

Sugar Beet Valuable Stock Feed

BY PERCY L. EDWARDS.

THE pulpy matter rejected in the process of sugar making from beets constitutes about 10 per cent of the beet. This formerly waste matter at the beet sugar factories is now put through a process of drying, or baking, somewhat similar to bread baking, and is thus prepared for sacking preparatory to putting it on the market. But a few years ago this portion of the beet was regarded as waste at the factories and a serious embarrassment to the management because of becoming offensive to the public on account of the bad smell when fermented. What to do with it was for a time a perplexing problem. Someone pointed out that European countries were making use of this pulp as stock feed. Then a few farmers having stock and doing business with the factory were induced to haul some of it home. It was soon found that stock ate it ravenously.

Investigation by the manufacturers in France and Germany led to the installing of machinery at some of the plants in this country two or three years ago. Now the factories using this drying process save this former waste and it is now put on the market and sells for \$21 to \$25 per ton, the price varying somewhat in different parts of the country.

Dried Beet Pulp.

This dried beet pulp is now produced at many of the sugar plants in this country. It is put up in sacks weighing 100 pounds either in plain form, that is without the infusion of molasses in the process of drying, and the form known as "molasses pulp," which contains an infusion of from 15 to 20 per cent of crude molasses. Many stock feeders prefer this "molasses pulp" to the plain form, especially the dairy feeders. While the plain pulp is less likely to cause bowel trouble, it is not productive of the same good results in increasing milk flow on dairy cows.

As feed for dairy stock the dried pulp ration is growing fast into favor with dairymen on the Western Coast. The best method of feeding the pulp, according to the judgment of dairymen, is to moisten it five or six hours before feeding. The pulp will absorb water freely and will swell to quite large proportion. Of course, where beet pulp is fed in this way it furnishes part of the grain ration as well as succulent food. In feeding "molasses pulp," less should be used than when feeding plain pulp. The reason is obvious since the crude molasses used in the infusion contains elements that affect the bowels in greater degree and it is not desired to physic the stock. A ration of five or six pounds at a feeding, for each cow, fed twice a day, with plenty of dry hay and straw, is a good feeding proportion for dairy cows. The grain ration should follow, giving a nutritive ratio of about one in six. Beet pulp is figured as containing about the same value in protein as corn meal and, of course, is much cheaper.

Minimum Cost.

In all matters of stock feeding, the question that governs with both dairy and meat feeders is to feed that selection and proportion which will produce the best result at the minimum cost. All stock feed in these days is high priced, especially grains. So that any considerable addition to the visible supply of feed is to be halted with joy by dairymen, stockmen and the rest of us. The production of dried beet pulp may in time become a factor in helping to solve the high cost of living. It looks as if the sugar beet is to help the butter producer and the meat producer in solving the problem.

Just how important this discovery of how to turn waste material at the sugar plants of this country into a valuable stock food may become will be understood from some figures gathered from reliable sources.

There are in operation in this country 70 beet sugar factories in the territory lying between Ohio and the Pacific Coast. The past season's sugar beet product of this area was considerably over 6,000,000 tons. As before stated, 10 per cent of the beet is waste pulp. In the drying process this 10 per cent is reduced by one-half in weight, leaving 5 per cent of the beet to get to the market as dried pulp. A simple calculation will then show that 300,000 tons of this stock feed might be saved and added to the available supply of the country, if all of the 70 factories were equipped with drying machinery.

Value of Feed.

This product would represent in value about \$6,500,000. Not all of these plants are thus equipped. Many

of them are and eventually all will be. At the factories where the pulp is now being prepared for the market, the saving in the economical management of the business is figured as an important factor in the success of the business.

But dairymen and stockmen should know of the value of the sugar beet to their business. The feeding of the wet pulp as it is rejected at the factory has produced such good results where dairy cows are concerned that there should be no waste of this by-product. It is well worth the time and trouble of hauling from the factory. It will cost but little else. Although raw sugar beets may be fed to stock, allowing them to bite and chew the roots, such a practice is unsafe on account of the disposition of stock to swallow chunks of the roots and choking on them. If fed raw the beets should be sliced fine enough to prevent choking. Sheep and hogs may be fattened on the loose leaves and roots left in the fields after harvesting the crop. They will eat the last bite that is left. Many herds of sheep are prepared for the market in this manner in the Rocky Mountain country and the Pacific Coast.

War and Mutton.

Just what immediate effect the European war will have on the meat situation in this country is problematical but the general opinion prevails in packing circles that if the "scrap" becomes general, as it promises to do, there will be an unprecedented demand on Uncle Sam for provisions. War means waste, and also in the case of Europe, the diversion of thousands from the ranks of agriculture to the ranks of the soldier. We will be expected to fill the demand for foodstuffs, as there is no other cupboard to go to that is quite so handy. Everybody recognizes that there will be a tremendous call for salt and pickled meats and probably more than the country can supply providing there are means of getting it over to them.

American mutton, of course, is not an exportable article and there is no chance to send it to feed any of Europe's contending armies unless we freeze it a la Australia. But it is not necessary to export mutton in times like these to have the market boosted.

The fact that much of the pork and beef can be sent abroad will make a bigger hole for the mutton to fill domestically, and the price of mutton will surely seek its natural level. If the big powers decide to fight to the survival of the strongest it is morally certain that meat values will reach a level in this country never before attained. The producers will benefit by this condition and sheep raisers with both wool and mutton to sell will be doubly blessed. A big war will spread a famine over Europe such as was never known before and America will have to furnish the bill of fare for a long time to come.

Live Stock Profitable.

Livestock raising in connection with general farming conserves fertility elements and makes it possible to produce more food on a given area of land. Growing crops and breeding animals should be practiced on every farm of any considerable size if possible, as this kind of farming is surer as a general plan and it saves the farm for future crops.

The Ailing Cow.

Empty stomachs will make "hollow horn." If a cow's coat loses its gloss and is rough and staring give her from one-half to one pound of epsom salts, a cupful of molasses and a tablespoonful of ginger dissolved in a quart of water. Keep her warm and increase her feed, adding roots and linseed meal.

Tonic for Horses.

A handful of linseed meal fed to the horses about three times a week will aid to regulate the system, promote health and a glossy coat.



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