

The University of Minnesota  
AGRICULTURAL EXTENSION DIVISION

Special Bulletin No. 80

University Farm, St. Paul

August 1923

Published by the University of Minnesota, College of Agriculture, Extension Division, F. W. Peck, Director, and distributed in furtherance of the purposes of the co-operative agricultural extension work provided for in the Act of Congress of May 8, 1914.

THE COLT AS A PROFITABLE FARM  
PRODUCT

By W. H. Peters  
Division of Animal Husbandry

It will pay the average farmer to begin now to raise colts,  
at least enough to replace his own work horses as they  
wear out.



Fig. 1. Six-Year-Old Belgian Mare, Jupiter's Venice 6421, and Her Three Colts,  
Owned by University of Minnesota

Note the similarity between the colts and their mother, indicating the influence and therefore importance of the mare in determining the kind of colts she will produce.

## FACTS ABOUT THE HORSE INDUSTRY

1. Horse production is declining at a rapid rate throughout the world, throughout the United States, and in Minnesota.

2. The number of horses required to do the work of the country is also declining, but will probably reach a point within a very few years beyond which it will decline very slowly if at all.

3. The average type, quality, and soundness of colts produced must be improved if horses are to continue to compete successfully with mechanical power.

4. The purchasing power of horses has been and is yet at a very low point. Judging from past experience, however, it can not be long until the purchasing power of horses will start definitely upward and a period of increasing purchasing power, or value, should be experienced.

5. The two most difficult problems in horse production are securing the service of a suitable stallion and marketing the surplus horses.

6. Community production of horses offers most toward a solution of these two problems.

7. There is room for a great deal of improvement in the feeding and care of all kinds of horses, more particularly in growing colts and stallions, that would result in better, more profitable horses.

8. Community production, presenting horses for sale in a more salable condition, and self help in finding a market for surplus horses are needed to make the raising of horses more profitable.

9. In Minnesota, at least, the time is not far distant when the number of horses actually needed to do work for which they can not economically be replaced by other forms of power now available, will be as great as the number available within the state, or greater.

10. It will pay the average farmer to begin now to raise colts, at least enough to replace his own work horses as they wear out.

## INTRODUCTION

The Minnesota farmer has all but quit raising colts. He must, however, soon begin thinking about colts again. His work horses are getting old. What is going to be his policy with regard to replacing the horses or raising colts in the future? Will he try to replace the horses with mechanical power? Should he raise just enough colts on his farm to supply the power with which to operate it? Should he go into the horse business a little more extensively, raise a few more colts than he needs, and try to make a profit by selling them, or should he depend upon buying the work horses he needs in the future from some one else? These are questions that must be answered by many Minnesota farmers in the near future. How this problem will be solved must be decided by each farmer for himself. It is our belief that many will find it to their advantage to begin now to raise colts more extensively than they have been doing in the past, planning not only to raise the work horses they need, but also some colts to sell. Others will not find it profitable to raise any more colts than they need to replace their own work stock while still others will be better off not to try to raise any colts. In other words, the raising of horses in the future must be done in a very different way from that of the past if the colt is to pay the profit that he should to the man who raises him.

## STATISTICAL REVIEW

Estimates based on United States Department of Agriculture figures place the horse population of the world in 1912 at 116,500,000 head, and for 1922 at 103,550,000 head, a decrease of 12,950,000, or approximately 11 per cent. Russia, the United States, the United Kingdom, France, Germany, and Japan all show decreases, the percentage being largest in Russia.

In 1910 there were in the United States 26,756,750 horses and mules. In 1920 there were 27,283,413. Thus there was actually an increase in the decade. It is also probably true that a larger percentage of the horses were at work in 1920 than in 1910, because a much larger percentage of horses were more than four years old in 1920 than in 1910. Dividing the horse population into two groups, those "in cities" and those "on farms," we find that in 1910 there were 3,435,900 horses and mules, or 16 per cent of the total, in cities; while in 1920 there were 2,083,861, or 8 per cent of the total, in cities. The apparent decrease has simply been a change in proportion between city and farm horses. On the other hand, it is very well known that the number of colts foaled and raised each year since 1917 has decreased

steadily and rapidly, so that for the last several years the number has been less than the number of old horses that have died.

The horse situation in Minnesota is and has been quite similar to that in the United States as a whole. In 1910 there were 829,006 horses and mules in the state, with 84,771, or 12 per cent, in the cities; while in 1920 there were 1,001,084 with 58,052, or approximately 6 per cent, in the cities. In 1910 there were standing for public service in Minnesota 3541 stallions, in 1920 there were 2515, and in 1922 there were 2087. It is estimated that there were raised in Minnesota in 1910, 63,069 colts, in 1920, 36,587; and in 1922 approximately 20,000. There has been a decrease in the number of horses and mules on hand since 1920 and there will be a still further decrease in the coming two or three years.

