

production could be easily increased 50 lbs. per cow and as there are over one million dairy cows in the state according to the census report, this at an average price of 20 cts. per pound would mean over ten million dollars additional income for the dairymen of the state, and this at very little more expense on the part of the dairymen.

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DISCUSSION.

Ex-Gov. Hoard: You spoke about giving cows a soiling crop, but you said nothing about using ensilage for a soiling crop. What do you think of that?

Mr. Danks: I think I would prefer silage. Probably it would be cheaper than the soiling crop and feeding them in the summer. If you have enough silage to feed through the summer, I would advise that, as being more advantageous and cheaper than the system of soiling.

Ex-Gov. Hoard: Do you use much roots?

Mr. Danks: A few only. We consider that the silage takes the place of roots as a laxative feed. Just after freshening, we prefer to feed them roots for a few days, rather than to put them on silage too quickly, but otherwise we do not think them necessary when we have silage. We always raise some sugar beets and we use those, and when we are running weekly tests or anything of that sort, when we wish to have a cow do specially well, we feed her roots in connection with silage as they generally will do a little better. But they are more expensive to raise and you can't afford to raise them if you have a silo.

A Member: Do you curry your cows?

Mr. Danks: We groom them, yes.

Question: What are the floors?

Mr. Danks: We have in Madison a cement floor. All the stables have cement floors, but where the cows stand we have a board floor on top of the cement. We found that even where they were well bedded, the cows would stiffen up in the winter

in their joints and so we put the boards over the cement and it is warmer, not so slippery. We keep our cows indoors a large part of the time.

A Member: Do you prefer the sugar beet to the mammoth?

Mr. Danks: The cows relish them a little better.

The Member: Would not a dirt floor be better in front of the cow and boards behind?

Mr. Danks: A dirt floor is a good floor, but it is not so sanitary, not so easily kept clean, which you cannot do with a board floor and much less with a dirt floor. It doesn't cost much to put a layer of boards over the cement and the boards can be taken up and the place scraped out. The boards are made of inch pine flooring and they are matched. The whole thing slopes towards the gutter and we do not find it necessary to take up those boards from fall to spring. In the spring we take them up and scrape them and keep them off till fall again.

A Member: How many beets do you consider a good feed for a common cow?

Mr. Danks: If we didn't have silage, perhaps thirty or forty pounds. On our weekly test we have fed as high as a hundred pounds, merely to see what we could make them do; of course this is with ordinary roughage. Beets contain lots of sugar but not much protein, and of course they are rather expensive, and we prefer silage as being cheaper and fully answering the purpose. We figure beets at about twice what silage costs. We have found that our sugar beets contain about 14 per cent of sugar and you have to feed more protein in the grain. The principal virtue of sugar beets lies in the fact that cows relish them, and they will eat them all up, and if you want to make them eat a lot to make a record on, they are good things. But for ordinary work, I don't think the sugar beets are worth as much more according to their cost in comparison with silage. Perhaps for a man who has only three or four cows, it would pay to raise beets rather than put up a silo, unless he had some other stock to feed. If he has any large number of cattle or steers, or anything to eat the silage, it will pay to put up the

silo. Beets will supply succulent feed in the winter when the cows are eating dry feed.

A Member: How many cows will justify a man in building a silo for?

Mr. Danks: I think where there are eighteen to twenty cows he is justified in building a silo. He generally has other stock beside the cows; in fact, I think fifteen cows a man would be justified in building a silo for, because he gets his feed so much cheaper and gets so much more out of it in the winter.

A Member: Couldn't you build a silo out of something cheaper than wood?

Mr. Danks: It may be cheaper at first, but not in the long run. At Madison we have a wooden silo, boarded inside of the studding and outside with boards. Then it is bricked on the inside and plastered with cement. It is an expensive silo, but it is durable. We have used it six years and it doesn't show a crack in the cement and we expect it to stand a long while. That silo is eighteen feet in diameter and thirty-five feet high, holds about a hundred and fifty-five tons. We feed about forty head and generally have silage to last along into June.

Mr. Everett: I think the concrete silo is the coming silo. The two silos built at the **Morgan Farm** were built of solid concrete. They held five hundred tons of ensilage each. One stood on each side of that barn that was burned, and they stand intact to-day. Those silos were built of one part Portland cement, three parts clean, sharp sand and four parts crushed gravel, laid up in plank moulds, held in place by long bolts that are loosened as soon as the cement sets, the plank raised up and again filled. I don't know just what the thickness of the walls of those silos is. The silos are thirty-five feet deep, eight feet in the ground, and they are practically indestructible. I believe they are going to be the coming silo.

A Member: Does silage keep against the wall as well as in the middle?

Mr. Everett: It does in any silo where the air does not get at it. The house built on that farm I built myself and it is of

concrete from cellar to roof. It cost considerable money, but it will stand for generations.

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## MILK AND HONEY.

N. E. France, Platteville.

The richer the milk, the more and better cream comes to the surface. For the benefit of my county farmers, by repeated effort I was able to bring before you the Cream of all Wisconsin Associations,—namely, the Wisconsin State Dairy Convention. For three days you have had the Cream of dairy experience, and if the valuable instructions here given are applied to our various farms, it will be of untold value. Often have I wished my county dairy farmers could see the beautiful homes, profitable farm stock and milk factories of the speakers you have listened to. Of the many milk factories in Wisconsin I have visited, no one so forcibly impresses the visitor or patron of neatness and pure product as the Hoard creamery of Fort Atkinson. With walls and floor lined with polished white marble, clean machinery, more like parlor furniture, and a number of bright farmers' sons, clad in snow white suits making those beautiful pound prints of butter in a building free from foul odors so often found in Wisconsin factories.

The Governor told you yesterday how to keep pure fresh air in the barn, and the same principle applies in other buildings,—homes or factories. We have heard the instructions, and I dare say we will no longer hold the penny before our eye.

The profitable dairy is dependent first upon the man. If his love, interest, and energy are not for higher dairy standards, with an ideal of perfection before him, I fear his future prosperity. The dairy to some extent is also dependent upon natural sources of support, such as clover. Where the natural growth of white clover is found so abundant as in a large portion of Wisconsin, there will also be found large fields of both