

the disease was virtually almost stamped out in pure-bred herds. This has been accomplished in five years. In 1915 less than one per cent. of the pure cattle tested reacted. In 1908, seven years previously, the reactions in the same were 36 8-10 per cent. The third result was that soon the breeders became anxious to have their herds tested, however hostile they may previously have been to the test. They found it was better in every way to grow cattle free from tuberculosis.

The change of sentiment on this question in Minnesota during recent years has been very great. Even as late as 1903, when the Live Stock Sanitary Board was formed, the breeders of pure-bred cattle in the state were almost a unit in their opposition to the test. They vowed that it was not reliable. "They claimed that it injured the cattle and said many other things against it. A few of them, however, did not think thus. They tested their herds and advertised the fact, and this gave them an advantage in selling which led to others doing the same. But still the progress was slow until the law was passed that compelled the breeder to furnish a clean bill of health with every pure animal that he sold that was over one year old.

The owners of live stock in the state have been leniently dealt with in the case of animals found tuberculous. The animals which fail to pass the test are kept under strict isolation or slaughtered. Those that are slaughtered are paid for as follows: Before slaughter they are appraised. The appraisal may be as high as the real value of the animal, but it cannot go beyond \$150. It is then sold when slaughtered. The price obtained for the carcass is then deducted from the appraised value, and the owner is paid three-fourths of the difference, and also the value of the carcass. This treatment is at least fairly liberal, and it also has done much to disarm opposition to the test.

It is in a sense surprising that the tuberculin test has met with so little favor in Britain. The proportion of the herds tested is relatively small. This is all the more surprising when countries that import from Britain are a unit in demanding a certificate of test with reference to every animal imported. When the writer selected animals that were to be imported for Mr. Hill in 1913 and 1914, not a few of those at first selected and bought on the condition that they would pass the test failed to pass it. In every instance they were left in the herd. Can a more effective way be imagined of spreading the disease? Many of the breeders will tell you frankly that they have no faith in the reliability of the test. In such instances the conclusion may be safely reached that there is more or less of tuberculosis in that herd.

Some herds are tested, and the number of those is on the increase. These are the herds to buy from when importing. In one such herd the writer bought 27 animals without a single instance of reaction. In another herd, one of the largest in England, six cows were bought conditionally. Five of the six failed to pass the test. The sixth was brought to this country and when tested she reacted. Thus it is that though an animal should pass the test in a herd that is much infected in Britain there remains the hazard that the germs of the disease have been contracted, and that they are in process of incubation. If importers generally aimed to buy only from breeders who regularly tested their herds, the influence on those who did not would be very wholesome. Of course, where herds are badly infected, to remove the infection will involve loss, but the loss will be less than it would be in the end if the infection were not removed.—Prof. Shaw, in "The Farmer's Advocate and Home Journal," Winnipeg, Man.

English Live-stock Notes.

EDITOR "THE FARMER'S ADVOCATE":

The English Dairy Shorthorn Association prints in its 1916 Year Book the milking records yielded by 505 cows between October 1, 1914, and September 30, 1915. Thirty cows gave 10,000 lbs. of milk and over; 50 cows 9,000 lbs.; and 59 cows 8,000 lbs. Yields of over 11,000 lbs. I quote below:

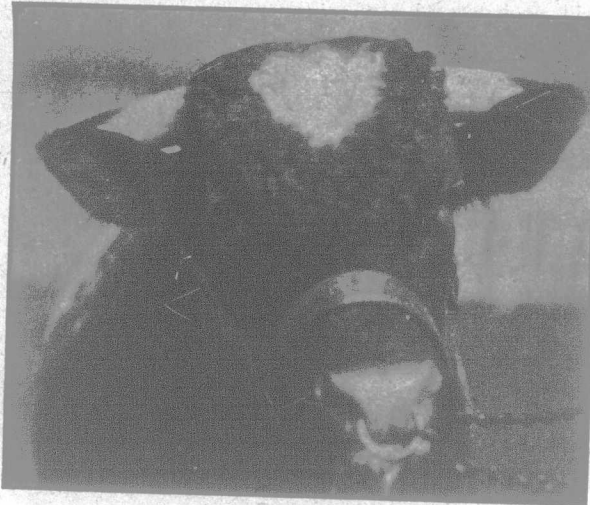
	Days	in
Lady Clara.....	12,297	317
Rose 44th.....	12,809	365
Groves Jane.....	11,700	365
Blushing Maid 2nd.....	11,641	365
Primrose 3rd.....	12,020	365
Shard Blanche 2nd.....	11,117	335
Groves Sybil.....	11,586	304
Sincerity.....	11,926	362