### PURCHASING POWER OF HORSES

In considering whether the price of horses is high or low, one must consider the relation of horse prices to the general price level. In January, 1920, the average price of horses in the United States was \$94.39 compared to an average price for 1909-14 of \$109.10. In 1920, prices in general were 253 per cent of the average 1909-14 level, so that the money received from the sale of a horse would purchase only about 34 per cent as much goods in general as it would from 1910 to 1914. On the other hand, in 1897 horses in the United States were worth on the average only \$31.51, but that sum of money would have bought more goods than could be obtained by the sale of an average horse in 1920 for \$94.39, so that horses were really higher, compared to prices in general, in 1897 than in 1920.

Figure 2 shows the price of horses, based on their purchasing power, since 1868. It will be noted that there have been only two years when the purchasing power of horses has been more than 100 per cent. This is because the five pre-war years (used as a basis) were the years when horses had the highest purchasing power of any time in 55 years. The chart shows that the purchasing power of horses declined from 1911 to 1920. Since 1920 there has been a slight net increase in purchasing power, but up to January 1, 1923, it could not be said that the trend is definitely upward. It is likely that if only good young draft horses were considered, their purchasing power would not have declined in 1921 and 1922, as the unusually large proportion of old horses has doubtless tended to depress the average price of farm horses as quoted by the United States Department of Agriculture.

The usual thing in any line of business is that periods of low purchasing power are followed by periods of high purchasing power. The length of time between these periods is determined largely by the time

# PURCHASING POWER OF HORSES FOR 55 YEARS

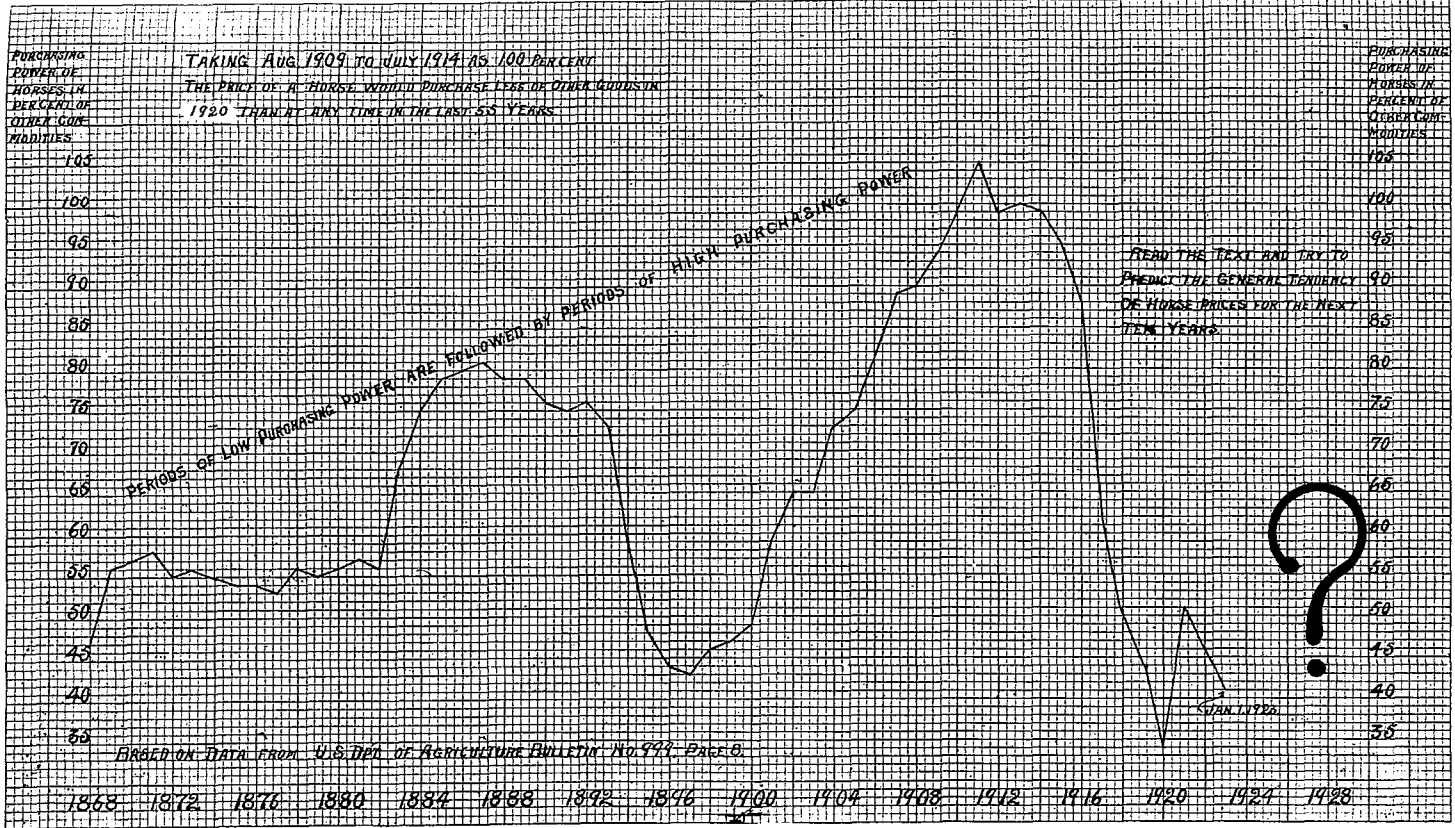


Fig. 2. Purchasing Power of Horses

required to change the supply. Thus, when potatoes are high in price, it may happen that next year the crop will be large and potatoes low in price. However, if there is an over-supply of horses and farmers curtail breeding operations, the supply of work horses is not affected for four or five years, and judging from the chart it is ten years or more before the restricted breeding operations have their full effect in raising the prices. During the period of high prices, breeding operations are increased and the process is repeated. Those who have courage to stay with any line of business when it is depressed are usually able to benefit by the high-price periods.

