

nature effects this without extraneous assistance. As a simple matter of fact, there are few horses that have done considerable road work that are free from splints, although they may never have gone lame, and there is no visible enlargement.

WHIP.

England's Future Light Horse Breeding.

Editor "The Farmer's Advocate":

The British Government is going to bestir itself in the matter of looking after its future races of light horses—particularly those light horses which may be wanted for future wars, or, let us hope, for those days when we shall be more prepared for the next war, if this present war should not prove to be Armageddon, or at least, the last of all strife.

Lord Selborne, as Chief Minister of Agriculture, in the late summer appointed a Committee of expert horse breeders—all of them—to enquire into ways and means of securing for the country an adequate supply of horses suitable for military purposes. The Committee's findings summarized are:

That the Board of Agriculture should:—

1. Institute legislation to require compulsory annual registration by the Board of all stallions that are travelled for a service fee, or are publicly exhibited for stud purposes.
2. Increase the number of King's Premium stallions.
3. Arrange for the inspection of stallions recommended for Board's Premiums.
4. Continue brood mare scheme, and buy high-class mares for resale to selected breeders.
5. Buy stallions suitable for country service.
6. Provide funds for the award of prizes for brood mares and foals.
7. Arrange for a compulsory annual census of horses.
8. Reconstitute advisory council and county committees.
9. Appoint expert staff of officers to supervise the scheme.

The War Office should:—

1. Buy more horses in England and Wales.
2. Increase horse peace establishments.
3. Buy more horses direct from breeders.
4. Buy remounts when rising four.
5. Buy specially selected fillies, and leave them with breeders until they have reared foals.

Henry Chaplin, M.P., one of the Committee, who has long been a pioneer of state horse breeding, raising the subject in Parliament in 1875, adds reservations in a supplementary report. "If any real and substantial improvement is to be made in the horse supply of the country," he says, "it can only be made with the aid of Government funds on a liberal scale." He suggests that racing and farming should be represented on the central authority.

The Advisory Committee wisely consider the appointment of an expert and adequate staff of officers of the Board to be essential, inasmuch as the success of any national horse-breeding scheme must depend upon proper supervision. They suggest that the country should be divided into districts, and that in each district there should be stationed an officer of the Board whose sole duty should be to promote and supervise the light-horse breeding operations of the Board. The staff should consist of men who are fully qualified, by practical experience and knowledge, to carry out the following duties:

- (a) To advise breeders as to the selection, mating, rearing, and disposal of their stock.
- (b) To supervise the service arrangements of stallions purchased by the Board, and of premium stallions, and to inspect and keep records of their stock.
- (c) To keep in close touch with War Office buyers, and to arrange for collection of horses for inspection and purchase.
- (d) To act as secretaries to county committees, and to supervise generally the horse-breeding scheme of the Board.

Hitherto the Army has been a comparatively small customer in the horse market of Great Britain—the normal purchases in the United Kingdom in times of peace amount approximately to only some 3,000 horses a year, and of these 80 per cent. are bought in Ireland. The fact that the purchases are to-day made chiefly through dealers, and consist only of horses over the age of four does not tend to bring the War Office into touch with the breeder, nor will any breeder in Great Britain attempt, under existing conditions, to breed horses especially for remount purposes, as it would not pay him to do so. The existing system of purchase has been adopted because it is economical and convenient, and, provided the Army can secure, at the prices they are prepared to offer, horses in sufficient numbers and of the type, age, and quality required (and they can do so in peace time), there would seem no good reason to make any alteration in the methods employed. The middleman, i.e., the dealer, saves an enormous amount of trouble and expense, as he knows the requirements of the Army buyer, collects batches of suitable horses

for their inspection, and does not waste their time by trying to sell animals that are evidently unsuitable for military purposes. Again, horses between the age of four and seven are ready and fit to go into the ranks much sooner than horses purchased at three from breeders.

It is hinted that the peace establishment shall be materially increased so as to make a bigger market for breeders. They declare that more horses should be purchased direct from breeders. They, however, recognize that breeders must be educated as to the types of horses required for military purposes, as to the advantage of having their horses in suitable condition for inspection by Army buyers, and as to their fair and commercial value. Again, it is recommended that as many remounts as possible should be purchased when rising four, as the earlier the breeder can get rid of his young stock the better pleased he will be, and the more ready to study the requirements of the War Office. There is sound sense in the suggestion that in the event of there being some specially good three-year-old fillies, the War Office should purchase them and leave them with breeders until they have produced and reared foals, but we suggest that great care should be taken in determining the conditions of purchase and in selecting the breeders. Finally, the Committee hint that mares which appear to be specially suitable for breeding purposes should be drafted from the ranks at ten years of age and transferred to the Board for disposal under their brood mare schemes.

ALBION.

LIVE STOCK.

New Records in Pork Production.

Last week and the week previous a number of Ontario farmer boys took the course in Live-Stock and Seed Judging at the Ontario Agricultural College at the expense of the Ontario Department of Agriculture. The prize, than which none better could have been donated unless it were a longer course, was a reward for winning in a "Feeding Hogs for Profit Competition," conducted under the supervision of the District Representatives in the various counties. The idea is a good one, and such experiments conducted under actual farm conditions should tend to excite a greater interest in the determination of more profitable and sufficient rations, and in the gathering of more complete information regarding the cost of production. The point, however, to which we wish to direct the reader's attention, is the exceedingly low cost of producing pork un-



A Poland-China Boar.

