

turning the cheese for bandaging, before the rinds are fully formed.

15. Especially in a cold press room, pains should be taken to apply heavy pressure to the cheese before they are left for the night.

16. All cheese should be finished in symmetrical shape and kept in the hoops until the rinds are smooth and the edges free from any projecting "shoulders."

CURING THE CHEESE.

The temperature of the curing room should be kept as nearly regular at 65° degrees as possible. Where the September cheese are kept in the same room with those of October make, the latter should be kept on the warmer shelves. A slight chilling after a cheese has been curing at 65° for two weeks, does little damage; but a steady temperature and constant curing give the best results. Bitter-flavoured cheese are usually the results of chilling in either the making-room, press-room or curing room. If the cause be prevented, the consequence will be unknown.

TO FACTORY MANAGERS.

As this is the last Bulletin of NOTES FOR CHEESE-MAKERS for this season, I desire to counsel the managers of factories to guard against tendencies that appear to menace the permanent success of our cheese industry, viz:—

1. The employment of inexperienced, incompetent men to manage the inside work of the factories.

2. The conscienceless cutting down of the remuneration of the makers, until the able men are leaving the occupation.

3. The inevitably penny-wise and pound-foolish policy of using factory furnishings of poor quality, simply because they happen to be a little lower in price.

So much additional trouble, loss, worry and disappointment result from the putting of men without aptitude or experience in charge of large factories that I strongly urge the proprietors to exercise the utmost care and caution, and invariably to inform themselves as to the fitness of an applicant by enquiry from a reliable expert or cheese buyer. No factory should incur needless risk of a loss of reputation, of patronage, of prestige, of price or of profit.

Cheese-makers may obtain copies of this Bulletin free, in English and French, by application to the Dairy Commissioner, Central Experimental Farm, Ottawa.

The Horse.

HORSES CANNOT LIVE ON FREE LUNCH.

TEACHING A WALK; HEAVY FEEDING.

"Teach the big horses to walk. Teach them while they are colts. If you take them out for an hour's exercise, don't let them trot a step, however good they may feel, until they have spent at least half their exercise time in walking. This will induce a rapid walk, which will in time become a habit. It is easy to get a colt to trot after he has been walking rapidly for half an hour, but exceedingly difficult to get him to walk rapidly if he is tired of trotting," said a city team-

ster to me recently in reply to my question whether he bought fast walkers or taught them the trait.

"We have to teach it to them. Green horses from the country don't know how to walk. I can get more out of horses in my business if they keep up a sharp walk all day than if they are slow walkers breaking into a little jog occasionally. My men are taught to hold them in and keep urging them until they understand that we want a rapid and continuous walk. The horse that has learned this lesson will start away from the stable in the morning at a good pace and not get out of breath all day. My horses last longer at a walk than at a trot or change of pace. It does not knock them out to walk as it does to trot."

"Is there no choice in buying horses? If you should accept any horse offered you, would you not be in danger of getting an animal that would never learn to walk rapidly?"

"Of course a man has to use sense about buying horses as well as everything else, and there is just as much difference in the intelligence of horses as of men. A lunkhead can never be got to walk satisfactorily. I couldn't afford to owe one. Notice the difference in men about walking. Business men and thinkers walk rapidly; laborers always walk slowly."

"What do you feed your horses to keep them so round, fat and hard? I inquired. He smiled proudly as he walked from one stall to another and brought his heavy hand down upon the plump flanks of his favorites.

"They get just one thing at every meal, except for Saturday's supper, and it consists of the best Timothy hay and all the oats each will eat. Here's a 1,600 pounder that eats his 30 quarts of oats every day. Get off their feed? Bless your heart, they have too much work for that. Why, these horses work from 12 to 16 hours, and night hours besides, sometimes doing work for 20 hours out of 24. Their appearance doesn't indicate that they are very hard workers, does it now?"

"What is the variation you give them Saturday night?"

"Well, these 12 big fellows have 40 pounds of good hay, 40 pounds of bran and the same weight of middlings divided up among them. This makes a soft, cooling and nutritious mash which regulates them internally and keeps them in good order through the following week. (1) I never feed it at any other time except Saturday night, because it is slightly physic-kick and weakening. The horses are not taken out on Sunday, and begin their regular oat ration on Sunday morning so that they are ready for their hard work again on Monday. The bran and middlings are not put upon wet hay in winter, as it might freeze in their mangers."

"What has made you such a firm believer in heavy feeding?"

"Well, I will tell you all about it. I became convinced three years ago that there was no money made in starving horses. I see horses every day that are worth \$150, but wouldn't bring \$50 if put up at auction. Their bones stick out and they can scarcely draw a cart. Horses can't live on free lunch as I did for 20 years."

"How did you make it go?"

