

Stock.

"Keeping up the Flow of Milk."

BY PROF. MANLY MILES, LANSING, MICH.

In the June number of this paper Mr. L. B. Arnold has argued in a forcible manner the importance of securing in the dairy cow a full flow of milk throughout the season by a liberal and judicious system of feeding.

His argument, however, has reference to the immediate and direct profits of the season, and does not include the influence of this system of management upon the future usefulness of the cow in the production of milk and as a breeder, which are matters of quite as much importance.

The abundant secretion of milk is the result of an artificial habit of the system that has been developed by the conditions to which the animal has been subjected in the state of domestication.

Wild cattle are not good milkers, as the habit of milk secretion is limited to the wants of their offspring.

In our domestic breeds, when the practice prevails of allowing the calf to run with its dam, the same habit of the system is developed, and a moderate degree of activity in the milk secreting function becomes an established characteristic of the breed.

If dairy cows are not provided with a sufficient supply of feed to keep up the maximum secretion of milk through the season, and the udder is not completely relieved of its burden at regular intervals, a habit of "drying off" early will be formed and fixed as a constitutional characteristic of the animal, and transmitted to its offspring as an hereditary peculiarity of the family.

When such a habit is fully established as a family character, the inherited tendency to a shrinkage of the milk, after a given period, will prevail, notwithstanding an attempt may be made to counteract it by liberal feeding, the surplus of food, over what may be required for the repair of waste tissues, being in such cases used in the formation of fat or some other purposes than the secretion of milk. The loss involved in the shrinkage of milk from a scanty supply of feed in the middle of the season, if frequently repeated, will not therefore be limited to the immediate results of the year, but extends also through a constitutional habit of the system to subsequent seasons and future generations.

The inheritance of habits has an important influence upon the value of all farm stock; but there is perhaps no class of animals in which this law of the organization is so readily recognized as it is in the dairy cow.

An inherited aptitude to secrete milk in abundance for an extended period can only be secured by keeping up the activity of the functions in breeding stock as a habit of the system, and the best results from full feeding cannot otherwise be obtained.

Stock Breeding.

In estimating the value of animals, the return obtained in the form of beef, milk, butter, or cheese, for food consumed, is of the first importance. Success in the breeding of live stock, as in all other departments of farm husbandry, must be measured by the actual value of the products, and the relative profits that may be derived from them. Live stock must be regarded as machines for converting grass, grain and roots into animal products, and only those machines that do the work economically and profitably are worthy of breeding or keeping. The cotton manufacturer could not sustain himself a single year in the use of spindles and looms more wasteful in the raw material than those employed by his competitors. The levelling influences of market values soon sifts out those

who employ inferior machinery, defective tools or incompetent assistants. So with the stock breeder, or cattle feeder; he will be distanced in the race for success who rears or feeds unprofitable beef machines, or whose dairy is composed of inferior milkers.

In stock raising, pedigree breeding is a business for the few, requiring special conditions to render success even probable, but every one who breeds, whatever the class of animals he selects, should aim at quality, by which is to be understood the qualification to mature at the earliest possible period, and to accumulate the maximum weight from a given quantity of food. The animal which converts the largest amount of food into animal products of the best quality, with the least possible waste of material, is the most valuable. Animals that eat but little are not the most profitable. A certain amount of food is necessary to furnish the required motive power, and to sustain the animal functions, and if the steer is capable of digesting only what is required for this purpose, it would be comparatively worthless, since a profit can only be obtained from the food assimilated in excess of this amount. As a rule, the influence of the male preponderates, consequently whilst careful in the selection of females, neither time, nor a moderate expenditure of money, should be spared in selecting the right sort of bull. If milking stock is required, not only should heifers of promise be selected, but a sire must be sought that comes of a good milking stock, as these qualities are to a great extent hereditary. Animals of the best quality, that are adapted to the conditions of the farm, and the particular purpose demanded by the system of management proposed, will yield profitable returns for the feed consumed, besides furnishing the best means of enriching the soil for the growing of grain.—[From the Cultivator.]

Devon Cattle.

There will be on exhibition at the St. Louis fair and offered for sale, after the awards, two or more herds of Devon cattle, one of which is bred by Gen. L. F. Ross, of Avon, Fulton County, Ill. There is not enough known of this breed of cattle by the majority of farmers. Having a life experience with all breeds of cattle, I am induced to believe that for the majority of the farmers, for town people who keep cows, and for many who breed for beef, they can not be excelled if they can be equaled. The cows are the most even milkers I have ever known. Starting out with a fair quantity they will hold out with little loss for six or eight months (if fed for milk.) Cows are machines for making milk and must have the right kind of food and enough of it if they are to do well. No better milk for general purposes can be had. It is good for butter, good for cheese, and good for table use. If kindly treated no animal is more tractable, but you can raise a quarrel very easy. They will resent abuse at all times. They can be petted equal to any cattle that grow. As work oxen they excel all. The beef is first-class, and can be produced fully as cheap as the Short-horn, but require generally one year more growth. Farmers wanting small herds and superior cattle had better pay some attention to the Devon exhibition at St. Louis. Once started in Devon stock the owner seldom changes for another.—V. P. R., in *Prairie Farmer*.

