

Stock and Dairy.

Roots for Stock Feeding.

A Mr. Lane, of Cornwall, Vt., writes as follows to the *New York Tribune* on the above important subject, one which is very much neglected throughout this country:—

From the first of my farming I have raised roots of some kind to feed stock during winter. Twenty-five years ago, when labor was much cheaper than now, I raised carrots. These I consider valuable to feed to young, growing stock; but the cost of raising them at the present price of labor is generally more than their feeding value. It costs from two to three times as much to raise a ton of carrots as the same amount of the large-growing varieties of sugar-beets or mangel-wurzels. To raise roots and have them cost less than their feeding value, the labor should be done with the horse cultivator and hoe, avoiding thumb-and-finger work. The profit or loss on a crop of roots generally depends upon how the labor is performed, whether principally by hand or by the aid of machinery. The question, "Is it profitable to raise roots to feed during the season that the stock is kept on dry fodder?" is often asked by those who have but little experience in their culture, or are about to begin raising them. This can be answered two ways, and answered correctly. There are a great many farmers who, every year, raise root crops for feeding purposes, from which they realize a large profit. Then, on the other side, many attempt to raise these crops, and from various reasons, generally through their own neglect, they get small and poor crops, which costs them more than the crop is worth. The cultivation of field sugar beets for feeding purposes is certainly not sufficiently appreciated by most farmers. I have experimented with the various kinds of carrots, turnips, beets and wurzels, and for a few years past have raised as the main crop, and with perfect satisfaction, the American Improved Imperial sugar beet.

The soil most proper for field beets is a rich loam of a clayey rather than sandy character. Light sand land is better for turnips. I sow the first suitable weather after the soil is in fine condition to be worked. I think early sowing is essential in order to obtain the best results. Sow in drills 30 inches apart with a machine, if you have one; if not, plant or dribble in the seed in rows 30 inches by 18. It takes four pounds of seed, if sowed, and about one-half as much if planted. When the beets have been sowed in drills they should be bunched out with the hoe as soon after the second pair of leaves appear, and if there is no danger from worms destroying the plants, as they are not wanted for transplanting, thin the bunches to one plant at this time. All the remaining labor can be done with the cultivator and hoe, and should be repeated sufficiently often to keep the soil loose and free from weeds. From my farm book I copy the following items as the cost of cultivating one acre of beets:—Plowing the land, \$3; drawing manure, \$4; spreading manure and harrowing, \$3; ridging land and sowing seed, \$4.50; cultivating once, bunching and thinning plants, \$7.50; cultivating five times, \$5; hoeing twice, \$6; total, \$33, as the cost of cultivating one acre which yielded 1,050 bushels. The cost in labor was a trifle over 3 cents per bushel. Add to this the use of the land, manure, and seed, and the whole cost is between five and six cents per bushel, and worth to any farmer from 15 cents to 25 cents per bushel, depending on the location, the kind of stock fed to, and manner of feeding. Every observing feeder knows that any succulent food in the shape of roots fed to stock in winter, in connection with this dry food, increases the appetite and promotes health, and thereby improves their condition. The various profitable uses to which all kinds of roots can be applied should induce farmers to grow them more extensively than they do at present.

S. T. Wood writes to the *American Farmer*:—"My business is dairying butter and cheese. Commenced with Durham grades from a good milking stock, and made a mistake in crossing to an Ayrshire stock. I lost size, consequently beef qualities; the Ayrshire is hard to milk, but gives a good quantity; is very hardy and a mild article. I am now getting back to the Durham, and I use a full-bred Shorthorn. I want milk and beef qualities combined. The experiment of crossing the Ayrshires has not proved very successful.

Dairy Cattle.

