

THE HORSE.

Economic Production of Farm Horse Power.

The University of Illinois has done a great deal of investigational work during the last seven years regarding the cost of farm operations in which the horse is a very important factor. W. F. Handschin has been in charge of this work and before the Illinois Draft Horse Breeders' Association which recently met he had the following to say regarding the draft horse on the farm:

In the economic production of farm horse-power, one of the chief factors to be considered is the securing of the lowest possible costs per unit of work done. Unit costs may be reduced mainly by the following means:

First: By so organizing the system of farming as to secure a large amount of productive horse use per year. If we assume that a horse works 10 hours per day, and that there are 300 working days in the year, we should have 3,000 horse hours per year, providing the horse were able to work 10 hours per day every working day. In actual practice, however, we find that the farm horse frequently does not work over six to eight hundred hours per year; that is, from 60 to 80 days of 10 hours each. Some farms carrying on representative types of farming are able to secure from 1,200 to 1,400 hours of labor per horse per year, that is an increase of 40 to 50 per cent. over the average secured on good farms.

One of the most fundamental factors in making possible a large use of horse labor is a good crop rotation, in which the crops selected are such as to distribute the horse labor as evenly as possible throughout the entire growing season.

It is of interest to note that as we introduce better systems of farming, both from the standpoint of maintaining fertility as well as increasing profits, the horse becomes increasingly more efficient because he can be used more hours per year on productive work. Thus every improvement in the direction of more permanent and better farming is a step in the direction of a better and more economic use of horse labor.

Second: The unit cost of horse labor may also be reduced by paying closer attention to economical feeding, shelter and management of the horses carried on the farm. Important economics, particularly in feeding, may be effected.

Third: Unit costs of horse labor may also be reduced by using brood mares to supply a considerable part of the farm power. Under this plan the number of animals carried may well be somewhat larger than where no foals are raised. This increase in numbers is justified by the fact that this plan makes possible two sources of revenue rather than one. It goes without saying that if the raising of foals is to be a factor in reducing horse costs such foals must be of the best type, otherwise, the enterprise may prove a liability rather than an asset. The question of the type of horse to be raised I shall discuss a little later.

Fourth: In reducing unit costs of horse labor, the farmer may also reduce his total carrying cost somewhat by shifting a part of his depreciation on horse equipment. Since approximately 90 per cent. of all work horses in the country are on farms, it is evident that no large amount of the depreciation can be shifted to the city user. City horses, however, wear out in from four to five years on the average, while farm horses last from eight to ten years. It is evident, therefore, that approximately 20 per cent. of the horse consumption of the country takes place in cities. Inasmuch as other factors than age contribute most to the wearing out of the horse on the city street, it will be advisable for the farmer to sell off his surplus horses which the city requires before they depreciate on his own hands. In this way 15 to 20 per cent. of the depreciation costs of all farm horses may be shifted to the city.

Fifth: In the reduction of the unit costs of horse labor, one factor which is very frequently overlooked should be given primary consideration. I refer to the question of the type of horse to be used. As a matter of fact, only a small percentage of the horses actually in use even approximate what we might call standard requirements from the standpoint of weight, conformation, speed, quality and temperament. We are discussing very much these days the question of design in farm tractors and farm machinery in general. The same question is quite as important as applied to the farm horse. In the case of the horse, however, the problem of securing the right type in any large number is a difficult, long-time proposition, even though we have many excellent examples of the right design.

