrup connections fitted on the ends of the bands, and a six-inch screw thread cut on the end of the stirrups. The method of securing and tightening the bands, using a four-by-four oak piece set perpendicularly on the outside of the tub, through which the ends of the bands are fastened and tightened.

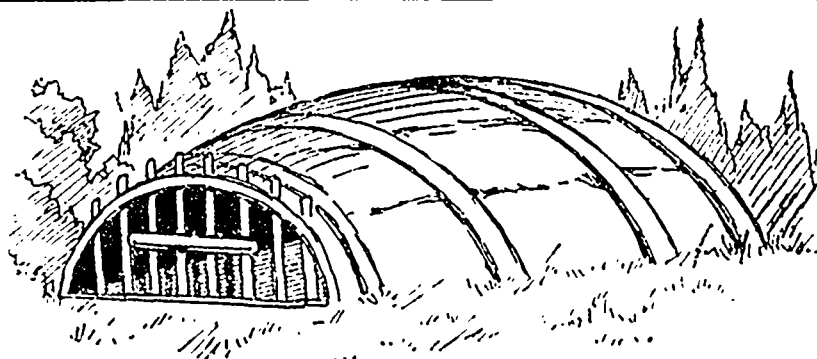
The bands were easily placed in position and the silo staves driven up closely together, after knocking off the cleats on the inside.

OPENINGS.

In setting the staves, when the side was reached, where it was desirable to have openings through which the silage might be thrown out, one of the staves was sawed into at the top and bottom of the intended openings, and the tongues of the match trimmed off on both sides, so that when the staves were set up a saw might be inserted to cut out the doors, sawing at an angle that would let the pieces of cut staves come out readily.

In filling the silo, tar paper was tacked on the inside of the doors to exclude the air. The bottom of the silo was covered over with sand to the top of the wall, and then coated with cement so as to back up against the wall, a height of two inches or more, the entire bottom being concaved.

On the outside of the silo the earth is banked against the brick wall to the top, and a coat of cement backed up against the staves on the top of the wall on the outside, the same as on the inside.



A Barrel Hen-Coop

The above illustration, taken from an American exchange, represents a cheap and convenient method of constructing a hen coop. For a setting hen a coop of this kind is very convenient, because when the eggs are hatched the chickens are well sheltered and have room to run about with perfect safety. The plan of construction is very simple, and there is nothing to prevent every farmer having a coop of this kind.

equals parts of cement and common lime, with the usual proportion of sand. After building the wall, the earth on the inside was levelled down and packed firmly and concaved about four inches to the centre, leaving the wall about four inches higher than the earth joining up to it, on the inside.

SETTING THE STAVES.

With the staves at hand we began the work of setting them. First, the staves were squared at both ends, making all of them of equal length, after which five of them were laid on trestles evenly, and three lines scribed across them, a line two feet from each end, and one midway between the top and bottom. The staves were paired, and half inch holes were bored into the edges opposite to each other under the scribe marks, excepting the outer edges of the outside staves. Then, with the use of the dowel pins, we drove the staves up closely together and then stood the five staves on end on top of the wall, and tacked on braces so as to secure them firmly in position, after which we added one stave at a time until the tub was complete. We used only a tail step-ladder to fit the upper end of the staves, the work, in most part, being done on the inside of the circle. At first, common plaster laths were used for cleats at top, centre, and bottom, to bind the staves in position, but we found that we could not form a circle and hold the staves in place. We then tried four barrel staves split into two pieces, and the bulge of the staves fitted them exactly for forming the circle. After this no trouble was experienced in progressing rapidly with the work, fastening each stave securely in position, by tacking three lines of cleats made of barrel staves on the inside, one line near the bottom then another near the top, and one midway between. The silo staves were

ROOF.

The silo is covered with a shingle roof. We might have made a flat roof, using tar paper for less than half the amount the shingle roof cost. We prefer the latter for the reason that it is more durable, and in better taste with the other buildings. The cost of constructing a silo figures up as follows:

Yellow pine staves, 1,300 feet, \$25 per M.	\$32 50
500 brick, lime, cement, sand and labor	6 00
Six iron bands, 1/2 x 3, complete	8 85
Carpenters' work, \$1.75 per day	5 00
Nails, bolts for doors and extra labor	2 00
Coat of paint	2 00
Shingles and lumber for roof	5 00
Total	\$61 35

This silo is estimated to hold twenty five tons of silage when settled, costing \$2 45 per ton capacity.

A larger silo will cost much less per ton capacity. For instance, we estimate that a silo, sixteen feet in diameter and twenty four feet high, will have a capacity of 96 tons, and will cost about \$100. A silo, eighteen feet in diameter and twenty-four feet high, will have an estimated capacity of 120 tons, costing about \$120, or one dollar per ton capacity.

Many of the round stave silos built in Ontario are made on the level ground without any brick or stone foundation as in the above, and have given good results. It is not absolutely necessary either to bevel the staves. If the edge of one plank be

placed so as to come against the centre of the flat surface of the other a practically air-tight wall can be made. The moisture from the silage will cause the planks to swell and the sharp edge will press into the flat surface of the plank, making the whole secure from air from without.

THE SHEEP MARKET.

THE KIND OF SHEEP AND WOOL THE MARKET REQUIRES.

If we make an inspection of the sheep brought in for sale in some of our largest stockyards, as I have done in the past few days, one cannot but ask, "What kind of beasts are these?" Eighty-eight per cent. of them are unworthy of the name of sheep; they are not even fit for guano, for flesh they have not, bones they are not, wool is not. While this sort of nondescript trash is supplied to our markets sheep husbandry should not lay claim to a place. In our day of advanced agriculture and modern civilization they are not what is wanted either at home or abroad. Even to-day men who ought to know better are making experiments with breeds that if followed by many will keep us back in the business another decade. Put up two questions where you can always see them, then work to them. They are these: What kind of mutton does the market demand? What kind of wool does the market want? Remember always that it means to-day, not what the demand was fifty years ago, not last year or yesterday, but to-day and the future.

The highest priced sheep sold in our markets to-day are those that are suited for the clubs and hotels in our largest cities. For such sheep a ready market is found at 25 and 30 cents per pound. When you can get \$37 to \$42 for the carcass of a lamb or wether, you are entitled to distinction as a sheep grower. In the large stockyards of our country the highest price is paid for export mutton. Such sheep must be well matured at an early age, large and uniform, with good solid flesh, not too fat and not at all lean.

Ordinary common sheep put in pens and gorged on rich feed or swill from malthouses will not meet the demand, for such sheep are too fat and the meat will never harden. Sheep must be of good blood, capable of maturing early, of good constitution by heredity, so that they can attain size and weight with exercise and on dry feed. The exercise makes muscle and that is lean meat. Such sheep stand shipping and do not shrink or soften. Our export sheep come in competition in the foreign markets with those from many other countries, and we should take a national pride in having our product compare favorably with any others. We have greater range, better feed and more favorable conditions to grow perfect animals than almost any other country, and all it needs to give us the credit abroad of producing the best and securing the maximum price and maintaining a steady trade is for our growers to use their brains and couple their work with intelligent reasoning.

The kind of wool in demand on both sides of the Atlantic is of exactly the same character—a medium delaine, not too fine and not too coarse. But we need not expect to ship any wool