

## The Dairy.

### FORAGE CROPS FOR SOILING.

Definite information as to the adaptability of the soil and climate of N J for the growth of certain forage crops for soiling has been sought for three seasons by the N J exper sta. Acre plots were used in all the experiments. The seeding of the crops was so arranged as to continue to supply the necessary roughage for a working dairy herd and results demonstrated all may be used for the purpose. Rye, corn, crimson clover, oats and peas and millets furnish the food cheapest. A forage rotation system of one acre produced in one year enough roughage to provide the necessary amount for an equivalent

#### Average Yield and Cost per Acre of Soiling Crops for Three Years.

Crop	Seed planted, bu	Cost of			Yield, ton	Cost per ton	Dry matter		Digestible food		
		Labor	Seed	Manure			Yield	Cost	Cost	Nutritive ratio	
Crimson clover.....	1-5	\$2.40	\$0.91	\$2.50	\$5.81	9.50	\$0.61	1.51	\$3.77	\$0.61	1:3.3
Rye .....	2-4	2.40	1.25	1.50	5.15	7.53	.68	1.37	3.76	.68	1.55
Broom corn, millet.....	3-4	2.66	1.20	2.50	6.36	8.73	.73	1.57	4.05	.73	1.55
Corn .....	4-5	4.76	.16	2.50	7.42	9.52	.78	2.18	3.40	.78	1:15.5
Barnyard millet.....	4-5	2.66	1.00	2.50	6.16	7.41	.83	1.34	4.60	.83	1:7.7
Italian millet.....	1-2	2.66	1.00	2.50	6.16	7.00	.83	1.89	3.26	.88	1:10.4
Oats (2) and peas (2).....	4	2.40	2.96	2.50	7.80	7.50	1.04	1.35	5.78	1.04	1:4.4
Cowpeas (broadcast).....	2	2.66	2.50	2.50	7.66	.22	1.06	0.85	9.00	1.06	1:4.6
Soy beans (broadcast).....	1-2	2.66	3.38	2.50	8.54	7.09	1.20	1.25	6.33	1.20	1:5.6
Soy beans (drills).....	3-4	4.17	1.69	2.50	8.36	5.75	1.45	1.09	7.67	—	—
Barley (2) and peas (2).....	4	2.40	4.63	2.50	9.53	6.10	1.56	0.96	9.92	1.56	1:3.1
Cowpeas (drills).....	1	4.17	1.25	2.50	7.92	4.75	1.67	0.56	11.14	—	—

of 3½ cows for 6 mos. The rotation is, first year, field corn seeded to crimson clover in July or Aug. Second year, crimson clover followed by corn and the land seeded to rye after corn. Third year, rye followed by oats and peas seeded to red clover and timothy. Fourth year, red clover and timothy. The table elsewhere on this page is of interest as showing the relative value of each crop. Further details may be found in Bulletin 130 of the N J exper sta, New Brunswick.

### DRINK PLENTY OF MILK.

Milk is one of the best and cheapest of human foods, yet statistics show that the daily consumption in the large cities is only ½ pt for each inhabitant. Milk is one of the best foods because it contains all the constituents necessary for the complete nourishment of the body, fats, albuminoids, sugar and mineral matter. These exist in readily digestible forms and in proportions well suited to meet the demands of the human system. It probably approaches perfection as a human food more nearly than any other natural product.

It is one of the cheapest foods because, at prevailing prices for milk and other animal foods, it furnishes more actual nutritive matter for the money expended than any other. A quart of milk of average quality, weighing 2.2 lbs., contains as much nourishment as ½ lb of good sirloin steak. With steak at 16c p lb, milk would be worth, on the basis of nutritive value, 12c p qt. This difference in the cost of nutrients of the two kinds of food, aside from the increased cost of preparing the meats and the greater waste in their use, is a matter worthy of consideration as bearing upon the economy of the food supply of the home.

### MARITIME FARMERS' NEEDS

Our farmers greatest needs include the more liberal use of fertilizers or plant food for growing crops, because the fertility of the average farm in Canada has been greatly exhausted by growing grain and roots that were sold off the farm without return of plant food. A good way to restore lost fertility is to sow a liberal supply of clover seed with all crops, to be either fed to animals on the farm or plowed under as green manure. By this process we can take out of the atmosphere an amount of soluble plant food worth \$12 to 15 p a. We find by long experience that clover grown with any crop will increase the weight of that crop.

Next in importance is the care of stable manure. Liquid manure is worth three times as much as the solid and should be carefully saved by keeping plenty of dry swamp muck or other absorbents in the stables to absorb the liquids. It would also stop excessive fermentation in the manure heaps, which should never be left outside exposed to rain and sun. As most of the farmer's work is in his barn and stables, he should build them as conveniently as possible, by having plenty of

light and ventilation, suitable feed bins, root cellar, water, feeding passages in barn to save labor, also a windmill or other power attached to the barn to do the hoisting, cutting and grinding. This would save an immense amount of labor besides the great profit it would bring. Add to this good heavy horses with the best up-to-date machinery at one's command.—[Nell McPhee, P E I.]