### HORSE RAISING IN THE PAST

Before the advent of the automobile, the truck, and the small tractor, no farm enterprise was more certain to yield a profit than the raising of colts. A constantly increasing number of horses was required annually to meet the constantly increasing amount of work to be done. As a result, the raising of one or more colts each year became an almost universal custom on every farm. Any kind of horse could be sold at a profit. The result of this condition was that any kind of mare was considered a satisfactory brood mare, and any kind of stallion a satisfactory sire. On many farms no particular attention was given to the feeding or care of the colts. They just grew up. Yet under these conditions every spring the horse buyers would be on hand to take away the surplus at prices that were profitable. Needless to say this condition led to the production of many horses of mixed breeding and nondescript type and with many unsoundnesses. This was the condition of the horse business down to the year 1910. Then came very rapidly in succession the automobile, the truck, and the small tractor. The horse encountered keen competition for the first time in his history. This competition was too keen to be met by any except those few horses that were valuable principally because of their ability to afford pleasure to mankind, and by those that because of their suitable conformation and weight were able to do heavy work efficiently. Thousands of horses were replaced annually by horseless vehicles.

The effect in the country was that the horse buyer either quit coming around or if he did come, he offered lower prices and was very discriminating in selecting the horses. Even in the face of this, the custom of raising colts had become so permanently a fixed custom that farmers were very slow to quit, and not until 1917 did horse production begin to decline rapidly. It has been declining rapidly ever since and has now reached the point where old horses are dying off much more rapidly than colts are coming on to take their places.

However, prices have not yet advanced sufficiently to stimulate increased production, altho many farmers have sensed the situation and are beginning to think about the horse supply of the future.

## TWO IMPORTANT PRESENT DAY PROBLEMS IN HORSE RAISING

One factor concerning the horse has certainly been definitely settled as a result of his competition with mechanical power—the importance of type and quality in the horse himself as it will affect future horse raising. With the exception of a few trotting and saddle horses for which there will probably be a demand for racing and pleasure riding, the demand in the future will center on the purebred or grade horse of draft breeding, with size and quality to make him suitable for drawing heavy loads in the city or heavy field machinery on the farm. Never again will it be profitable to breed any kind of mare to any kind of stallion and wait for the horse buyer to come around to buy the colt. He will never come. Farmers quite generally realize this fact, and find that herein lies the first of the two most difficult problems in horse breeding at the present time—the difficulty experienced by farmers in getting their mares bred to a draft stallion good enough to sire colts that it will pay to raise.

The discontinuance of the raising of colts so generally during the last six or eight years has been very discouraging to the stallion owner. Many former stallion owners have disposed of their horses, and old stallions that have died have not been replaced. Good draft stallions are now so few and so widely scattered throughout the state that in many localities there is not one available that is good enough to sire colts for which there will be a market demand when they mature, or even colts that will make suitable farm work horses.

The second important problem is the difficulty that is being experienced by farmers in selling or marketing what few good horses they have. The few good ones are widely scattered and it is very difficult and expensive for a horse buyer to hunt them up, get a carload together, and ship them to a market. As a result, for several years horse buyers have been going only into those sections where horse raising has been continued actively.

## COMMUNITY PRODUCTION

In looking for a solution of these two difficult problems in horse raising for the future, it seems that what may be termed community production or community breeding comes nearer to offering the solution to both problems than any other suggestion that has been made. By

community production is meant simply the extensive production of horses of one breed or of one type in a community. Community production will be required because, except in a few rare instances, it will not be possible for any one farmer to raise horses enough on his own farm to make it pay him to keep an outstanding good sire, or to raise enough horses to attract the best buyers to his farm. Ever since horses have been raised under domestication, horse raising has been most successful when only a comparatively few brood mares were kept on one farm and the mares were worked or kept well exercised and handled in such a way that both mare and foal could be given sufficient individual attention. Losses from abortion in mares or joint ill in colts seem to increase when a large number of mares are in one band. Production costs are also very

