

The Farm.

Summer Soiling and Pasturage.

Summer soiling in the dairy consists in having an abundance of succulent food for milch cows, supplementary to pasturage during summer and fall, when grass begins to deteriorate and fall off in quantity.

It has been abundantly proved, from all experience, that cows, to make the best returns, must not be allowed to shrink very much in their yield of milk during August and September; for the milking habit being checked at this season, and the yield diminished to a small quantity, it cannot be brought back again to a full flow during the remainder of the season, though grass may be plentiful and fresh. In ordinary seasons, feed in pastures begins to dry up and becomes brown and woody toward the last of July.

Among summer soiling plants corn ranks first in importance. It is adapted to the soil and climate over an extensive area. It is easily grown, produces an immense crop of fodder under good cultivation, is eaten with avidity by dairy stock and makes good milk. Everything considered, there is no crop that can be grown so cheaply and is so well adapted to milch cows in helping out deficiency of pasturage as corn. In growing the crop the land should be rich or well manured, and put into good tilth. About the middle of June is the time usually employed for putting in the seed, of which the sweet or sugar varieties are esteemed the best for a soiling crop.

On fertile soil, with good culture, it yields from 25 to 35 tons of green fodder per acre. The seed should be sown in drills, the rows being about 2½ feet apart, so as to admit of a cultivator or horse hoe being run between the rows when required. A favorite way with some is to make double rows, making the drills about six inches apart, and the seed in the drills an inch apart, and leaving a space of 2½ feet between the double rows for cultivation with horse-hoe and the admission of sun and air. Corn fodder, when grown very thickly, so as to exclude the sun, does not mature sufficiently, and is less nutritious than planted in rows, as described, and in order to get the greatest benefit from the sun's light, the rows should be run north and south. On good, rich land, when properly cultivated, one acre of fodder corn will be sufficient for eight cows as a supplementary feed to pasturage and the bridging over the dry season. A portion of the crop should be put in at the earliest time practicable, while other portions may be sown later, so as to have fresh and succulent food in succession. It is in its best state for feeding when ears have formed on some of the stalks and are in a milky state.

As fodder corn, when ready to cut, contains a large percentage of moisture, the quantity required for a day's feeding should be cut at least 12 hours in advance of feeding, so as to have time to wilt and get rid of some of its surplus moisture.

No farmer who desires a good yield of milk should neglect to grow an ample supply of fodder-corn, even though he may find it necessary to feed additional rations of bran, &c., during droughts or the falling off of the usual supply of pasturage.—[Rural New Yorker.]

Navy Beans.

The good policy of a farmer growing a variety of crops is repeatedly spoken of, but seldom practiced. Wheat is almost the only crop prized. There may be partial failures; the crop may be light and unprofitable, or the price may be low, still the same system prevails year after year, wheat, wheat. There can be no doubt that a change of crop with a corresponding change of tillage, even for a season, serves to refresh the land. A change to a drilled crop such as beans would doubtless be found beneficial; the growing of them in Canada, however, is little known save in the more western counties of the peninsula.

The best time to plant beans, as a general rule, is in June; if after a gentle rain, so much the better. The growth, if thus sown, will be rapid and they will get ahead of the weeds, from the warmth and moisture of the soil. Sow from two to three pecks to the acre, in drills about two feet apart. If instead of Navy beans you plant a larger variety, such as the Marrowfat, the space should be two and a half feet. They will need to be cultivated once, or, if the soil be compact or weedy, twice. As beans partially shade and smother the growing weeds, cultivating them once or twice will be

found sufficient, especially if the land has been fall plowed and cultivated before the cropping. Beans should be harvested before they are quite ripe, or they might shell and much of them be lost. Early saving them increases their market value, as they will appear better and brighter. Pull them and cure them in the shade before the pods have turned yellow, and if carefully beaten out of the pod and well cleaned they will bring a good paying price. We have seen from fifty to eighty per cent. difference in the price of two samples of beans, and the difference entirely owing to the saving and cleaning. The produce of the crop varies also very much, as much as other farm crops; the yield is from twelve to twenty bushels per acre. The market report in Detroit for this month is: Bean market firm at \$3.30 to \$3.40 for hand picked, and \$2.50 to \$2.80 for unpicked. This crop would be found valuable as a substitute where corn seed had failed.

Value of Hay at Different Stages.

There is no other class of feed used upon the farm, for stock, so little understood in general as to its real value, as hay. By this we mean the absence of any understanding and agreement among farmers as to the exact, or anything approaching the exact, difference in value between early and late cut hay. In the minds of those who have made thorough tests, we think there remains no question as to the comparative value. But most farmers have been raised to believe that the time to cut timothy is when it is ripe—not when its seed is fully ripened and the stalk dry, but when it is fully matured. Taking timothy seed as an example, we admit that the seed in itself is very insignificant in bulk and weight, but nevertheless it contains, when fully matured, a large proportion of all the nutriment which comes in through the root. This is the case with oats, wheat, and all plants that bear seed, no matter how small the seeds are.