Dairy Feeds have been analyzed by the Vt and N Y exper stations under state laws. Each station found that while cottonseed, linseed and gluten meals, gluten feeds, buckwheat, wheat products and middlings varied considerably in composition, yet none were probably intentionally adulterated. Oat feeds, corn by-products, provenders, etc., were found to be considerably adul-

terated, largely with oat hulls. The patent, or condimental, foods, were found to consist of some simple feeding stuff like linseed meal, corn meal or wheat middlings mixed with some cheap drugs like gentian, fenugreek, pepper and iron compounds, and for these the buyers are asked to pay from \$10. to 500 a ton.

The Pasteurizer in butter making should be used at 176 to 185 degrees. At this temperature bacteria were reduced by the N J exper sta from hundreds of thousands to 200 or 300. Butter made from milk heated momentarily to these high temperatures had very little cooked flavor and if rightly handled none at all.

As a Forage Crop, rye is valuable from a food standpoint and because it is one of the first available crops for spring feeding. Seed 2 bu p a in early Sept on land well manured and fertilized. In central New Jersey the crop will be ready for feeding in late April. While the crop matures very rapidly after the heads appear, it can be used 10 to 12 days before it blossoms. The objection offered by many dairymen that at this early stage of growth it contributes an unpleasant flavor to milk has some basis in fact, though in the experience of the station, if the rye is fed immediately after each milking and with the feed ration, the flavor of the milk is not injuriously affected. This crop possesses the further advantage of thriving well from late seedings, thus providing a winter cover crop for soils that would otherwise be subjected to losses from leaching caused by the winter rains and snows. Where it is not desirable to practice soiling, the crops may be pastured. This method while more wasteful is less expensive than soiling and provides green feed for the stock. Rye is particularly important in dairy regions particularly. It is very important and before other pasture is ready. [Director L. B. Voucher.]

The Guernsey Herd Register for July, 1900, is fully up to its usual standard of excellence, containing reports of various breeders' meetings, and an article on How to tell a good cow, by Prof Hayward of Pa. The several fine half-tone illustrations are choice selections of the breed Registers of bulls now reach 6536, and cows 12,559. The Register is a credit to the Guernsey cattle club.

PARTIAL PARALYSIS—G. D. (N C) has a cow that had a badly swollen face for a few days. The swelling is now gone but she has little use of the muscles of the cheeks and allows the saliva to dribble out of her mouth. Rub the affected muscles well once a day with tincture of cantharides. Also give 1 dr nux vomica at a dose in a mash of bran twice a day and continue it for several weeks.

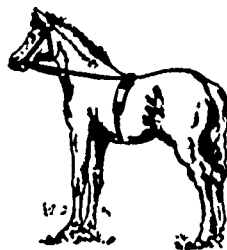
MILKWEED—G. M. R. (N H) wants to know if milkweed in hay will hurt horses and what is the best method to get rid of it. Horses will not eat enough of the milkweed to do them any harm. Good cultivation is the only way to rid fields of this weed.

## The Horse.

### TEACH COLTS TO WALK FAST.

There is no pace so valuable or so much appreciated and so practically useful in a horse as a fast, fair, square walk, and there is nothing that will cause an animal to be driven harder and kept so continually on the other paces as a deficiency in this respect. So far as the walk goes, the horse is generally put upon the market as nature made him, and rolls along at the pace his ambition dictates, commended by his owner as a wonder if he happens to walk fast, and sworn at and over-driven by everyone if he chances to be lazy and slow. The fast walker is often made so by being put with a mate while breaking which happened to be a quick, free mover, and no farmer or breaker can be too careful in seeing to it that no colt of his is ever either driven or led beside a sluggish, inactive partner.

Helps in Horse Breaking—By the time I get ready to hitch young horses to drive, they are more than half broken. I get the colt familiar to the harness by means of a biting rig. This is composed of a bridle, surcingle and crupper. While the animal is small enough to handle easily, this is put on and left two or three hours a day, the horse being given the liberty of the pasture. Straps run from the bits to the surcingle will get him familiar with the lines. It is little trouble to put the biting rig on and a well-bitted animal is easily broken.—[J. L. Irwin, Nemaha Co. Kan.]



Don't keep the horse from water so long that when he does drink he gorges himself.

The fastest mile ever made in Canada was paced on the "Indoor (Ont)" track July 12, by Joe Patchen. His time was 30, 1.01, 1.33½ and 2.04½. The last quarter was made in 29½ seconds, or at a 1.53 gait.

California hop growers have formed an ass'n to improve the industry, regulate supply and demand and maintain fair prices. To insure success, the ass'n must secure contracts binding 75 per cent of the hop acreage of the state to abide by its decisions.

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