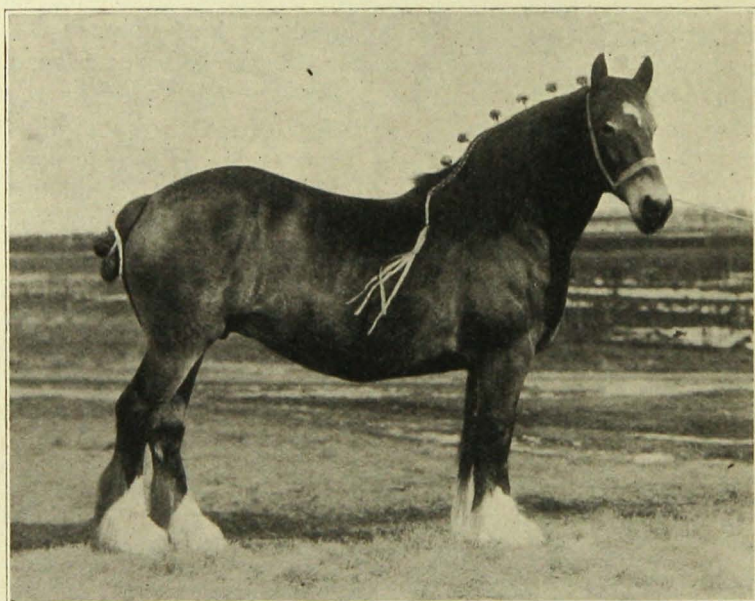


Fig. 3. Clydesdale Mare, Queen Lillie 10634. Owned by University of Minnesota  
This mare produced colts regularly until 18 years old.

high when a mare is kept idle the year round and does nothing but raise a colt. For one reason or another, usually from 10 to 30 per cent of the mares will not get in foal. If there is no work for these mares, carrying them becomes expensive; while if there is work for them, they can be used for heavy work thereby relieving those that are raising colts and giving them a chance to do better by their colts. This does not mean that no farmer can succeed in raising



horses on a large scale, but it does mean that those who will succeed are few, and only when all conditions are favorable to success is a farmer justified in trying to raise colts in large numbers. There is a vast difference between extensive horse raising on a single farm and extensive horse raising in a community, and while the odds are against the former, they are greatly in favor of the latter, especially if general diversified crop production is practiced. After that, whether or not any farmer can succeed in raising colts depends principally on himself. If one looks upon a horse entirely as he would a machine, of value only for the work he can get out of it,

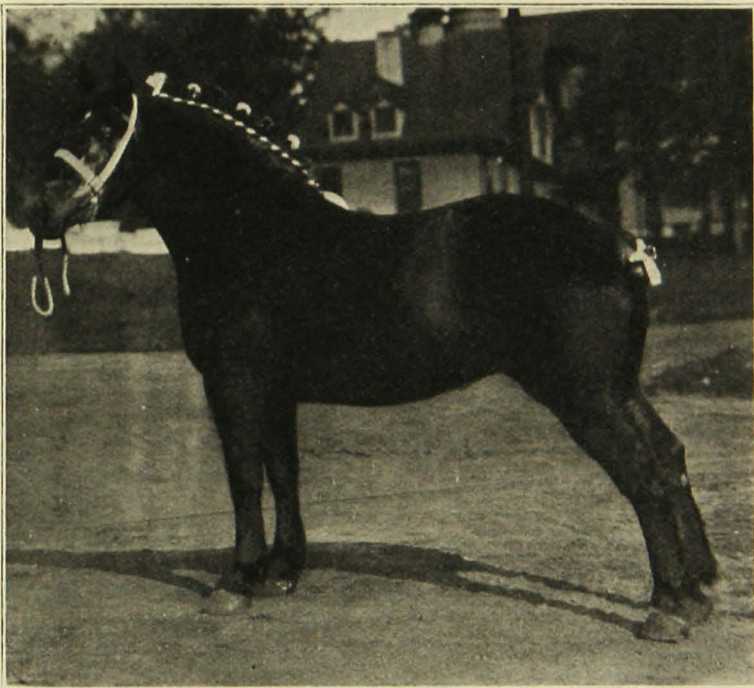


Fig. 4. Three-Year-Old Percheron Mare, Maple Grove Hazel 158611, Owned by University of Minnesota

Note muscular, massive draft conformation

then he had better not try to raise colts. If on the other hand he has a liking for horses, if he enjoys caring for a brood mare and her foal, if he enjoys seeing good colts growing up on his farm, and if he appreciates the advertising value of having good horses on his farm and of doing his work with good horses, he should succeed in raising colts. If he is to raise good colts of a desired type, however, the service of a good stallion of the desired type must be

available. Unless some neighbor is already keeping a good stallion about the only way he can secure the service of one is either to buy and keep a good one himself or get some neighbor to do so. Right here is where extensive community production is of great importance. A survey of the stallion business in Minnesota conducted by the Minnesota Horse Breeders' Association in 1922 shows that very few of the 2000 stallions standing for public service within the state during that year returned a profit to their owners when service fees alone are considered. This survey also shows very plainly that the best stallions and those for which the highest fees were charged received the most patronage. The breeding of mares, however, was so scattered that only a very few horses bred more than half as many mares as they might have. Considering investment, feed, labor, insurance, and depreciation in value, there is no profit in standing a horse for public service unless at least forty service fees of \$20 each can be collected. As horse breeding is now conducted in nearly every community in Minnesota, there is little encouragement to any one to own and stand a good stallion, or a stallion of any other kind for that matter, for public service.

The first step necessary to make horse breeding either successful or profitable in any community is to make the owning and standing for service of a high-class stallion profitable. This can be done only through the breeding of enough mares at a service fee high enough to give the stallion owner a profit on his enterprise. To bring about this condition some one must take the leadership and take the trouble to make the situation clear to all who have suitable mares within a radius accessible to the same horse. One who already owns a good horse is the logical leader in such an enterprise.

