

properly fixed up, thus insuring a poor butter yield and short milking season, as a direct consequence of mean feeding months back.

The age of the animal has a great connection with the profit made. A 79 pound pig or a yearling steer or heifer, will make more gain from decent feed every day than a full grown one that costs twice as much to maintain it. I cannot expatiate on this important fact in stock feeding, but every farmer should keep it in mind.

A milch cow, worth calling a cow, is a decided exception to this rule. She will make more profit out of proper feed when she is 10 years old than she is likely to do at 5. The more carefully she is trained and fed for milk production, the more will she be able to turn the feed into the right channel. The management is an important part of feeding. Regularity and kindness are always a source of profit. A cold drafty stable is a steady drain on profit, and to take a beast out of a warm stable and to drive it away to a water hole in a wind swept prairie is about as wise as to pour feed into a rat hole. Some one once asked an old neighbor of mine how he managed to get rich when every body else was getting poorer. "That's easily settled," said Johnny, "Set your heart and soul on it." Whole hearted attention to any beast, especially if that beast is a good cow, will ensure profit in very hard times.

RAPE FOR COWS.

I have a thoroughbred Holstein cow. On August 6 I sowed one pound of rapeseed on a piece 165 x 13 feet, and in five weeks it was five feet high and very thick. I picketed my cow so that she could get at two feet on one corner; she looked at it, then tasted it, but did not eat much as good grass and clover were on the border. I put her in the same place the next two days; the third day it looked as though it had been sheared, it was eaten so close. After that, she would eat rape before she would grass. The flow of milk increased about one-quarter with no bad flavor. (1) It was eaten all over three times before the cold weather prevented it from growing again.

Berlin, N. J.—R. W. Yorker.
C. M.

YOUNG STEERS.

2. H. will soon have to abandon his idea of fattening what he calls "young steers" (three years old.) Rapid growth and early maturity must be the system which pays. All experiments to that end have shown that it cost less to put 10 lb. on the 3 months' calf than on the 6 months' calf, less on the 6 months' than on the 10 months' calf, and less upon the animal 10 months' old than upon one 15 months' old—or that it constantly cost more to put on a pound live weight as the animal grows older and heavier. And as H. has the book on "Feeding Animals" let him turn to page 249, and read all that is said upon "baby beef," and he will see that he cannot afford to feed 3-year-old steers. H. may make his fattening ration in grain in the proportion of 3 lb. brand and 4 lb. gluten feed. If the steers weigh 800 or 900 lb. he may use 12 lb. hay, 20 lb. pulped roots, 6 lb. bran and 8 lb. gluten feed. The roots may be turnips, beets or carrots, and if the

(1) We have often fed our cows on rape, and never found a bad taste from it.—Ed.

animals are thrifty it will produce rapid fattening. But they should get all they can digest after a few weeks of feeding. A skillful feeder can push them rapidly on this ration. The bran and roots will keep them in good health. E. W. S.

Country Gentlemen.

RAISING DAIRY HEIFERS AND COWS FOR SALE.

The marked success of a few dairy farmers in the vicinity of Fort Atkinson last spring in the sale of grade Jersey and Guernsey calves through advertising in this paper finds a counterpart in the sale of several car loads of grade Jersey cows from the town of Bovina, Delaware Co., N. Y. These cows also owe their sale to *Hoard's Dairyman* as was clearly shown by Josiah D. Smith in a recent communication.

These facts lead us to the consideration of some things: First, why are there not a great many more enterprising dairy farmers who make a business of breeding good grade heifers for sale? It is a fact that the fewest heifer calves are raised in the heaviest dairy districts. This is a serious mistake. The dairy farmers can use his skim milk to no better purpose than to raise a fine grade calf. If he does not want her for his own dairy, she is surely wanted somewhere else. The three and six months old calves sold from Fort Atkinson last spring brought from \$16 to \$22 a head. This was a good profit for the cost of keeping. All over the state of New York, Ohio, Pennsylvania, and other eastern states, as well as in the west, are communities of dairy farmers who could each easily raise and sell from six to fifteen likely heifer calves each year. All that is necessary to do is for a number of such farmers to combine and advertise their heifers in the *Dairyman*, and the ad. will be quite sure to find a purchaser somewhere. It is easy to charter a car and send the young things anywhere in the United States or Canada. A little good business sense and Yankee enterprise only is needed on the part of these farmers to add a good sum to their yearly revenue. The same argument applies to the sale of good grade cows. Last spring there were dozens of purchasers who wrote us and who were ready to take good grade heifers or cows by the car load, but who could not find them, because dairy farmers did not take advantage of this want.

Farmers need to learn how to apply the old business adage, "If you have a good thing to sell, advertise it." It is easy to hold the cent of expense so close to our eyes that we cannot see a ten dollar note of profit behind it. When a dairyman knows of a good likely grade heifer for sale at moderate price it is well to buy it if the farm will admit of its keeping. Why should not a smart dairyman be a good cattle merchant as well? No one need to worry about the market. It is always in front of any man who has the gumption to advertise and let the buyer know what he has and where he lives. And this very fact is one of the strongest arguments for a dairy farmer keeping a live dairy paper on his table. It puts him in the current of dairy business, where he can see and take advantage of a thousand things and suggestions to his own personal good. One enterprising dairyman in Pennsylvania said to us last winter, that this paper had been worth

more than a thousand dollars to him in the last four years in helping him to buy and sell, alone. A good dairyman needs to get into the current of his own business the same as other men.

