

culturalists both adopt a certain width, you may believe that it is about right.

Should the cows face in or out? This argument has never been settled, although in practical construction the "outs" are in the majority. Those who value a cleanly appearing stable, and this includes all city milkmen whose premises are liable to inspection, will favor the tail to tail arrangement, as the walls are not then splattered with filth.

It is also convenient for driving a team or sled through and loading the manure directly; especially will this feature appeal to those who haul manure directly to the fields each day. Even though we do have to have two feeding spaces, the overhead feed carrier has so simplified the feeding operations that the extra work entailed by facing the cows out is not appreciable. The smaller details in the stable construction are so admirably described by Prof. Larsen in a recent number of Kimball's Dairy Farmer that we quote him as follows:

Details in Arrangement

"The 36-foot width of dairy barn is outside dimensions. This would leave only 34 feet 8 inches, or 17 feet 4 inches of actual space to be utilized for each row. This would be divided as follows: 4½ feet for feeding alley, 2½ feet for manger, 8 feet for stall for large cows, 1 foot 4 inches for gutter, and 4 feet for one-half of driveway, or total of 17 feet 4 inches. The manger should be smooth and have an even pitch toward outlet of about one inch in each 10 feet to permit the water to run away. The individual trough system of watering is probably not advisable in this north-west climate, and in the average dairy farmer's barn.

"The gutters should have a slight pitch toward the drain, and in addition, the bottom should tilt away from the cow about three-fourths of an inch. If the bottom of the gutter is level, too great a pitch is required to carry away the liquid manure. If the bottom slants away from the cow, the liquid manure does no spread all over the level bottom, but will run off much quicker.

Where the Cow Stands

"The floor of manger and feeding alley should be even. All the floor should be concrete with the possible exception of the centre part of cow stalls. Cork bricks are very satisfactory for covering stalls. I used plank frames in the new college dairy barn, but I would not use them again. I have used concrete with apparently no bad results. The ground was first covered with cinders well tamped, then a four-inch layer of concrete troweled down to a rough surface. If the cows are well bedded, I believe such a stall is satisfactory.

"The stall should sit at about one inch towards the gutter. It is not a good plan to have cows stand in a slanting stall. This slant can be counteracted by making an inch depression in the front part of the stall to extend back from the manger about 14 inches. This gives the cow a level plane on which to stand.

"The drop from the stall to the gutter should be from eight to 10 inches. If it is less, then the cow is more likely to stand in the gutter with her hind feet. This is also about the right elevation to make the cows show up well from behind. If the drop is much more than 10 inches, the cows are more likely to injure themselves in going in and out of the stall.

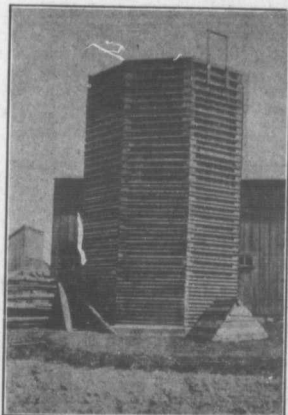
"The gutter should be 16 inches wide. If less than this, the manure piles too high overnight, and liquid manure does not drain away. It should also be wide enough to admit the use of a shovel of ordinary size. If the gutter is wider than about 16 inches, some cows are afraid to step across it. If the cows have to take too long a step across a gutter, they are so likely to slip in the stall when going in and out.

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Raise More Good Cows

By "Herdman."

ON various occasions I have been asked by prospective dairymen to go out and buy on commission for them herds of good grade milk cows. My experiences in this line have convinced me that buying the best cows in a man's herd is next to impossible. Dairy farmers are not selling profitable cows unless they are going out of the business. At the same time, the demand for good cows is increasing. Dairy farmers living near our cities on high-priced land are more and more going out of the raising of heifer calves and are planning to buy all of their milk cows. These dairymen are all convinced



A Silo That Is Different.

Eight-sided silos of the type here illustrated are common in Dundas and Leeds counties of Ontario, but are seldom seen elsewhere. This silo, erected by J. G. Marley, is 15 by 34 feet, and cost \$125 for materials. At the bottom 5 x 7½ are spiked 2 inches apart with four inch spikes. Four feet up every other round is omitted, further up two rounds in three, and at the top three rounds in four are omitted. The inside is lined up with tamarack, tongued and grooved.

