

prepared by adding kainit and superphosphate in proper proportion to the nightsoil.

WHEAT AS COW-FOOD.—All sorts of sensible answers are daily making their appearance in the columns of our agricultural exchanges. Practice, it seems, is re-instated in its original position as the main stay of agriculture, and theory is relegated to its proper post, that of explainer of successful practice. For instance; here is a question put to the editor of one of the leading farm-papers of the States:

WHEAT AS COW-FEED.

Mr. Hebenstreet of Macon Co., Ill., asks in another column, whether he can afford to feed 53-cent wheat to his cows in place of bran at \$16 and shorts at \$19.

"At the figures the chemists give us, wheat does not appear to have as high a feeding value as either bran or shorts, but it does sometimes happen that a cow can beat a chemist in extracting nutriment from food."

In no case is the observation that "a cow can beat a chemist in extracting nutriment from food" truer than in the case of roots. The chemist can find but the merest trifle of difference between the nutriment contained in the swede grown in the county of Kent and the same root grown in the county of Aberdeen; and, yet, the Kent swede, with straw-chaff, will barely keep sheep going, while the Aberdeenshire swede, with straw, will fatten a heavy bullock.

THE ST-HYACINTHE DAIRY-SCHOOL.—M. Emile Castel, who was good enough to pay us a visit this month, tells us that the attendance this spring at the valuable institution of which he is the secretary, far exceeded expectation. The publication of the 11th Report of the Dairymen's Association, in French, took place last week, and, this week we hope the English translation will make its appearance. The discussions in the Report will be found to be full of interest to both patrons and makers, and the renowned confidence expressed in the *Babcock-test* will we trust cause its universal application in, at least, all cases where doubts are entertained of the purity of the milk delivered either at the cheese-ry or the creamery.

FOOD AND FAT IN MILK.—Dr. Hy. Nathorst is a celebrated Swedish scientist, his opinion evidently is the same as the opinion of every English farmer we ever met, and agrees perfectly with our own by no means limited experience:

The varying fat content in the milk from different cows, Dr. Nathorst says, is partly due to the feed—only inexperienced persons will say anything to the contrary—and partly to the breed, but it varies greatly within the same breed and is therefore often an individual quality. Watery foods and such as are poor in protein make thin milk, while short nutritious pasture makes milk rich in fat. (1)

COOKED FOOD.—As to scalding feed opinions differ, but, if anything, the weight of opinion is that it does not pay.

MUCH TO LEARN.—Farming is very largely conducted by rule of thumb. Experienced, thoughtful, labouring men are very often as well acquainted with the management of

the land on which they have worked for a number of years as the men who employ them, and their knowledge is frequently of considerable use to their employers. Old farmers, like old labourers, are able to discriminate with wonderful accuracy, and their advice is not to be rejected offhand. The fact is, that experience and observation have taught them during the course of years to a large extent what science, which is based upon observation, teaches the student. Ex.

COTTON-SEED.—Mr. Horne, though he writes M. D. and V. S. after his name, is not likely to convince many people that "cotton-seed-meal in no possible form is fit for a well-bred cow." The universal, so to speak, practice of farmers, both here and in Britain, of giving from 2½ lbs. to 4 lbs. of this meal to all kinds of milch-cows is against him.

But, at the same time it must not be forgotten that the British farmer gives his cows laxative food of some kind with the cotton-cake: turnips or mangels in winter; grass and green-meat, such as rye, vetches, &c., in summer. Besides; cows, in most part of England get mixed cake: half linseed, half cotton-seed-cake, and the laxative power of the one counteracts the constipating effect of the other. No one should give cotton-seed-cake or meal to calves on milk: that is clear enough. But why use cotton-seed at all, when we can grow linseed to perfection? That has always puzzled us!

COTTON SEED

ED. HOARD'S DAIRYMAN:—I have many times given my views about cotton seed, in any form, as food for cows, especially breeding animals. When practising my profession in Mobile, Alabama, I had all the proof positive I needed as to the disastrous results of feeding cotton seed to cows, above all to the high bred animals. The pinkey-woods cow seemed to be much freer than well-bred animals from the bad effects of feeding cotton hulls, or cotton seed in any form.

I gave a good deal of offence to some of the high-minded Southern Jersey breeders from the fact I dared to be professionally honest, and combat the strong and deep settled prejudice in favor of feeding cotton seed to bovines. No one of intelligence doubts the strong feeding quality of cotton seed meal, none doubts for a moment its nutrient qualities. Still, I again affirm, cotton seed in no possible form is fit for a well-bred cow, above all, a finely bred Jersey cow.

WM. HORNE, M. D. V. S.

PERMANENT PASTURE

The following letter, from "Hoards Dairymen," is wisely composed, but we take exception, not to the quantity of grass sown, but their great variety. Some of them are sure to die out very quickly, and those the most costly. Double the quantity of orchard-grass, add five pounds of timothy, two pounds of red-clover, and one pound of white clover, as there is no cow-grass to be had, and we think the tall meadow, and the foul-meadow grasses might be left out. Two or three pounds of lucerne would do no harm.

HANS BUSCHBAUER AND HIS GRASSES.