If there is no good stallion in a community, horse breeding can not become successful and profitable until some wide-awake business-like man sees to it that a good horse is brought into the community.

If the extensive raising of good colts can once be established, that community is likely always to raise horses extensively.

It will be interesting to note just here how progress has been made in those comparatively few communities in the United States where community horse breeding can correctly be said to have been followed. (1) Better stallions have been used because it paid stallion owners to keep good stallions, in fact in such communities none but the best stallions would be patronized. (2) There has been an enthusiastic interest in raising horses. Farmers have taken pride in giving their colts better care and feed in an effort to produce the best horses in the community.

With no particular effort on their part these communities have become known in the big horse buying markets, and buyers have been visiting them even through the recent years of depression, and buying horses at the highest prices paid anywhere in the country. Horse buyers have found that it is difficult and expensive to gather together a carload of horses in a community where only a few horses widely scattered are for sale.

As horses of similar type and quality sell for about the same price to the man who is going to use them, the purchase price the dealer can pay at the point of production must be based on the price at the market minus the cost of getting the horse to the market. The greater this cost the smaller must be the price paid to the producer.

On the other hand, if a buyer can go into a community in which there are a large number of horses of the type he wants, he can inspect a large number in a short time at small expense. He can usually secure matched teams or even a carload of horses of uniform type and color. He can also usually get better horses, and the result is that he can and does pay much higher prices for them.

It is an easy matter to observe all these advantages of community horse production by simply spending a day or two in a community where such production has developed. It is more difficult, however, to go into a neighborhood where community production has not developed and start it.

### ORGANIZATION OF A COMMUNITY FOR EXTENSIVE HORSE PRODUCTION

The leading horse producing communities of the country are not the result of organized effort, but are almost invariably the result of the leadership of one enthusiastic horse breeder or dealer who has had the foresight and the ability to lead his neighbors into community production without their knowing it, by putting at the service of the community one or more good stallions, by constantly encouraging the use of better mares, the practice of better feeding, the exhibiting of horses at fairs, and has helped his neighbors to sell their surplus horses or has dealt fairly with them in buying horses from them and passing them on to market.

It is true that state and county horse breeders' associations have been quite generally organized throughout the horse producing section of the United States. These associations have been more or less active and efficient in encouraging the breeding of purebred horses and in securing stallion enrollment laws in most of the states.

They have not, however, been active in reaching every farmer in any given community or in marketing work horses from any given community.

It is organization within a small community that is most needed now. Such organizations can be led only by a local man or the same purpose can be accomplished without organization by the leadership of a local man. The stallion owner, especially if he owns a good stallion and several mares, is the logical man to assume such leadership.

In communities where there is any interest in horse raising it should not be difficult to make the raising of colts profitable if some one will spend a little time and effort in pointing out the advantages and possibilities of community production.

## FEEDING AND CARE OF HORSES

### Feeding the Work Horse

Feeding the work horse is not difficult, yet it frequently is improperly done. The average work horse requires about  $1\frac{1}{4}$  pounds of good bright clean hay and  $1\frac{1}{3}$  pounds of good sound grain per 100 pounds live weight per day, when at hard work. In selecting the feeds quite a wide range is permissible, tho clear timothy, timothy and clover mixed, or upland prairie hay is recommended. A considerable range in the grains to be fed is also permissible, tho oats fed alone, or corn, barley, and bran fed in mixtures with or without oats, is recommended. A hay ration composed entirely of clover or of alfalfa is not recommended, because these feeds are too softening to the muscles and too laxative. More than 20 per cent of bran in the ration is to be avoided for the same reason. Feeding the grain in three equal feeds per day and the hay principally at night, is recommended. No preparation need be given the hay or grains if those mentioned are used.

Regularity in watering three times a day, preferably before feeding grain, and in supplying salt, is important.

Many common ailments of work horses, as founder, colic, and azoturia, can largely be prevented if the feeder will but realize that the body and digestive system of a horse at regular work operate much the same as a steam engine. While running, the engine burns a great deal of fuel which generates power. So long as the engine continues to operate it requires a steady supply of fuel. Suppose you stop the engine but keep right on piling in the same steady fuel supply. If some safety device is not provided for the escape of the surplus steam thus produced, the engine will soon blow up. Likewise, if you tie a work horse in the barn and keep right on feeding

him the heavy ration he has been receiving at hard work, something is very likely to go wrong. Managers of large stables of work horses in cities have learned this lesson and invariably it is recognized that a safety device is just as necessary for the horse as for the engine. This safety device is provided by cutting down the feed about one-third, even when he is only idle for one day. A cooling, laxative feed, bran mash or boiled grain, is also supplied as one feed on the day the horse is idle. On the farm the safety device can most easily and satisfactorily be provided by turning the horse out into a lot or pasture where he can exercise.