For sappy, dairy Shorthorns capital prices were secured at J. C. Cooper's sale at East Haddon, Northampton, where thirty-six of his cows and heifers averaged \$293.82, and three bulls \$246.66 apiece, whilst six bulls submitted for sale by Captain A. S. Wills, at the same time, averaged \$378.12, and so gave the splendid figures of \$301.94 each for forty-five head sold. One bull, Thornby Don, a rich dark-roan yearling by Drusus, from Victoria 2nd, giving over 60 lbs. of milk daily with her second calf, made 200 guineas, about \$1,000, falling to the final bid of G. Kelsey Burge. One of the best type, the Kt. Hon. Frederick Wrench's Shorthorn bull, Baron Caster, was sold at Dublin for 900 guineas, or about \$4,500. This sale followed the recent trouble in Dublin, and remarkable prices were got considering.

The show season has started, and the Suffolk Agricultural Society gave us a fine all-round exhibition of breeds chiefly produced in Eastern Anglia. Suffolk horses were, of course, well represented, and the competition was chiefly between studs of Kenneth M. Clark, Arthur T. Pratt, and Sir Cuthbert Quilter. Pratt showed the champion stallion, in Morston Friday, last year's Royal Show champion. The champion mare was selected from the yearling fillies. She was Kenneth Clark's Sudbourne Moonlight by the unbeaten Sudbourne Peter. Arthur Pratt also did well with his stallions, taking firsts in the two-year, three-year and aged classes. The best collection hailed from Sudbourne Stud.

Red Poll bulls were a particularly fine lot, the champion being W. Woodgate's four-year-old Redgrave Reveller. He was second at the Royal last year. The Easton herd of the Marchioness of Graham supplied the champion two-year-old heifer, Marham Alma.

Jerseys were of exceptional quality. Joseph Carson had an outstanding win in what could be called the champion male class with his young bull, Minley's Self Acting. W. M. Cazalet won the female championship with his cow Jolly Berne Lass.



Shorthorn Character.

The head of a champion and high-priced young Shorthorn bull.

Suffolk sheep made a capital display, and Herbert Smith easily held his own, taking championship for best pen of ewes, while he also won the award for best collection. Miller Osmond won championship for two-shear rams, and Lady Wernher was winner of champion trophy for Southdown shearing ewes.

Best beef in London is making up to \$2.28 per 8 lbs. Best sheep are making from \$2.24 to \$2.48 per 8 lbs. Lambs sold up to \$2.88 per 8 lbs. for best, and \$2.64 for second grade. At Ashford, best beef is fetching \$2.12 per 8 lbs. Prime Scots cattle at Leeds are costing 28 cents per lb. Prime English and Scots at Salford average 27 cents per lb. At Leicester Scotch bullocks make 28 cents per lb., Shorthorns 27 to 27½ cents, young cows 24 to 25 cents, heifers 27 to 28 cents. At Darlington sheep in wool make 30 to 34 cents per lb. Pork at Lincoln make \$2.52, a stone of 14 lbs. At Cambridge it is worth \$2.64 to \$2.88. Porkers at Newcastle realize \$3.00, and bacon pigs \$2.88 a stone. Strong store pigs at Kirbymoorside are worth \$9.60 to \$12, and small store pigs range from \$8.40 to \$9.60. Milch cows at Wakefield sell up to £40, and store cattle at from £14 to £25.

T. A. Buttar, a Scottish breeder of the Shropshire sheep at Corston, Coupar-Angus, has sold to John Miller, Jr., Ashburn, Ontario, 102 ewes and 27 shearing rams of rare quality.

To a Connecticut lover of the Aberdeen-Angus breed, J. J. Cridlan, Maisemore, England, has sent five valuable specimens of rare breeding.

ALBION.

The Importance of Good Pasture.

In live-stock farming the pasture land is becoming a very important factor. With ample silo capacity, plus soil and climatic conditions favorable for the production of corn, a farmer can winter a goodly number of live stock on 100 acres. He then gradually cuts into the pasture to provide more available land only to find that his wintering problems have vanished

and have been replaced by the difficulty of procuring sufficient grass for summer. When labor was reasonably plenty the old pasture land could be made to yield more abundantly under hoed crops or grain than under grass, and for several years there was much breaking of the sod and a continual diminution of the permanent pastures. At present, with few farm laborers available, one man on 100 or 150 acres will find it difficult to maintain the balance he has adopted between his cultivable and grass land, and will probably be obliged to relinquish some fields previously cropped. Too often the pasture receives no consideration except adequate fencing, and here is where we lose through neglect. A farmer is a busy man in summer, and has little time to devote to his store or growing cattle. Nevertheless they should be thriving and putting on gains, for if this is not accomplished during the grass season they will make costly cows or feeders. In some instances it requires 3 acres of grass for one cattle beast, this is too much; often two head are maintained on each acre, and we have seen grass land that would and did support one head per acre. The latter condition is getting near the ideal. On Jersey Island, with an area of 28,717 acres, there were about 40,000 head of cattle kept for years, but the soil is fertile and the climate mild. Undoubtedly the character of the soil and the nature of the summer weather are influential factors in determining the possibilities of our pasture land, yet viewing these from the standpoint of averages we do not so handle our grass lands as to induce them to carry the numbers they should.