—Photo by Ag. Editor of Farm and Dairy.

that poor stock does not pay, and they are all willing to pay a right good price for good heifers and cows.

This is a valuable market, and I am convinced that the raising of good heifers would be a profitable business in districts where good land is comparatively cheap, say \$80 an acre or less, and large quantities of good roughage could be produced with a minimum of cost. The market for good heifers will continue profitable for a long time to come.

The primary necessity for this line of dairy work is good foundation stock with which to start. Poor stock will not sell. One day recently on the Toronto market, when choice cows sold up to \$100 and a few went even above this mark, medium to common cows offering at \$40 to \$60 were taken back home unsold, because nobody wanted them. I have before me now figures from an agricultural college showing that it costs \$60 to raise a heifer to two years old. This is another argument for good stock, as only real good heifers can be sold for more than \$60 in their two-year-old form. I believe, however, that it will cost less to raise heifers on cheap land and with cheap food. I would plan to feed the heifer calves well the first year, but let them exist largely on good roughage and pasture during the second year, and then get them into first-calf shape before they start to freshen at about two and one-half years old. It is at this time that they would be marketed.

Those heifers which promise to do best should be tried out for one lactation period, at least, in the home herd; then, if they fulfill their earlier promise, retained as breeders. They could be made to replace some of the cows that were getting up in years. I do not believe in keeping cows in any case until they are past marking age. By following this plan, too, the herd would be gradually improving, and better prices could be commanded for the stock sold. Of course, the plan would necessitate a well-bred, pure-bred sire.

If I were to add a further suggestion, it would be that the cows freshen so far as possible in the fall, as fall calves are easier to rear into cows of the right kind.

Treat Inflamed Udders Promptly

By J. B. Hadley.

GARGET makes an appearance every once in a while in cows which apparently are in perfect health. The milk in severe cases is either stringy or otherwise altered in character when drawn and collects a yellowish colored sediment on standing. In less pronounced cases there may be little visible change in the milk, but an examination would reveal a large number of germs.

Non-infectious garget is caused by bruises or other injuries, or by a sudden congestion of blood in the udder as frequently occurs in heavy milkers and in heifers at first calving. Affected animals usually make a complete recovery if given 1½ pounds of Epsom salts and their feed is restricted to that of a succulent nature.

The cause of infectious garget is a germ or germ. When many of them are present in the udder not only is the milk changed, as mentioned above, but the udder itself becomes hot and sensitive to the touch.

The importance of the infectious form of garget rests in the fact that it is usually not easily cured and has a tendency to recur. Furthermore, the disease is easily conveyed to healthy cows through the medium of the milkster's hands or contaminated material of any kind, unless precautions are taken to avoid the transfer of the germs.

Temporary relief may be given by bathing the udder with hot water for one half hour each morning and evening. After thoroughly drying the surface of the udder, warm cottonseed oil should be rubbed in with the palm of the hand.

A complete cure is possible in most cases only by drying the cow off at once so that her system may be free to fight the disease-producing germs that are present in the udder.

Trees for Waste Land

John Bishop, Oxford Co., Ont.

I WOULD not advocate the maintaining of forests on good land. There are, however, many acres of waste land that could well be devoted to tree growth.

There are indirect benefits from a proportion of bush over the land. The high winds which have done so much damage in this county in past years are due in no small measure, I believe, to the lack of bush. I have been told that south-western Ontario has a smaller proportion of land under wood than have any of the countries of Europe. Is it any wonder then that winds get a full sweep. I believe too that forests hold moisture and have a tempering influence on the climate. And then beauty counts for something. In those parts of Oxford where bush is interspersed here and there, the country has almost a park-like appearance that is beautiful to behold.

I would recommend pine or black locust for this upland soil. Elm and maple will grow well in swamp land. No kind of trees will grow well where the cows are allowed to pasture the woodlot. Most trees will die if the cows are given free range.

A FRIEND of a farm couple came to go over the new property. They naturally and has for the past 25 years the workable field farm needed little increasing fertility have ever seen.

The soil tends to have done well.

oughly as it is possible great need of the fertility, has been a the day of my vision plowing down but wheat adds nothing has previously taken

plowing it down a wheat, the bigger such more fertility of the farm was should have been summer followed ing of horse man I found the one b the farm. The these cuts are no means there will from the same la is to be kept on

A soil that is long under such farm is a gravelly and it is already needs the very b plans will restore purchased in large ly to the land or