Sand for Bedding Cattle.

Sand, if not the best, is one of the best articles in use for bedding cattle. It is a good deodorizer, and keeps the stable sweet. As the cattle work it back into the trench under their feet it mixes with the manure, and thus divides it and makes it more suitable for the use of plants. If the distance to haul it is not too far, its very cheapness ought to recommend its use. In barns that have no cellars, where it is used freely, it would absorb a large amount of urine that is now wasted. Soil and muck are dirty things to use in a stable, but sand is clean. Then, too, it is a nice thing to use under hen roosts to receive the droppings, which can be easily raked off and kept in barrels, and in the spring mixed with fine cow manure—one part of the former to two of the latter. This being shovelled over thoroughly two or three times makes a mass of rich manure. A large handful of this in the hill will set corn to growing finely. Flowers, too, grow and blossom far better in a soil that has an admixture of sand. So clayey and peaty soils are benefited by its combination with them, and *vice versa*. When spread on heavy soils in grass it produces more effect than any chemical manure.

Thorough-bred Sheep for Mutton in England.

An English tenant farmer writes as follows on this subject to the *National Live Stock Journal*:

A correspondent complains that the produce of his ewes have not proved hardy when crossed with long-wooled rams. It is an established fact in this country that certain breeds are best adapted for certain districts. This is so thoroughly acknowledged that I can travel for many miles without seeing more than one class of sheep. It fell to my lot, some ten years ago, to shift my quarters about twenty miles further south, and in only that distance have I come into a district where nothing but the Hampshire Downs are kept; for the greater part of three or four counties to the south and east of me these are the only breed. To the west of me, and again to the north-east, one would find another class, which now pass as a district breed, called the Oxfordshire Down. I hope the breeders will forgive me when I say this is entirely a new class, produced by crossing the Cotswold with the Hampshire Down, and occasionally, according to the fancy of the breeder, with a slight mixture of Leicester or Southdown. This breed has been entirely established within the last twenty years; and although I consider them first-class animals, their produce would, when crossed with Merinos or any other breed of long standing, possess no characteristic type nor similarity in my opinion. After this digression, showing that certain kinds of sheep are best suited for certain localities, I will go straight to the point, and strongly recommend your correspondent to try two or three rams of the Hampshire Down breed; if the other cross did not pay, the chances are these will. They possess a wonderfully robust, vigorous constitution, with immense depth and width of fore-quarters, capital necks, are wide across the loins, and especially muscular and good about the thighs, or legs of mutton. I know of no breed so capable of traveling over a barren down for food, when they are to be kept in a store or breeding condition; and none can excel them, in favored localities and with liberal treatment, as mutton producers. I have seen them sold at our local fairs, at ten months, weighing from 75 to 80 lbs. when dressed.

The wool and mutton are classed with Southdowns, as regards quality, but the weight of carcass would be at least 15 lbs. in favor of the Hampshire at twelve months old. I only know the Southdowns as being kept in the fancy parks of our nobility for home consumption. In your March number "L. N. J." advises a trial of the Southdown; he may be right, and as he writes as a person of some experience in your country, I should be wrong to dispute his judgment; I can only say that in this country there is no comparison between the two breeds of Downs, the Hampshires possessing a vast deal stronger constitution, and being capable either of living under rougher treatment or of making a better return in a given time under the most favorable circumstances. I will say no more on the subject, but I hope I shall not annoy any breeders or importers of other breeds.

When I entered on my present occupation, I bought of my predecessor 600 ewes of this breed; but though I flatter myself I have improved them, I do not consider them nearly up to the standard required for exportation, therefore I hope none of your readers will think I am desirous of getting a sale for my own stock. July or August is the usual time for selling these rams, and lambs are used rather more than the older ages; but for exportation I should recommend two-tooths (yearlings). Three of these rams would do as much work as five Cotswolds. I once heard of one of these sheep getting amongst a flock of ewes some days before the owner wished to have them served; he stayed with them only one night, and 100 lambs was the result. I cannot vouch for the accuracy of this statement, but from my knowledge of the sheep I think it may not be very wide of the truth. Three of them would suffice for 400 ewes at any rate. Such sheep in this country might be bought at from \$45 to \$75 each. Possibly I may have already said sufficient to give annoyance in some quarters, so, for the present, I will conclude. I can only say, my opinion respecting sheep is honestly given, hoping it may lead some persons into a profitable way of making mutton where they have hitherto found a difficulty.—[Agricultural Gazette, Eng.]