Last winter we gave our readers an illustration of the beautiful farm home of ex-Governor Francis A. Hoffmann, of this county, better known to his thousands of readers as "Hans Busch-

bauer," the agricultural editor of the *Germania*, the most widely circulated German newspaper of the Northwest. In a recent letter to Prof. A. Henry, Director of the Wis. Experiment Station, he makes the following interesting statement:

Let me request you most earnestly to take into consideration the propriety of making, the coming season, an experiment in this direction. In case you think half as well of me as I am vain enough to believe you do, you will this season devote about one acre of good soil of fair quality, neither too wet nor too dry, to grass culture. Let me tell you in which way I have succeeded in planting a pasture, one acre of which suffices to furnish succulent and sufficient food to a cow throughout the pasturing season.

Early in the spring I sow oats, not more than six pecks to the acre. After the oats have been sown, I sow my grass seed cross-wise. A very light harrow follows. If the condition of the soil permits it, the roller follows the harrow.

Here is my mixture of grass seeds for pasturage on soils that will produce a good crop of barley or wheat: Six pounds of perennial ryegrass, four pounds of tall meadow oat grass, five pounds orchard grass, three pounds of red top, three pounds tall fescue grass, three pounds foul meadow, six pounds meadow fescue, two pounds meadow foxtail, two pounds alsike clover, in all, thirty-four pounds to the acre.

Sulzer, of La Crosse, can furnish the seed. I always test grass seed. Alsike will not only flourish on wet soil, but even on ground occasionally submerged. I have raised it on a marshy piece of land temporarily under water. Could not you, and if only as a particular favor to "Old Hans," spare one acre for an experiment like this? I have the interest of the farming community in mind and nothing more.—*Hoard*.

LOWER PROVINCES HARVEST PROSPECTS.—We regret to hear, on all sides, that the excessively wet weather we have had all over the country has been highly detrimental to the crops. The heavy storms of the 3rd and 4th of June must have flooded the low-lands, and where potatoes had been planted, we fear they must have rotted. (1) The hay-crop must be large, that is one comfort, but land intended for roots or silage-maize will be unworkable for some time. A strange contrast between our abundant moisture and the long-continued drought in England, where for 71 days, up to the 17th May, not a drop of rain fell. (2) A. C. P. R. official who has returned from a trip to the Lower Provinces says the outlook for the harvest is very gloomy. The weather has been extraordinarily backward. Heavy rains have swollen the rivers, and these have flooded the low lying lands. In some parts seeding has not commenced yet. In New Brunswick the only blossoms he saw were those of the wild cherry tree. But see New Brunswick in the fall and you at once call it the garden of Canada. Miles of orchards stretch on every hand. It is like a bit of the south of England transplanted to this new world. For the unlovely fence, you have the softness and beauty of hawthorn hedges. On my way up I saw seeding going on as near Montreal as Saint-Constant. (3)

(1) And, we regret to say, we were right.

Ed.

(2) And very little fell then—only ½ of an inch.—Ed.

(3) On June 3rd.—Ed.

OATS AND PEASE.—A correspondent of the R. New-Yorker wants to know what to do with a crop of pease and oats, and the editor of that paper asks for advice on the subject.

They do not seem to grow pease much in the States, and they seem to think curing the crop a slow and laborious process; but if pease are sown early, as they ought to be, cut with the "pea-harvester", and put up in small bundles or "cocks", they soon cure. Unfortunately, people not accustomed to grow pease get in a hurry, and carry them to the barn before they are thoroughly dry; consequently, they heat, turn mouldy, and threshing them is a filthy job.

We recommend the pease and oats to be ensiled when the pease are in full bloom. The Minnesota Experiment station speaks very highly of pea silage, and the double crop should be better still. Our preference for fodder-crops is one bushel of pease, one bushel of tares, and two bushels of oats. If these are sown early, they should be fit to cut by the 12th. July; the land should then be broken up, thoroughly cultivated with the grubber harrow, &c., and 5 lbs. or 6 lbs. of rape sown to the acre; this will be ready for the sheep by October 1st, and each acre should, if the piece be in good order, afford good keep for 6 sheep for a month. A moderate dose of bone-meal will help the rape amazingly.

POTATOES.—Several valuable hints are given in the Reports of the Experiment Stations of the U. S. For instance:

Early varieties planted late are more subject to disease. Large seed is better than small, and repays the additional cost. Uncut seed is better than an equal weight of cut seed. The value of manure of different kinds depends upon the season. A heavy dressing of farmyard manure applied in the spring, is barely remunerative on the first year's results. Chemical manures should contain nitrogen, potash, and phosphoric acid in proper proportions. Imperfectly compounded chemical fertilisers do not pay. Soot and kiln dust are barely remunerative in a dry season. Farmyard manures favor disease more than chemical fertilisers.

LOSS OF MANURE CONSTITUENTS.—In the gas from the interior of a well-moistened heap of natural manure not the smallest quantity of ammonia was observed.

Moistening manure regularly has the effect not only of preventing the loss of ammonia, but also of promoting fermentation.—W. H. B.

TOMATOES.—An experiment on the "Single-stem training" of tomatoes showed that, as we have always held, a great waste of space is commonly made in planting tomatoes. If the single-stem training is practised, 15 inches in the row and 24 inches between the rows will be amply sufficient. The season is so backward that we fear our own tomato-plants will not be in the beds till June 10th; but we still hope to gather ripe fruit before August 10th.

Single stem training (Rep. Ex. Stations).—"A number of *Ignotum* plants were set 1 foot apart in rows, and each plant was tied up to a perpendicular cord, but one stem or stalk being allowed to grow in each case." The plants gave decidedly larger yields per square foot of land than untrained plants and the crop was earlier. These results agree with those of the previous year.

(1) The spring-grass this year, will, we fear, lower the condition of cows all through the summer. Too much rain.—Ed.