"I didn't make it go any better than the rest of the poor drunkards. I got so reduced that the shoes on my feet were taken to the pawn shop, and the

(1) This was exactly the plan in our stables in England—14 horses including hunters, &c., and for 11 years we never had to consult.—Ed.

looking-glass was gone from the wall. I stopped drinking when refused a bucket of coal because my credit was also gone. Now, I have not tasted the stuff for over three years. I own numerous horses, among them a better one that is in the stable here, and harnesses and carts for all, besides having money at interest. Besides all this I have a happy home, and never do a hard day's work, and never shall."

HOLLISTER SAGE.

"LOST ON THE ROAD!"

Lost and never regained—horse-flesh, labor, patience and time. Those who are skilled in such matters can figure up the cash value of these things. You have lost all of them before now—they are sunk in the ruts, crushed on the bumps and lost in the dust and sand of a pretty fair road that goes at Merchantville, as most roads go, and yet we are told of it: "This load was easily hauled from Philadelphia over as smooth Telford road, and though the team has been doubled to overcome the resistance of the dirt road on which it now stands, it has been found necessary to cast off part of the load before proceeding farther. This is a frequent occurrence in this vicinity, and in other parts of the State." Doesn't that sound natural to you? If you could only measure your load by the best piece of road between your farm and the market, you could do something, but the measure must be made by the poorest piece every time. This is the story told about it: "Scene on the Camden and Burlington turnpike, showing farm teams on their way to Camden market with heavy loads of fruits and garden truck. A scene of every day occurrence. Traffic about 500 loads per day. When the first team was stopped no other team was in sight, and before the camera was adjusted (within a few minutes) there were nine in line. This enormous traffic has been attracted by the hard, smooth and permanent surface of the improved road."

A smooth road, you see, attracts traffic, saves horseflesh and time. A good illustration of this is thus given by Hon. Edward Burrough, President of the New Jersey Board of Agriculture. He says: "Before the building of the New Jersey turnpikes, 25 baskets of potatoes were considered a fair load from the farm I now occupy, to market. After the turnpike was built, 50 to 60 baskets were considered no more of a load than were the 25 a few years previous. And now, since the stone road has been built, our load is 85 or 105 baskets and during the past winter our team has carted over 90 loads of manure from Philadelphia, several of which I weighed and found 6,860 and 7,300 pounds clear of the wagon, which weighed alone 2,200 pounds, a combined weight of about 4½ tons. Many of these loads were drawn from the city to the point of leaving the stone road with only two horses, and the result has been the saving of over \$100 in my manure bill."

Worth saving—Eh! It would help out the bank account pretty well just now. Everybody knows a good road is better than a bad one. Grant it and then tell us why, if such knowledge is so general, you folks keep on paying your \$100 tribute to bad roads? "We pause for a reply?"

R. N. Yorker.

The Grazier and Breeder.

SOME "PLAIN ENGLISH"

ABOUT FEEDING VALUES

Inclosed is a tag containing an analysis of 'cream gluten meal.' In "plain English," what is its actual feeding value at present prices, assuming that the analysis is correct?

CREAM GLUTEN MEAL.

ANALYSIS, MADE BY

The Agricultural Experiment Station of New Hampshire.

Water	6.52
Crude fat	18.11
Crude fiber	1.20
Crude protein	39.13
Nitrogen-free extract	34.28
Ash76

Total per cent.... 100.00

DIGESTIBLE NUTRIMENT.

Albuminoids	33.26
Non-albuminoids	67.11

Nutritive ratio ... 1:2

East Union, N. Y. INQUIRER.

"Plain" English seems to be about the hardest English to write; much of it seems to be explain—that is, it probably was plain once, but is now a little mixed with science so that it needs explaining. This tag shows that the New Hampshire Experiment Station analyzed a sample of the cream gluten meal, and found the contents as shown. The contents of each bag have not been analyzed, but that statement is a very fair one for an average sample of the feed.

THERE are three chief compounds in food that go to sustain life. The "crude fat" is pure fat like butter or oil. "Crude fiber" is the portion of the food found in the form of woody fiber—hard and indigestible. "Crude protein" is the portion of the food that goes to make muscle in the body. "Nitrogen-free extract," frequently called "carbohydrates," is composed of starch, sugar, etc.—bodies that may, by digestion and assimilation, be used to make fat in the body. "Ash" is what is left after the whole food is thoroughly burned. The fats, of course, are more valuable than the "carbohydrates," just as butter is more digestible than crackers. Both are valued for making fat. The "protein" is the muscle-forming food, and must be present in any ration. In one sense these terms are almost analogous to "nitrogen," "potash" and "phosphoric acid" in fertilizers. Each has a special place or duty, and all must be present in a fertilizer to grow a crop. "Digestible nutriment" means the parts of these foods that may be digested by the animal on the same principle that fertilizer dealers claim that so much of their phosphoric acid is soluble in water.

In the above tag, the manufacturers confuse many buyers by changing the names. "Protein" is a word used to describe a number of different substances called "albuminoids," because they all contain more or less albumen, a substance like the white of an egg. "Non-albuminoids" are the parts of