A winner at the Western Fair, London, Ont., 1915.

der conditions on the farms where these trials were carried on. The outcome of the competition, at first sight, appears paradoxical, for the young men took a course of training at an institution where hogs cannot be produced as cheaply as the students themselves had done. This is no reflection on the Agricultural College at Guelph. Possibly further information from the young men who fed the pigs would solve the problem and explain the difference between their results and those of long-established and reliable experiment stations. It is possible, that, with pasture, plenty of milk and a number of different kinds of meal, a good feeder can reduce the generally conceded cost of making 100 pounds of pork. However, the matter has been under experimentation for years and years, and every factor likely to have any influence whatsoever has received consideration. If there has been nothing forgotten when the contestants were reporting results to those in charge, and the tests were carried out similar in detail to those reported by our need of new work being conducted in order to acquaint farmers with the actual cost of making a pound of pork under farm conditions. A study of the summary of results will throw some light on the matter.

In order to standardize the test over the Province, certain rules were laid down. The hogs

were selected when six weeks old, and a value of \$4.00 was placed on them at that age. They were fed until 22 weeks of age, and a record kept of the amount of feed used each week. Feed was valued as follows, prices being per ton of each commodity: Ground oats, \$28.00; ground barley, \$28.00; corn on cob, \$18.00; shelled corn, \$28.80; ground wheat, \$35.00; bran, \$23.00; low-grade flour or red dog, \$32.00; shorts or middlings, \$28.00; corn on cob, \$18.00; shelled corn, \$28.80; tankage, \$46.00; green feed, \$2.00; skim-milk, \$5.00; buttermilk, \$6.00; whey, \$3.00; pasture where used was charged at 75 cents per hog. In estimating the profit the value of the hogs, live weight, fed and watered, was taken at 9 cents per pound.

The following table gives some information regarding costs, etc., as reported by the five contestants who showed the greatest profits. They are the returns of the winners in the counties mentioned. The figures are the average for one hog only:

FIGURES FROM FIVE DIFFERENT COUNTIES.

County.	Av. cost of production.	Av. value.	Av. profit.
Grey	\$12.53	24.84	12.31
Oxford	13.63	24.84	11.21
Renfrew	9.14	19.65	10.51
Frontenac	8.06	18.69	9.83
Middlesex	9.33	18.72	9.39

It must be remembered that these averages are not compiled from the results submitted by all the contestants in each county; they are simply the summarized report of the winner in each case.

In the first instance the winner in Grey County has placed the average value of his hogs at \$24.84. At 9 cents per pound these hogs must have weighed on the average 276 lbs. Remembering that the pigs were only 22 weeks or less than 6 months of age, this young man must be credited with knowing how to provide pork. Again we will assume that at 6 weeks the young pigs weighed 50 pounds each, which is a good weight, indeed, at that age. This would leave 226 lbs. of growth and weight put on in 16 weeks of feeding. The total cost was \$12.53, and subtracting from this \$4.00, which was the value of the pig when 6 weeks old, we find the cost of feeding for 16 weeks and making 226 lbs. of pork to be \$8.53 or \$3.77 per cwt.

Analyzing the report in another way we find the average price of the different meals to be very approximately \$30 per ton, or 1½ cents per pound. Milk and whey have been given values which represent their efficiency as compared with the meals, so it is quite fair to use the word "meal" to represent all these feeds, and speak of such meal as worth 1½ cents per pound. For instance, a pound of meal would be equal in feeding value to 5 or 6 lbs. of milk, and each would be worth very nearly 1½ cents. Reducing all feeds used to terms of meal it is found that each 100 lbs. of gain was put on for \$3.77 or almost exactly 250 lbs. of meal, calculating such at 1½ cents per pound.

Experiments in the United States have shown that 400 lbs. of meal are required to produce 100 lbs. of gain on pigs weighing from 50 to 100 lbs., whereas pigs weighing from 150 to 200 lbs. required 482 lbs. of meal to make 100 lbs. of gain. Prof. G. E. Day, at the Ontario Agricultural College, arrived at the following results: pigs weighing 54 to 82 lbs. required 310 lbs. of meal for 100 lbs. of gain; from 82 to 115 lbs. they required 375 lbs. of meal for each 100 lbs. of gain; those weighing 115 to 140 lbs. required 438 lbs. meal for 100 lbs. gain, and those weighing from 140 to 170 lbs. required 455 lbs. of meal for 100 pounds of gain. At the College last year young pigs were grown to 170 lbs. of weight on 280 lbs. of meal for 100 lbs. of gain, but this was from the time they were weaned. The older and larger the pig the more pounds of grain are required for each pound of gain.

Enough has been printed here to show that the results submitted by some of the contestants are not in harmony with the teachings which have for so long been considered correct. We do not consider it heterodox for farmers to advance ideas or submit results which do not agree with established doctrine. However, since the results of the "Feeding Hogs for Profit Competition" have been published, setting forth the profits which accrued, and seeing that these figures do not agree with the reports on experimental work conducted by paid officials, it seems necessary to direct attention to the matter and suggest that something be done this coming season to harmonize these various reports, and perhaps arrive at new and final information regarding the cost of a pound of gain.

It is possible that the young men were untrained in the art of experimenting, and did not realize the importance of recording every little thing which went to make up the daily allowance. If such be the case the profits would be high, and the cost of production low in proportion to the extras fed but not recorded.