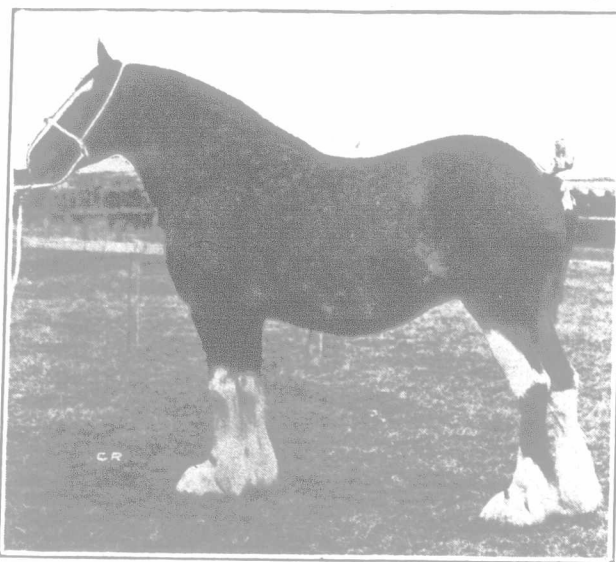
The horse which is to meet our farm requirements must have weight; first, because the unit of man labor which now goes with the unit of horse power, as well as the machinery used, is adapted to anywhere from five or six to eight or ten horses. In the case of the tractor the unit of power which goes with one man may be even larger. On the basis of our methods in modern farming and the size of the farm, the unit of horse-power must be large if it is to be best adapted to the utilization of man labor. I have already pointed out the importance of using economically, both man and horse labor.

The horse must not only have weight, but he must combine with this weight correct conformation, if we are to get the greatest amount of power for a given amount of weight. He must have the right conformation, if he is to be able to develop satisfactory speed. That is, he must be able not only to walk at a good

rate, but also to trot when necessary, regardless of whether he weighs 1,600 pounds or a ton.

The horse must have the right quality and temperament, if he is to wear and perform his work intelligently. Quality and temperament will, no doubt, also be of importance from the standpoint of developing a given amount of horse power per unit of weight.

Unfortunately we know practically nothing regarding the horse from the standpoint of his efficiency as a motor. If we are to deal intelligently with the problem of economical horse-power, whether furnished by the horse or by a machine, we must know much more about the efficiency of these various types of motors. Unquestionably, however, the horse with size, right conformation, quality and temperament—as these terms are understood at the present time—will prove to be the most economical producer of power as compared with other animals which do not meet our standard requirements. In the competition for the most economic source for farm power, the man who cannot produce a horse which meets the best requirements will play a losing game. And this is as it should be. The horse, as well as every one else, must make good on the basis of what he can deliver.



Rosalind.

Champion female Clydesdale, Kilmarnock, 1919.

LIVE STOCK.

Parting with the best females in the herd is like killing the goose that lays the golden egg.

If a cow has aborted be careful about breeding her as she may infect the bull and he spread it to clean cows.

Bovine tuberculosis exacts a heavy tax from our live-stock industry. Every effort should be made to prevent and eradicate this plague.

Canada's war record and the high-quality farm products she has been exporting to Great Britain has resulted in the British consuming public becoming eager to trade with Canada. Our part is to produce quantity so as to meet the demand.

Live-Stock Commissioner, H. S. Arkell, speaking before a few representative swine breeders contended that "the demand for Canadian bacon is so great on the British market that it is impossible to adequately supply the trade." More hogs on the Canadian farms is the solution.

If a cow does not clean properly within twenty-four hours after calving the afterbirth should be removed by an experienced person. If the smallest particle remains there is danger of blood poisoning. It is advisable to flush out the womb several times after the cow freshens.

Feeding and caring for live stock is a job calling for close observation, intelligence, initiative, carefulness, a knowledge of feeds and animal nutrition, and ability to diagnose and treat many of the minor diseases and troubles to which live stock are subject. Not every man can qualify for the position of herdsman; in fact, real good herdsmen are very scarce.

The Western Canada Live-Stock Union has been doing good work for those interested in live stock in the Western Provinces, while the Eastern breeders have been quibbling over getting a similar organization under way. There are many matters needing adjusting and the Union could be a medium through which the breeder of commercial live stock, as well as the pure-bred breeder, could look to have any injustices righted. May the Eastern Live-Stock Union be helped to fill the mission for which it was created. To do effective work the biggest men in live stock must be at the helm and give the movement loyal support. Let cliques and self be forgotten in an effort to make the Union a power of strength for the live stock industry.