ORIGIN OF AYRSHIRE CATTLE.

The Ayrshire breed of cattle is of comparatively recent origin, and it would seem that the books ought to give us a pretty accurate description of the time, place and manner of its development. No work, that we have seen or heard of, published prior to 1825, makes any mention of such a race of cattle. The name indicates that it must have originated in Scotland. Prof. Geo. W. Curtis, in his work on Horses, Cattle, Sheep and Swine, quotes from a work published in 1842 as follows:

"We may assume, then, from all the evidence, which in the absence of authentic documents, the case admits of, that the dairy breed of Ayrshire owes the characters which distinguish it from the older races to a mixture with the blood of races of the continent and of the dairy breed of Alderney."

But now comes a Mr. J. A. Wallace Dunlop, of Poowong, Australia, who assumes to settle this much mooted question by writing to the *Australasian* as follows:

My great-grandfather, John Dunlop, of Dunlop, about the year 1740, crossed a Devon bull on some Guernsey cows, and a Guernsey bull on some Devon cows; selections were made and re-crossed, from which crosses sprang the renowned 'Dunlop' or Ayrshire cattle. It is a matter of family history that the foregoing is the true origin of the Ayrshire cattle.—*Hoard*.

Swine.

THE MODERN RENT PAYER.

There can be no doubt but that the popular type of American hog has undergone a marked modification in recent years. The writer recently marketed some 450 pounds hogs in Chicago, the first buyer who saw them said, "don't want them at any price," other buyers were found who were willing to handle them at a reduction of 25 cents per hundred below hogs of equal quality 150 pounds lighter, which price was finally accepted as the best that could be done with them. The hogs in question were all barrows and as smooth a lot of 450 pound hogs as the most exacting buyer could ask; in this respect they were faultless, but too large for modern demands. The sacrifice of 25 cents a hundred on selling price was by no means the only loss sustained in making hogs of this weight as the last 150 pounds of weight probably cost as much as the 200 pounds preceding it. It is a well established fact that gain can be made in hogs weighing 200 pounds much cheaper than in those weighing 400 or over.

Another modification that is just now demanded is a hog with less fat and more well flavored lean meat, larger and better bacon cuts. While corn must remain our chief hog feed, it will nevertheless pay to heed the demand for an improved bacon hog in our methods of feeding and breeding. The dairy fed hog will possess improved qualities in this respect.

Farm and Dairy.

DAIRY CONFERENCE IN SWITZERLAND.

ZURICH, MONDAY, JUNE 4TH.

A glorious change in the weather came just in time for the members of the British Dairy Farmers' Association and their friends, 145 in number, now in Switzerland for the annual conference and excursions.

The rail journey of some 700 miles from Calais to Zurich, occupying nearly nineteen hours, was rather tedious and wearisome until the old frontier between France and Germany was reached, and the train passed into the beautiful and fertile Elsass (formerly Alsace) country, where the Rhine soon came into view. From that point the scenery became more and more beautiful, when the Swiss frontier was passed and a distant view of one of the finest of snow-clad Alpine ranges was obtained.

On Monday morning the first move was to the Federal Seed-Control Station in Zurich, managed by Dr. Stebler (the director), for testing the purity and germinating power of seeds. The arrangements for testing are excellent and the establishment has obtained so high a reputation that seeds are sent from many countries to be tested in it. Last year 400 samples were sent from England and 200 from Scotland. Thirty samples are tested for £4. Beautiful preserved specimens of grasses and forage plants are to be seen in the institution. Only 25,000 francs (£1,000) per annum of public money are required for the maintenance of this excellent institution, which is partly self-supporting.

The party next visited the Zurich Cantonal Agricultural School at Strickhof, about three miles from Zurich, where the attendance is forty to fifty-two, the pupils remaining during a two years course. Swiss boys pay 200 francs per annum; others 600 francs. Instruction is given in agricultural, natural history, chemistry, languages, &c. Boys who require dairy instruction go to the Sornthal Dairy School, not far distant. The Strickhof School was established in 1853, and nearly a thousand young men have passed through it. The Principal is Herr Lutz, who is assisted by ten indoor teachers in winter and eight in summer. There is a farm of 90 acres attached to the school, upon which the pupils do all the work, including the milking of the cows, under the direction of workmasters. Ordinary farm crops and fruit are grown, the purpose of the farm being to afford the means of practical instruction in farming and fruit-growing. Bee-keeping also is taught, and there is a capital bee-house, a small circular building, in which the operations of the bees can be seen through glass. The annual cost of the institution is 30,000 francs, paid partly by the Federal Government and partly by the Canton of Zurich.

Cows of two breeds—the Schuytz and the Simmenthal, the two national breeds of Switzerland—are kept. The former are noted chiefly as milk producers, and the latter for beef. The Schuytz are of a greyish mouse colour, some being silver-grey. The Simmenthal cattle are of a yellowish-fawn and white. The specimens of the former breed were very much admired by the visitors. The other animals are less symmetrical. Twenty-six cows, besides young ones, are kept, the milk being sold in Zurich. The average yield during the whole period of milking for the cows is about 10 litres, or 17½ pints, a day; but whether this