### **Feeding the Idle Work Horse in Winter**

As part of the work horses on the farm are usually idle in winter, the problem of feeding them economically is important. For such horses cheaper, coarser roughages, as straw, cornfodder, a good sound quality of corn silage, or the poorer quality of hay can be extensively used and much less grain is required. When low-grade roughage is used it is necessary to feed about half a pound of grain per 100 pounds live weight per day if the horses are to be brought through the winter in condition to stand up under the heavy spring work. Allowing such idle horses to run outdoors the greater part of the day and keeping their feet well trimmed will help very much to bring them into the spring months with firm flesh and sound feet, free from lameness.

### **Feeding the Growing Colt**

The average Minnesota farmer does not have much trouble in feeding his work horses. He does, however, find the feeding of his growing colts so that they will develop the size, conformation, and soundness desired a more difficult problem. One of the points in which the farmer has probably been most lax in developing colts has no doubt been that in the winter they are fed and handled the same as idle work horses. For exercise this is all right, but they require not only a liberal feed of good hay at night, but also a liberal feed of good grain both night and morning.

The colt will get along best for about the first four weeks on nothing but the mother's milk. When four weeks old he will begin nosing into his mother's feed box and hay manger, and as soon as he learns to eat a little with her, he should have a grain box and hay manger of his own where he can be fed a little oats and bran and a little good hay, preferably clover or alfalfa. If the mare is to be worked, this grain and hay for the colt should be continued throughout the summer. The colt should be left in the box stall in

the barn while the mare is out working. If there are several colts they should have the run of a barn lot with a good woven wire or board fence around it through the day. If they have feed before them, and a darkened place where they can be away from the heat and flies in summer, they will soon become accustomed to their mother's absence and will not fret except for a few minutes after her departure and again at the time for her return. In handling mares and foals in this way it is advisable for the teamster to bring the mares to the barn for the colts to nurse in the middle of the morning and the middle of the afternoon if this is not too inconvenient, and if it is, the mare's udder should be partially milked out at those times. Either practice will help to maintain a larger milk flow through the nursing period.

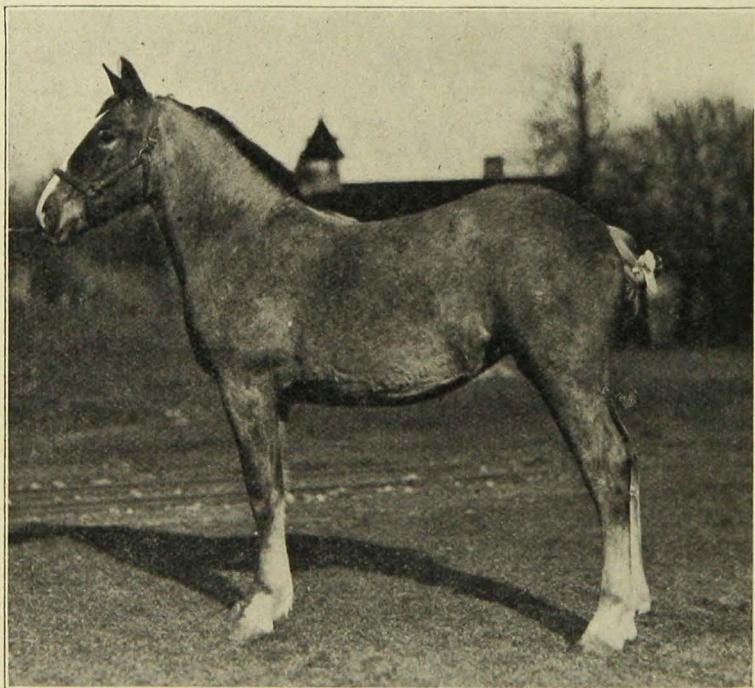


Fig. 5. Eight-Months-Old Draft Foal, Owned by University of Minnesota

Note growth and quality accomplished by good breeding, liberal feeding, and an abundance of exercise.

If the mare is not needed through the spring months, there is no better place for mare and foal than on a good pasture, and while there they will not require any additional feed.

Colts may be most successfully weaned when 5 or  $5\frac{1}{2}$  months old. Weaning is most successful when the colt is taught to eat

grain before being taken away from his mother, and he should be fed liberally on grain at this time. It is a poor policy to wean a colt in the early fall and then turn him into a bare pasture with no other feed, as is sometimes done. A colt handled in that way will lose flesh in even two weeks, and it will be hard to put this flesh on him again. Liberal grain feeding as well as a liberal allowance of good hay is essential to the successful wintering of a weanling colt during his first winter. The colt should have all the hay he will clean up and a grain ration of at least 1 pound per 100 pounds live weight per day. Big growthy colts will eat  $1\frac{1}{4}$  pounds per 100 pounds live weight per day and will be better for it. In practicing this liberal feeding the colt must be turned out every day and given a chance to exercise, and his feet will need to be trimmed probably every six weeks or two months to keep them in shape and growing properly. Through his second summer a good