A writer in the *Mark Lane Express*, discussing the most profitable stock for dairy purposes, on a farm where milk and its production form a part of the business relied on for the profit, says:—

"For merely a dairy purpose, it matters little what breed or mixture of breeds is patronized, providing the animals, under the influence of liberal treatment, can be forced to milk largely; but as in the system now advocated a much more important question is involved, the milking property can scarcely be allowed to take other than a secondary position. Most practical men who understand this subject, and who have for a series of years tested it by actual experiment, are agreed that a cross-breed cow combines the two much-desired and valuable qualities in a greater degree than can possibly be attained by any pure animal of the standard breeds. As an example of the deep milker, the Dutch cow takes a leading, if not first, position, giving milk, under the influence of good feeding, in an extraordinary quantity, and continuing it far into the season. Her milking capacity is so enormous, that she recommends herself in an especial manner to those who supply milk in large quantity to public institutions; with this single feature her usefulness begins and ends, as she is a hard feeder, consuming food in excessive quantity, and scarcely at any age compensating her owner for his trouble and outlay in feeding her. The exactly opposite quality is found in the Shorthorn, the tendency to lay on flesh being in the superlative degree; while the milking property, unless in some exceptional strains of blood, is not to be depended on, the cow of this breed, however freely she may milk for a short time after calving, being extremely apt to run dry long before the expiration of the season. Whatever the alloy, the Shorthorn must now be taken as the standard breed of the Kingdom, its blood being largely infused into every herd from which a profit is expected. Where dairy business and the breeding as well as the feeding of stock are all carried on together, a three-quartered Shorthorn fulfils as nearly as possible the whole of the conditions necessary to success in each department, as any slight deficiency in one qualification is more than counterbalanced by the extraordinary aptitude to reach early maturity, which is evinced by her offspring. The breed used to somewhat check the running to flesh, to assist the milking capacity, and retain it further into the season, may be found nearly in every district, often under no distinctive name but that of the common cattle of the country, and although somewhat coarse and strong of bone, will not, on that account prove the less valuable, as their descendants will retain a portion of the hardness of constitution and free milking quality, for which features they were originally selected, long after the unmistakable impress of the Shorthorn sire has been indelibly stamped on the outline and general character."

Delicacy of Constitution in Animals.

A correspondent of the *Prairie Farmer* says: As a rule, it is the interest of farmers to raise a breed of pigs that will mature rapidly. Breeds have been hurried up till a pig of eight or ten months old will weigh between 200 and 300 pounds. This of course has its advantages, but there are many serious evils to counterbalance them, and these are a prime cause of the present trouble.

Hogs now lack bone to a remarkable degree. They are also lacking in hardness of constitution, which is apt to make them victims to numerous obscure diseases about which little is known, but which are now classed under one common head—that of hog cholera.

One prime cause of these diseases and delicacy of constitution is the extreme early age at which pigs are allowed to couple and breed. If unrestrained they will gratify this instinct at six weeks of age, or even less. Nearly all our choice breeds are the offspring of parents, in almost every case, on both sides, of less than one year old. They come from pigs, not hogs, and this process has gone on, and bids fair to go on, till no more hogs will be left in the West, if this is not already the case.

A male animal ought not to be used for breeding if under one year old. He ought to be selected for size, bone and vigor of constitution, and ought to serve a limited number of sows, none of whom ought to be less than a year old—still better if they are older. The boar ought to be kept up,

and on no account should be allowed unrestrained access to the younger females of the herd.

It is to be hoped that some of your observing readers will act on these hints, and give the results in your paper. When a sire, possessing the proper and necessary qualities for one, is found, he ought to be kept at least five years for this special purpose, and if the sows let to him are over three years of age, their offspring will be all the better, in every respect.

Clover—Its Value for Stock Feeding.