If we were to try the experiment of cutting and making fodder of our oats and wheat while yet in the bloom, it would be found that they would make very good winter feed, probably approaching timothy hay in value, and perhaps better than late-cut timothy. But as is well known, after maturing their grain, the straw of these plants affords comparatively very little nourishment. So it is with the grasses, when their seed is fully matured; and those who consider them valuable in proportion to the bulk and weight shown, will find they have been deceived. The comparative value of these from the flowering to the fully ripened stage is decreased as the latter is approached. When we are able to demonstrate at just what time in the flowering stage the plant contains the largest amount of nutritive sap, then we know the period for cutting which will insure the most nourishment. Upon the same principle the shell of the walnut, while in its formative stage, contains nutritious matter, but none at all when the meat is formed. The shell is like the thoroughly ripened timothy stalk, a mere husk, as innutritious as woody fibre.

Among important questions which should be settled by the managers of our State agricultural farms, this one of early or late-cut grasses stands among the foremost. When the vast value of our hay crop, as compared with other materials for feed, is taken into account, it gives this question very great importance. In the absence of such careful trials as should be made upon every farm, those in charge of experiment stations, established by legal enactment, and sustained by liberal money appropriations, are altogether inexcusable for not making more thorough tests on the many important practical questions relating to agricultural management, and making the results of these tests public.

Weeds are among the greatest enemies of the farmer. They increase his work, diminish his crops, and rob his land. They spread noiselessly but rapidly, and nothing but a relentless war of extermination will permanently suppress them. This every farmer should wage, not only in his cultivated fields, but also in the fence corners, around the out buildings, beside the hedges, and by the highway. Too many fields are annually seeded from weeds which have been allowed to grow and mature their seeds in these neglected places. No efforts for their eradication can be wholly successful which do not involve the destruction of weeds in surrounding localities as well as in the fields which are under cultivation.

Large Farms.

We take up a Melbourne paper and read of "blocks" of thousands of square miles sold at a few shillings a mile. Twenty-one thousand three hundred and forty-five acres in South Australia, comprising the Beetaloo station, were recently sold at Adelaide for £8,000, the price including 9,000 sheep. Two lots of about 5,000 square miles each, situate in the Northern Territory, were withdrawn, the offers not reaching £1 per square mile. Another block of 2,460 square miles changed hands at 5s. per square mile. Sheep-runs in New South Wales fetch considerably higher prices. One of these, known as the Burrabogie estate, with an area of 235,770 acres, was sold by auction last February in Melbourne, realising nearly half a million sterling, but the "lot" included 138,889 sheep, 131 well-bred cattle, and 124 horses. This enormous estate is divided into 85 paddocks, substantially separated with five, six, and seven wire fencing; it has a frontage of 22 miles to the river Murrumbidgee, navigable during many months of the year; and subsidiary watering is provided by 27 wells of fresh water, 28 large dams and tanks, and many smaller ones. The residence, termed "the home station," is described in the auctioneer's catalogue as comprising "a large and most comfortable house, elaborately provided with every requisite for a gentleman's family, and situated in the midst of an extensive and tastefully laid-out garden and pleasure grounds;" the numerous outbuildings are "all that could be desired;" the five out-stations for overlanders are set forth as "comfortable;" and the necessary accommodation exists for boundarymen and other employees. Six thousand sheep may be washed per day at the sheep wash, and the "boiling-down plant" is said to be capable of reducing 2,000 sheep per week. Much space is taken up with descriptions of the wool-sheds, the various implements, and the live stock. The son of a successful sheep farmer was the buyer at £447,000, and the property is spoken of as a good investment. These huge stations give a fair idea of what sheep farming in Australia means, besides affording evidence of the cheapness of land.

Sorghum for Fodder.

In previous articles we have directed the attention of our readers to sorghum as a sugar producing plant; we now refer to its utility for feeding stock. It is one of our most valuable plants in what ever way we wish to use it; either to cut young and feed to cattle or sheep when our pastures are dried up, or allowed to mature and used as fodder.

The *Rural World* speaks highly of it as follows: Sow before the middle of June, either broadcast or with a common wheat drill, about one bushel per acre, the ground well prepared; after sowing, thoroughly harrow and smooth the surface. As soon as the majority of the stalks are full headed, cut with a self-raking reaper, allow to lay in one day's hot sun, bind and set in small, round shocks. If you do not wish to range the field with stock, let it remain till needed. The after growth will well pay for removing the shocks, but in no case store in large piles or stacks; reset in long shocks about five feet thick. Anyone who pursues this course, and has such weather for curing as he would like for hay, will have a quality of fodder that any kind of stock will greedily eat up clean, and which is far superior to fodder prepared from any other plant.

Canada Thistles.

We clip the following from an American paper. An article on the same subject appeared in our columns some years back, but we never heard the result of rape growing upon thistles; perhaps some of our readers will let us know their experience. We believe that not allowing them to breathe is the only effectual way of destroying them. One year's working them keeps them down, but two years' will utterly destroy them.

"If a field is infested by thistles, give it a turn of rape seed, and this plant will altogether starve, suffocate, and chill the thistle out of existence. A trial has been made with different varieties of rape seed in square plots, when it was found that the whole ground was full of thistles, and no body believed in the rape having a fair run. But it had; and as it grew the thistles vanished, faded, and dried up as soon as the rape leaves began to touch them. Other trials were made in flower pots and garden beds, and the thistle always had to give in, and was altogether annihilated whether fully developed or young and tender."