Supply and Demand in the Bacon Trade.

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has her opportunity, and, if during this period, she can firmly establish herself on the British market and in the good will of the British consumer, she need have little to fear from whatever competition she has to face in the future. British trade still dearly loves to follow precedent and will be loyal to its connections. Now what of prices? I can best illustrate by the feeling that exists in London. On one occasion, officers of the British Ministry of Food said to me, "What do you think will be the price of bacon if we take off control?" They were afraid prices would mount if control were taken off and that the consumer would have to pay high. The history of the market since de-control makes it clear that their fear was not without foundation and that a general European fat and bacon shortage really exists. Further, the high prices being paid in Canada at the present time should serve as a clear indication of the opinion of the packers and as reflecting the general judgment of the trade as regards future prices and future demands.

Asked as to his opinion as to what should be done to promote confidence amongst farmers, Mr. Arkell said: "I am satisfied that one thing should be done, namely, that there should be a regular supply of information from the export market. If we can furnish for you a regular supply of information available weekly from the export market as to receipts, prices and the tone of the market itself, I think that will go a long way to promote confidence and to check the fluctuations that occur here. I think that should be done and I hope that it will be arranged. First of all I am myself instructed by the Minister to return to England, not principally for that purpose alone but with a view to organizing our work over there and I have already recommended the securing of a man, trained in the marketing of meats and produce, who will act as our agent in obtaining and transmitting just such information from the export market. This man should be competent to analyze the whole trade and report his information in a manner that will be of real service to Canadian farmers. I understand that this is done in Ireland. The Irish farmer knows almost, from day to day, what the fluctuations are in the bacon market and he calculates the value of his hogs on the price quotations for Irish bacon. If we can develop a similar system of export information, it will go a long way to establish confidence amongst our farmers."

Asked regarding the possibility of establishing a guaranteed price for hogs, Mr. Arkell went on to say: "It is impossible to guarantee prices and what is more it is unfair for the farmer to ask it. There has not been a time during the past four years that the farmers have not made money in hogs, and I am personally satisfied that the Government was justified, understanding the situation, in deliberately asking farmers to produce. We just now face the period of reconstruction and it represents a very big problem getting back to normal levels again. I think Canada is as well situated from an agricultural point of view, as most countries. I believe that our future, financially and nationally, depends, to a large extent, upon the development of our live-stock industry. It is live stock that is going to establish our future. The country is in this position. We have a big debt on our hands. To secure prosperity, Canada must discharge that debt and must develop our industries to do so. The only way to discharge that debt, to make the whole country prosperous is to develop our live-stock industry as one of our most important and promising assets. We are trying to analyze for you the situation as regards the future of this business, with the view of definitely developing an export live-stock trade. We have already attained certain results but we are only on the fringe of what is possible. Are we as Canadians simply going to sit down and lose this opportunity? Or are we willing to exert the energy required to secure what is opening up before us when we investigate market conditions and consider demands?"

I come back after having been over the whole Canadian war area from Amiens to Mons, Mons taken by the Canadians the day on which the armistice was signed. I frankly went there with the idea of being able to tell the story to our Canadian producers, to our Canadian farmers, and I could only wish that a sufficient number of them could see what I saw. A man goes through that country with his hat off. I won't say very much more. It is not in a man to describe it. Those men had a great work to do and they gave what they gave for civilization, gave it to save Canada.

Gentlemen, as I say, we too have a problem, the making of Canada, and I believe that the making of it is going to be done on the farms of Canada, perhaps more there than anywhere else. I don't believe that it is right for us to quietly sit down and let the future take care of itself. I believe that every honest Canadian is going to face the situation as a man. We have a chance to build up a big industry to develop a big export business. You say the Government should assist. Certainly the Government should give assistance and be expected to give it. But the farmers also should be asked to co-operate in this great movement and that can't be done by a willingness on their part to come in and go out at pleasure. And I believe that if the farmers of Canada are prepared to face the issue on this basis they are going to accomplish something that is worth while.

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