

## THE FARMER'S ADVOCATE AND HOME MAGAZINE.

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out in every possible way, and keep their constituency informed as to the latest research work being conducted all over the world. No institution can grow properly that is nurtured within its own shell. The O. A. C. has done splendid work, but is capable of doing better, and we respectfully commend these suggestions to the Hon. Nelson Monteith, Minister of Agriculture, and to his chief, Premier Whitney. Some few years ago the limit of salaries was raised from \$1,800 to \$2,000, and the members of the staff are being increased \$100 a year—except Prof. Day, who, by a special Order in Council in 1903, was advanced \$400 to the maximum. Prof. Zavitz has reached the limit, and at the end of 1907 there will be others to be considered. It is quite certain the maximum cannot remain permanently at \$2,000, and, while it is far from our part to counsel recklessness in Departmental Administration, we believe the Minister will be justified in considering a change that would permit the payment of larger salaries to the heads of the important college departments.

### The Farmer is the Man.

In a recent address, the Hon. R. P. Roblin, Premier and Minister of Agriculture for Manitoba, made this declaration of faith in regard to the true source of wealth:

"I challenge any man to prove, or even assert, with any degree of authority or knowledge, that any banking institution, any wholesale house, or any departmental store, no matter how large, ever added one new dollar to the wealth of the realm. But the farmer who tills the soil and sells one bushel of wheat, or grows a bullock for the market, adds to the wealth of the nation. Therefore it is to the sturdy husbandman of this country that we look for that development and that progress that we aspire to make in Manitoba, one of the most if not the most important Province in Canada, as far as agriculture is concerned."

## HORSES.

### Horse Breeding.

In a lecture delivered by Mr. G. A. Ferguson, in connection with the Aberdeen University Agricultural Discussion Society, recently, Mr. Ferguson said the breeding of horses resolved itself into two branches—the principles of breeding, and the practice. The surest method of carrying out and improving the practice was by diffusing as much as possible the correct principles. The object the breeder had in view was the production of a first-class animal—an animal that would be an improvement on its parent. The way to bring this about was to breed on a sound plan, and not at haphazard. Like producing like was as nearly as much an exception as a rule, in horses. Like did produce like, but not in the generation wanted, for often they found that the sins of the fathers were visited on the children in the third and fourth generation. The type of horse would always be dependent on demand, and he thought he was near it when he said that the type they now had was nearer satisfying all the demands that might be made upon it than any other type that had hitherto existed. Pedigree could be abused, and often was abused. Used rightly, however, it was invaluable. What was wanted in Clydesdales was more line breeding. Line breeding, however, must not be confounded with inbreeding. Let them be given a stallion with good masculine appearance and with plenty of virility, and line-bred to a notable grandsire, or great-grandsire, or great-great-grandsire or dam, with correct breeding downwards, then they would have more pleasing results. In the selection of the animals from which they were to breed, preference should be given to the animals that gave a very good first impression. They should, in their stallions, have strength, a grand carriage, and plenty of masculine character. In their mares they wanted quality and feminine character. He would like to emphasize one thing in breeding, and that was the wisdom of keeping the horse or mare that bred well. In the North the practice was all but universal to breed from mares engaged in regular farm work. One peculiarity worth mentioning was the success that often attended the first foal of a mare freshly bought from a distance. Another peculiarity which he could not explain was that one horse should be a greater getter of colts, and another a greater getter of fillies. Individual effort in breeding was fostered most largely in two ways, (1) by shows, and (2) by breeding associations or clubs. Of shows he could not speak too highly. They had given a sort of life stimulus to breeding; they gave the opportunity for comparing and selecting, and they established a brotherhood amongst breeders. He thought the secret of feeding for successful breeding lay in allowing the animal to run rough for a time before being put to stud, and to be brought into thriving condition when brought to stud. For youngsters, an abundance of exercise and fresh air should always be given. For young horses, straw or hay chaff was of great use mixed with grain, as it kept them from bolting the food, but the quality of the fodder must be good. His experience of Clydesdale breeding has been that it was a profitable as well as a pleasant hobby. They wanted, however, more young men in it—young men of education, fellows who would lift the association with horses into higher scale. (Applause.) He was most hopeful for the future of the breed. With the excellent breeding strains now available, and with a clearer prospective of what the best type of Clydesdale was, he would say that it appeared to him no time had ever been so opportune for starting a stud.

Mr. Gray said he would start the heckling by asking Mr. Ferguson whether the best possible type of a draft horse was not obtained by a cross between a Clydesdale and a Shire.

