

As for butter, I have a friend that keeps some twenty thoroughbred Jersey cows and makes a fancy butter for a particular market, and he told me not long since that he raised and fed last fall and winter 1,700 bushels of turnips and should try and raise more this year. Now, perhaps we are those unskilled cow keepers that our friend, on page 28, had reference to. But think we shall keep on raising them the same if they do contain a large per cent of water, for I can see no material difference whether we feed the cow food that contains a per cent of water or feed her dry food and she goes to the brook and drinks the water, for 87 per cent of pure milk is water. (1)

NORMAN BROWN.

Hoard.

### FEEDING TURNIPS.

ED. HOARD'S DAIRYMAN:—On page 80 I see a controversy between H. W. C. and Mr. Hyatt about feeding turnips. I have fed large quantities and can say that if fed properly they will not taint milk. They should not be fed until after the cows are milked. If fed before, they will undoubtedly taint the milk; and garlic will not taint milk if the cow is taken out of the pasture where it is before noon.

### FAT AND FOOD.

The nearest approach to a definite modern opinion on this subject may be found in Mr. John Speir's article in the last volume of the Journal of the British Dairy Farmers' Association, wherein it is stated "that the only food which seems to have had any material effect on the percentage of butter in the milk is an excess of brewers' grains." In the cases which led to this conclusion, there was a marked decrease in the fat of the milk.

Hoard

### PRICKLY COMFREY.

ED. HOARD'S DAIRYMAN.—Regarding prickly comfrey. It is a rank grower, starts up early in the spring, and its big leaves soon cover the ground and will kill out all other kinds of vegetation. It can be cut three or four times a year. It cannot be made into hay, as its leaves will wilt down flat, one upon another, and will rot before they will cure. It will grow on any kind of soil and make a yield according to its richness. It is propagated by planting root cuttings (small pieces of root) where the hills are wanted. For the first year it should be cultivated each way a couple of times and hoed. After that if it be cultivated each way once, it will take care of itself, as once well established it will stay as long as wanted, for every bit of root however small, will grow and the roots are so large and fleshy, that were a plant to be shaken free of dirt and laid on a fence corner for three months in summer, it would still grow when returned to the soil. (2)

A friend and neighbor has a patch of about one acre, which he has had for as much as twelve years. For five or six years he tried all kinds of plans to make his stock fond of it. It starved to it, they would eat it, but

were never fond of it, and now for a long time he has given up all attempts to make them eat it, and has been trying to eradicate it. If any one wishes to try it and will write me, I will get them all the roots they want at \$1.00 per 1,000, as that will pay a boy for digging and packing, and I am sure my friend would be glad to give them away in ear load lots or less. I don't know of but one fault with prickly comfrey. It ain't worth a continental after you get it.

J. S. WOODWARD.

Lockport, N. Y.

Have raised and used prickly comfrey for sixteen years and about the only thing that I would recommend it for, is to utilize some rich waste corners about the yard or lots, where a hardy perennial may grow and survive the rough usage of poultry or stock during winter and early spring. For feed culture or truck patches for green soiling, most any other forage plant will do better, with same treatment. As for hay I would as soon think of making hay of cabbage leaves as of comfrey.

J. C. S.

Pendleton, S. C.

Prickly comfrey does best on a deep mellow soil and responds promptly to heavy manuring. It should be set in "hills," 2x3 feet, or perhaps 1½ by 3. The usual way is to plant a single crown of the root in a place. Cultivate as often as the ground may need until the plants get large and strong, and top dress frequently, with good, thorough cultivation thereafter, only when the plants have recently been cut down.

This plant is used exclusively for soiling, except that its root is reported to have some medicinal properties, one of which, or for which it has been used is to "cure!" (cover up?) heaves in horses.

Made into hay the leaves are brittle and repulsive because of the prickles, which seem to have hardened.

Silage made from prickly comfrey at the New York State Experiment Station was disagreeable to all who approached it and the cows seemed highly disgusted by an offering of it. This was very noticeable as they were eager for food, but one smell of comfrey silage caused them to try to pull out of their stanchions.

FRANK E. EMERY.

### FAT AND FOOD.

A New York Dairyman on this Subject—Has made the Experiment and Gives the Figures—Per cent of Fat Increased more than One-Third.

ED. HOARD'S DAIRYMAN.—Of late I have read with considerable interest in your most valuable paper the pros and cons on the subject of feeding butter fat into the milk.

Now, if you, or any of your many readers, think it cannot be done, please just take one good average cow, that has been milked four or five months and put her on to full feed of common marsh hay and about a half bushel of potatoes per day, for a period of forty days, then test her milk with the Babcock test. After this gradually change her feed to early cut and nice clover hay, with one and one-half bushels of good matured corn ensilage, four pounds cotton seed meal the same of old process oil meal, eight

quarts corn meal and eight quarts shorts mixed and in two feeds, one morning and one evening, for four weeks. Then, test her milk, and if it don't change the per cent of butter fats in her milk, I will agree to eat the cow, hide, hair, tallow and all.