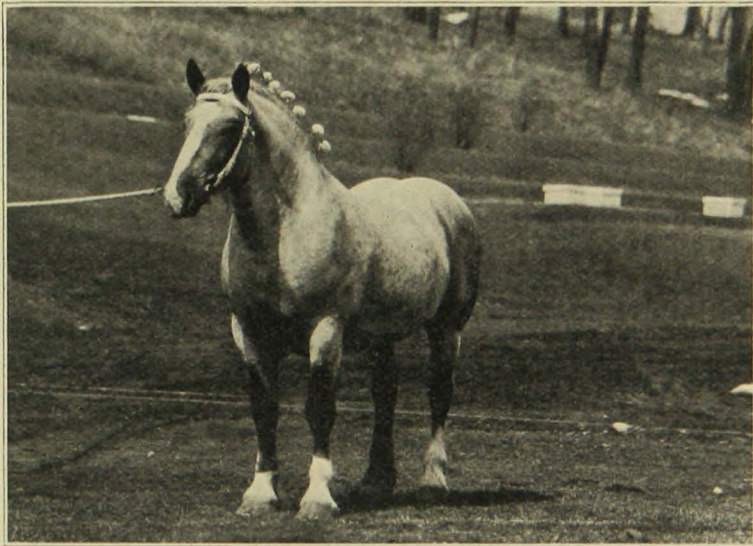


Fig. 6. Three-Year-Old Belgian Stallion, Farceur's King 12477, Owned by University of Minnesota

Note massive conformation, heavy boned but clean cut appearance of limbs, and bold masculine appearance of head.

pasture is the proper place for him and so long as the pasture is good he needs no other feed. A colt is often given a severe check in growth during the latter part of the second summer because of being on bare pastures without supplementary feeds. He should be watched closely, beginning about August 1, and if not doing well the pasture should be supplemented with hay and

about one feed of grain per day, because he is still growing rapidly. This should be continued through the fall and winter. If he gets this liberal supply of feed at that time, by spring he can go on pasture again and will come into the fall of his third year, when he is  $2\frac{1}{2}$  years old, as a nearly full-grown horse. He can then be fed during the third winter much as the idle work horses are fed and by spring, when he is three years old, may be broken to work and will do a pretty good season of farm work with no injury to him and no stunting of his growth, because his entire growth will practically have been made before that time. Colts that have been grown and handled in this way can be worked with greater success as three-year-olds than can colts that have been poorly fed and stunted as four-year-olds. Also colts that have been well developed in this way can be sold more readily and for a good deal more money as four-year-olds than poorly fed stunted colts will bring as five- or six-year-olds.

### Care and Feeding of the Stallion

A good deal has been said in this bulletin about the problem of the stallion owner in making the keeping of a stallion pay a profit. A good deal has also been said about the problem of the mare owner in getting his mares bred to a good stallion. Both these problems can be solved to a large extent by the stallion owner if he will make sure to get a good suitable stallion to start with and then make sure to "keep him good," or in other words care for him in such a way that his appearance and condition will be a standing advertisement for him. The stallion requires first and foremost a liberal allowance of exercise throughout the year. This can best be secured by having an exercising yard connected directly with an outside door to his box stall, so that throughout the year he may have the free run of both the box stall and the yard. This yard may be fenced with a high board fence or a high strong woven wire fence. Another larger pasture lot in which preferably good bluegrass is growing will be of great value as a run for the stallion from the close of the breeding season until winter. If a stallion can have grass as his principal feed during this period of the year, it will be much easier to feed him and keep his skin, hair, feet, and legs in condition during the remainder of the year.

In feeding a stallion the aim should be to use feeds of medium bulk and weight, as the appetite of the horse can thus be kept satisfied without making him too fat. Good, bright, clean feeds should



always be used. For summer and during the breeding season nothing can be used that will excel clover and timothy mixed, as roughage, and whole oats or rolled oats with about 15 per cent of wheat bran added, as the grain part of the feed. In winter and during the rest of the year, some corn, a little more bran, or some barley may be used in place of part of the oats; and some oat straw, prairie hay, clear clover, or alfalfa in place of the timothy, or timothy and clover mixed. A constant supply of salt and regularity in watering are essential. The amount of hay and grain and the proportion of hay to grain must be regulated according to the size of the horse, season of the year, quality of feeds, and condition of the horse. Ordinarily during the breeding season an average 2000-pound stallion will require from 20 to 24 pounds of hay and 18 to 20 of grain per day. At other times the grain allowance can be reduced to 12 pounds per day and the hay increased proportionately.

One of the most important essentials in the care of a stallion is keeping his feet and legs in shape. This duty is often neglected to the great discomfort of the horse, frequently causing lameness and even the unnatural development of unsoundness in the horse. The reason for neglect of the feet is no doubt that the average man hesitates to tackle the job of lifting the foot of a stallion off the ground and trimming it. However, this is no excuse for neglecting it, and neglecting to do it when needed or neglecting to have the horse shod when necessary is inexcusable, and will soon prove expensive, for nothing will discredit a stallion more quickly in the eyes of mare owners than poorly shaped, neglected feet. If the owner can not trim the horse's feet himself he can at least have the blacksmith or horseshoer do it.

All that is necessary is to keep the outside walls trimmed back about even with the sole of the foot, and the heels low enough and the toe long enough to hold the natural slope of the pastern and keep the foot squarely and evenly on the ground. A pair of horseshoer's hoof pinchers, a hoof or farrier's knife, and a hoof or farrier's rasp are all the tools necessary. Horses that are inclined to be nervous or unruly can usually be brought to time by a twitch on the nose or ear.