If there is to be an increase in pasture land, as we expect there will, some thought and attention should be given to the matter. First, as regards seeding, a clover and timothy sod is not the most productive. When to be used for pasture land, it should be seeded with a mixture of grasses and with the kinds that are likely to bear in different periods of the season. On low-lying land, red top is useful, and alsike clover does well, both to be sown with timothy and red clover in diminished quantities. A mixture of red clover, timothy, meadow fescue, Kentucky blue grass, white clover and red top grass will make a far better pasture than will timothy and clover sod. Second, as regards fertilization there is much that can be done. Up-land pastures can be improved very much by a top-dressing of barnyard manure, and where this has been done it has paid handsomely. Sheep manure, however, should not be applied to land where sheep are allowed to graze. Disease and insect pests are spread in this way. Basic slag is a good invigorator, and bone meal is serviceable, particularly where phosphates are required. Lime, too, will often effect a change for the better.

A whole book could be written on the care of pastures, but it is our object here only to direct the attention of our readers to the importance of their grazing lands. They are becoming an important part of each farm holding, and when the maximum number of animals per acre can be carried over summer a step will be made towards the maintenance of more live stock.

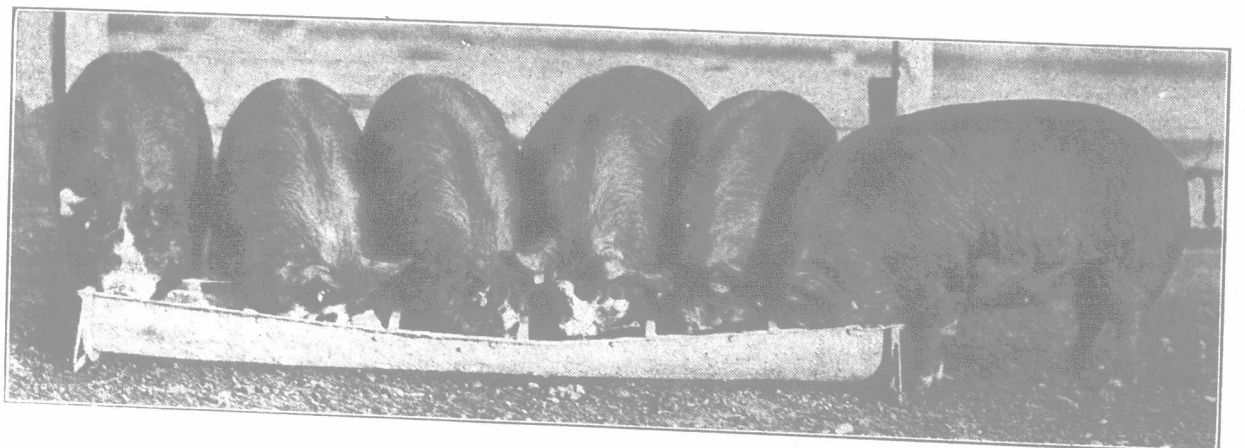
THE FARM.

Another Letter on Economy.

EDITOR "THE FARMER'S ADVOCATE":

After reading Mr. Good's "Reply on Economy" in the June 15 issue of your paper in which he accuses me of writing a letter largely of invective, I felt that, though paying him in his own coin, I had perhaps been rather generous with it. If so I humbly beg his pardon. And were it not that my name appears at the end of the letter to which he refers, not because I put it there, but because otherwise the letter would not have been published, I would have said no more about it, but would have let him march out with the honors of war. Justice and courtesy, however, demand an answer.

The reason I did not reply to his "protest" concerning a letter on co-operation was that as "the Farmer's Advocate" is devoted largely to practical farming and has little sympathy with mere wordy controversies I did not wish to use valuable space by an unprofitable discussion. And the reason I did reply to his articles on political economy was not that I entertained towards him a feeling of malevolence, but that I did not want to see Canadian farmers deluded into thinking that a great stimulation would come to agriculture



A Berkshire Banquet.