Mr. Ferguson said, undoubtedly the Clydesdale was the best draft horse of the present day. The Clydesdale could not be improved by crossing with the Shire. His reason for saying so was that the Clydesdale had been evolved from the Shires already, and was an improvement on the Shires.

Mr. John Marr, Uppermill, said he agreed with Mr. Ferguson that no more interesting work could be taken up than that of breeding horses. On the average, he believed that the man who bred from first-class stallions out of first-class mares got the best produce. It was very important not to breed in-and-in with horses, because there was no class of stock that he knew where too much inbreeding told so much upon the size and constitution and power of the stock than in horse-breeding. They wanted, in horse-breeding, to have an animal of first-rate conformation, action and quality, and he thought they should aim always at keeping up weight and constitution. In race-horses they had a test which corrected the effects of inbreeding. That was the race-course. It was a test of endurance, constitution and stamina, which they had not got to the same extent in draft horses, because a horse might be weak

in constitution, even although he was well formed and heavy. Such a thing could not happen in the Thoroughbred. He did not say that it was not necessary to have a certain amount of line breeding, but he thoroughly agreed with Mr. Ferguson that heterogenous crossing was about the worst thing they could have.

### How Shall we Mate Our Draft Mares?

The breeding season is now approaching, and prospective breeders will necessarily soon have to decide how they shall mate their heavy mares. Of course, those who have registered mares will simply need to consider the individuality of the sires, while those whose mares are not pure-bred may be undecided as to the breed as well as the individuality of the sires to be chosen. In this respect there is great danger of very expensive mistakes being made when the subject is not well considered. One of the strongest principles of most, if not all, successful breeders, has always been "stick to type." The breeder who, either from disappointments in former efforts, desire to experiment, or other causes, decides to patronize a sire of a breed other than that which predominates in his mare, will, with few exceptions, be doomed to disappointment. Experiments in breeding animals are very expensive, and should be tried only by those of independent means, and who are breeding as a pastime rather than with a view of financial success. If the prospective dam has one or more crosses of any recognized draft breed, a first-class sire of that breed should be selected, and in such cases reasonable probability of the produce being a better individual than the dam exists, but where a sire of another breed is selected there will, in all probability, be a deterioration rather than an improvement in quality; we might say a mongrelization. If the dam have one or more crosses of Percheron blood, a sire of that breed should be chosen; if of Clydesdale or Shire, choose a sire of either of these breeds; if of Suffolk, choose a Suffolk sire, etc., etc.

Allow me to briefly review the history or ancestry of a very large percentage of the heavy mares of Ontario. About 30 years ago there were few heavy mares of any definite type, and about that time heavy stallions of different breeds were imported into Ontario. These animals represented the Clydesdale, Shire, Suffolk and Percheron. There were probably more of the last-named breed than of the others. For some reason Clydesdales and Shires, especially the former, gradually gained in favor. Suffolks and Percherons, while liberally patronized by the farmers for some years, gradually grew into disfavor, importations ceased, those in the country died or were castrated, and we may say that for the last 18 or 20 years these breeds have practically been unrepresented in the stud.

During these years there have been a great many Clydesdale and Shire stallions, and of late years no inconsiderable number of mares imported. Breeders of heavy horses have of necessity patronized these sires, and now, in most sections of the Province, it is seldom we see an animal with any pretensions to draft size and type in which the characteristics of these breeds are not well marked. The mares, with few exceptions, out of which we must produce our draft horses, have two or more crosses of Clyde or Shire. This, Mr. Editor, is a fact that cannot be denied. The intelligent breeder, who gives the subject any consideration, must arrive at the conclusion that in order to be successful in breeding operations he must continue to intensify in the offspring the type and characteristics that predominate in the dam, and that an attempt in any other direction must of necessity mongrelize the offspring and bring disappointment. It would require many generations of careful breeding to "breed out" of the progeny of these mares the characteristics they now possess, and it has yet to be shown that the crossing of heavy horses of different types will make an improvement in type and characteristics. In fact, it has been proved by actual experience, that when such crosses are made the progeny is inferior to their parents on either side. I have no fault to find with any of the breeds mentioned, either as breeds or individuals. There are excellent animals of all these and other breeds, but I object to the mixing of the breeds. The draft-horse breeders of Ontario, having for so many years been breeding to the Clydesdale and Shire, it cannot be other than a question to attempt to make a change now. If they keep on as they have been doing for a few generations more, they will have practically purified their lines of their own production, and the size, type and characteristics of their horses must of necessity be improved; while, on the other hand, if they change to another breed, these will first of all deteriorate, and we will have a class of animal with no definite character or type. "Stick to type." "WHIP."