The growing of clover is an essential part of good farming. Clover, whatever its variety, seems to enrich the soil, and every variety has its own good properties. Whether it be the common red clover, the Alsike or Crimson, or the Dutch White Clover, each supplies to our live stock a large quantity of nutritious food. As a sheep pasture there is no grass equal to the white clover, though it is better pasture if mixed with a good selection of grasses. In every pasture there should be a mixture of good grasses. In the food of all animals it is well to have a variety, and a variety we have by a mixture of grasses. For soiling, red clover is almost indispensable, its two cuttings coming in very opportunely when needed, and affording a healthy nourishing fodder. Some people think that as hay it is inferior timothy or rye grass. We always considered that when clover is sown with those grasses and saved with them, the hay is better than if it were only grass. A writer on this subject in the *Ohio Farmer* says:—

We do not overestimate the value when we say that, for animal food, the farm does not produce anything which equals good clover. Every animal on the farm, from the horse on down, will winter and thrive on it better than on an equal value of any other kind of food. I do not refer to the so-called hay which is often fed or sold as clover hay, but to clover properly cut and cured.

We carry a lot of horses through the winter better on a given weight of clover hay, than the same animals can be brought through on the same weight of timothy hay and an additional allowance of four ears of corn per day; and the manure made from the former would be worth one-third more than that made from the latter. The cows will give more milk and make more butter on good clover hay than if fed on the same value of timothy hay and an addition of two quarts of corn meal per day. The colts, calves and sheep will thrive and do well on clover hay when they would not hold their own on timothy hay. I want nothing better to carry a lot of hogs through a winter than clover hay. Your turkeys, chickens and ducks will gather up the last leaf and head of a basket of the refuse from the barn floor, if it be thrown them on a cold winter's day.

In comparing the difference in cost in feeding clover or timothy hay, we will estimate the timothy hay worth \$20 per ton, and clover hay as worth one-fourth less, or \$15 per ton. Messrs. Laws & Gilbert give it, timothy hay, for manure, as worth one-third of its cost, or \$6 per ton, and clover at two-thirds of its cost, \$10 per ton. Allowing a herd of 20 cows to consume one ton per head, if fed on timothy, would cost \$400, and if fed on clover, would cost \$300 leaving a balance in favor of clover of \$100.

Value of timothy as manure... $\frac{1}{3}$ of \$400—\$133.33
" " clover " $\frac{2}{3}$ of 300—200.00

Leaving bal. in favor of clover as manure. \$66.67

This would leave a total difference in favor of feeding 20 tons of clover hay, of \$166.67. But as we before stated, the clover hay would exceed the timothy by two quarts of corn per day—225 bush. for six months; at 50 cts. per bush., or \$112.50, which, added to the above, gives us \$279.17 as a grand total in favor of clover.

The conclusion would be that the time is not far distant when the price of clover hay will rival, as it should, that of timothy hay, and the farmers should feed their clover hay in preference to selling it, while they should seldom, if ever, feed their timothy hay.

Yonatt says he thinks the Devon red are the best suited for all purposes in the west of England. All that is necessary to keep them up in size and proof, and of a good growth, is to change the bull every two years. This is very important, although an overlooked and unappreciated principle of breeding, even where the stock is most select. No bull should be longer used by the same grazier, or some degree of deterioration will ensue.

The Ayrshire cow is out of this country for its lent dairy purposes. Their origin, they Scotch and English shires are generally mottled, not roan, but often present The head is small and narrow at the generally mild and lively. The hind quarters. But broad across. The joints are medium size, and are always very developed.

On the whole, but want some to fatten which is supposed to be the basis of the Ayr, a county of the Frith of Cl Scotland, and as Carrick, Cum as the lordship production of the dairy breed of are naturally during severe condition with the They have been of milk in the op

It is in the opinion of bred Shorthorn will produce a earlier and attain money than a with feeding for or three years ally seen in the

In this cross comes ordinarily perhaps, little of the offspring selection of the

The Ayrshire other breeds that yielding a great

Prof. Wagn of their succ severe whippi lating the p crushing the p prompted. N and there is ability, judg man, as the repelling the be necessary always be a should be tak cite the will proper use upon the se affectionate a in training A reproof g of the chil excited the o is a vital pri management only at the r many horses spoiled by w made vicious while standi

Mr. Carpe endeavoring answer for difficult task highest pro tions of par propensity ers, both as