About the 1st of February last, I tested the milk of a farrow cow that had been milked ten months (on purpose to satisfy myself on the subject.) Said cow was being fed morning and evening one-half bushel good corn ensilage, with four quarts shorts and bran mixed, with all the nice, early cut clover hay she would eat, and watered twice each day. After being on this feed four weeks, her milk tested, with the Babcock test, three and two tenths butter fat. Then, with some care, I added gradually two pounds cotton seed meal, two pounds old process oil meal and four quarts corn meal, twice per day, (which makes a heavy feed) and in four weeks her milk tested four and five-tenths butter fat. There was no change in the feed of ensilage, clover hay, shorts or bran. Said cow is ten years old this spring, and of common size, and a good, fair, average milker.

Now, Mr. Editor, this was a fair test and I have explained it as well as I know how, and claim, and always have, that the better the feed the better the milk.

J. B. SHATTUCK

Chautauqua Co., N. Y.

### NEW-YORK FARMERS' INSTITUTES DAIRY NOTES.

ED. HOARD'S DAIRYMAN.—Herewith is the more important portion of the dairy discussions at the Philadelphia Institute.

Q.—When shall we water our cows?

A voice—When we get round to do it. Another one—water them at a proper time. The third one—Let them have constant access to it, and it should not be ice water either.

Mr. Converse—Some device should be put into the stable that will give the cows constant access to water. Our stables have a trough 6x9 inches, running the full length of them with running water at all times, at a temperature of about 50 degrees, and we find the cows drinking from fifteen to twenty times a day. Our cows were put into the stables about Nov. 1st and will be kept there till warm weather. We have so kept them in winter during the last seven years. They know nothing of winds and storms and are contented and healthy. Give the cow water when she wants it. Not one of us would want to go out in the morning and drink enough ice water to last us twenty-four hours.

Mr. Woodward—And have to slide down the hill to get it! I am thoroughly in favor of watering my cows in the stable and would not turn them out in winter except in case of fire. Have kept them so housed in winter during the last ten years, and would not change to the old way under any consideration. I also find my cows prefer well, to running water, so I elevate it with a wind mill from a deep well and have it constantly before them, pure and fresh.

Q.—What is the best device for fastening the cows in the stables?

Mr. Converse—Almost any device except the old rigid stanchion. There are several of the improved fasteners and all are good in some respects.

Mr. Woodward—How many of you are using the old stanchions?

The show of hands disclosed an almost unanimous vote. A few were using the swing stanchions; others were using chain fasteners.

Mr. Woodward—The cow will give at least 50% more profit when put in comfortable stalls than when confined in the stationary stanchions. You will find, all things considered, the Bidwell stall the best.

He then described it, told what it cost, and said: "Comfort given the cow will put hundreds of thousands of dollars in the pockets of the dairymen of this state, and I want her to have it. In short, I can't afford to deprive her of it."

Q.—Do you advise the dehorning of cows?

A Farmer—Yes. Take them off at any season, but begin with the calf if you can. A cow is worth \$5.00 more with her horns off than on. Half a dozen farmers present said they had dehorned their cows and would never again keep cows that wear horns.

Mr. Converse gave directions for using caustic potash on the calf's head to stop the growth of the horn, and said: "Apply it when the calf is a week or ten days old."

Q.—Should full cream cheese be branded? If so, why?

Mr. Woodward—I am the great American cheese eater. If only good full cream cheese were made, and every man ate as much of it as I do, there would not enough of it be made for home consumption; but I don't like skim cheese. If I cannot detect it when I buy it or eat, I very soon can after I eat it. When we consumers get it we curse it and the men who made it. I would have a law compelling, not only the putting of a brand on every pound of skim cheese made, but one on full creams as well, and both should give the analysis, viz., the per cent of fat, casein and moisture in them. When we have such a law and it is enforced, we will know what we are buying, and not till then. It don't make any difference to me whether the fat in the milk gets away in the skimmer in the hands of the farmer, or through a separator, or if the cow skimmed it, or it gets away through the ignorance of the maker and slips into the whey vat. Either system makes a skim cheese, which I will not buy if I can help it.

Q.—Is butter made from separator cream as good as that from the creamery?

Mr. Van Alstyne—Yes. I don't believe there was ever any better butter than that which comes from separator cream. In fact, I know there is not, having used all devices for raising cream. This is also the verdict of the man who buys the butter in the market.

Q.—Does it require an expert to run a Babcock machine?

Mr. Converse—No. Anyone who has seen one operated, if he is intelligent and has a good nerve and eye, and will be cautious, can easily learn to operate it.

When the discussions were closed Mr. R. P. Grant, of Clayton, made one of the best addresses of the season his subject being, "The Relation of the farmer to the Watertown Produce Exchange." He said his profession was that of a banker, but he had some side issues, among which was the business of exporting cheese as well as manufacturing it, handling the product of eleven factories and managing six others. There are 114 American cheese factories in the county to-day, and we have the best Produce Exchange in the state, our cheese on selling that of Central New York by a good margin, and we are now making

(1) Very good.—Ed.

(2) As the Aberdeenshire man said to the Editor some 50 years ago: "The dehornin' work is hard to kill. Lay it on a slate steen for a twalmo' and it will be na muckle to appen to then."