### Preparing Horses for Market and Selling Them

As already mentioned, one of the two greatest problems with which the farmer is confronted in the profitable production of horses is the selling of the surplus colts produced. As a matter of fact, there is no definite, fixed method of putting horses on the market. There are very few horse markets in the country to which a carload

of horses can be consigned to be sold on commission, and even on these markets only during the seasons of heavy buying in the spring and in the fall is it advisable for the farmer to take the risk of shipping a carload of horses to any market on consignment without first at least getting the advice of the sales agency or commission firm to which they are to be consigned. Throughout the United States the almost universal plan of marketing work horses has been to wait until some horse buyer came around and offered a price. As already mentioned, this type of horse buyer has not been coming around very frequently of late years. When the demand for horses actually needed for replacement becomes acute in cities or in localities where horses are not generally produced, as it is bound to do at some time in the near future, the horse buyer may come around again, and this may be the best solution of the problem. In the meantime, it is our opinion that farmers may well begin to sell their horses themselves, and to include the selling of horses as one of the co-operative enterprises in the community. We would suggest as a starting point that a meeting be called of all men in the community who have surplus work horses to sell, and that some one be delegated to look into the possibility of getting a buyer to come to the community to look over the horses. It may even be advisable to send a co-operative shipment to some market. This has already been done with a fair degree of success. From this kind of beginning there is reason to believe that a state or national horse marketing method might be developed that would at least be an improvement over the past policy of each individual farmer waiting for the horse buyer to come to his farm, especially when he doesn't come, as has been the case for several years.

This does not mean that any effort along this line could change an unprofitable horse industry into a profitable one, but that it could help a little in finding buyers, reducing actual marketing costs, and possibly in gaining the confidence of purchasers by making horses available to the purchaser in more desirable condition.

One of the legitimate complaints of horse buyers in recent years is that farmers are inclined to offer horses for sale in too thin condition, with coats of long hair, not sufficiently well broken, and with neglected feet. The buyer of such a horse must take from six to twelve months to get him fleshed up, properly trained to work, and his feet in shape. The buyer must therefore pay a much lower price for such a horse than he could and would pay for a fleshy, short-haired horse with a good set of feet, and ready to start right in to regular work and stand up under it. The average purchaser of

work horses wants one between 5 and 8 years old, sound, in good health, and ready to go to work, and it is a discouraging proposition to try to sell any other kind.

### WHEN WILL THE RAISING OF COLTS AGAIN BECOME PROFITABLE?

It has been intimated that in our opinion there is yet hope of a return to prosperity in the horse industry. The one big question in the mind of the farmer who has been interested in horse raising in the past is, "When is this return to prosperity coming?"

Many persons have tried to prophesy that time in the last five or six years. It has already been demonstrated that many of the dates prophesied were premature. We confess right here that we do not know when it is coming, and were we to set an exact date as to when we believe prosperity will again smile upon the horse industry we would probably be wrong just as others have been.



Fig 7. A desirable kind of farm power

A few things, however, are very much in evidence: (1) There have been, during the last ten years, more horses in the country than were needed, and there still are a few more than are actually needed. (2) The raising of colts has been decidedly on the decline for the last three years so that old horses have been dying off faster than young ones become available. This is actually decreasing the total number of horses in the country, and will have much to do in speeding up the return to prosperity in the industry. (3) The other factor of importance in the return to prosperity is the extent to which horses that die off will be replaced by some other form of power.

This procedure has been going on since about 1913 at a rate that kept just a little in advance of the decline in horse production. The perplexing problem in this connection is when this replacement is going to reach its maximum possible development, or in other words, when the minimum number of horses required annually by the country will be reached. In the opinion of the writer, this time has not yet been reached; or, in other words, there will be a still further decrease in the number of horses used in the cities and there will be also some further replacement of the horses used on the farms, for road work or in hauling produce to market. The total number of horses now used in the cities and for the farm hauling, however, is not large, and even tho the horses now used for those two purposes should be replaced entirely, the present rate of decrease in production will soon put the number of horses available at or below the number required to do only the field work on the farm. (4) While it is possible it is not probable that all the horses now used in cities and for farm hauling will be displaced. It is also true that farmers generally are showing an inclination to halt the replacement of horses with tractors for field work and to continue to use horses instead. (5) It looks as tho production and demand must at least equalize very soon and it is more probable that production will fall below demand until it is stimulated to increase again by higher prices. All of which means that we still do not feel competent to say just when higher prices for horses will arrive, but judging by the high percentage of horses more than 10 years old now in the state of Minnesota, as compared to the small percentage under 5 years old, that farmer will be wise who begins to figure a little as to where his work horses are coming from in the future and what they will cost if he does not raise them; or, putting it more plainly, the time has arrived when the farmer will at least find it profitable to begin raising the colts he will soon need to replace the old horses on his farm and should he raise one or two more than he needs of clean quality, good, sound, 1500- to 1800-pound horses of draft type, they will be readily salable at a profitable price by the time they reach a salable age.