LESSONS IN ANIMAL HUSBANDRY  I.

Horses and Cattle

PLUMB

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How to Judge Horses and Cattle
AN AGRICULTURAL READER

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How to Know a Horse

One Saturday afternoon Bill Wilson sauntered up to Johnson’s livery and took the only vacant seat left by the front door. After making a few comments about the weather, the hay crop, and a few other things, he remarked, “I understand that Jim Fernow is trying to get his men folks to buy some big mares,—French horses, I reckon they call ‘em. Since Jim took that short course up at the Agricultural College, he’s been wanting some big horses on the farm. He says they’re the kind to turn off work. Besides, he says they are the only horses the markets want many of any more. He’s talked so strong he’s got the old man, Fred and Sam, and the Dudley and Ebro boys interested, and they’re all going up to the College next week to look at horses and get some pointers. I tell you, Jim’s all right!”

This surely was news of interest. It happened that the previous summer Jim Fernow had got hold of a circular about the State Agricultural College, which so interested him that the next winter he put the necessary $60 into his pocket, and entered the eight-week winter course. He was a bright fellow, and as he attended strictly to business, he became keenly interested in his studies and was especially attracted to the live stock work. It was not long before he concluded that he
lived in a region where the farmers were a generation behind the times. He learned that there was not half the live stock in his native locality that there had been fifty years ago, and that the small, underfed horses with which he was so familiar sold for the least money. So, upon his return home, he, the only boy in the neighborhood who had ever attended an agricultural college, began to preach better agriculture. Many of the men in and about the little town where Johnson's livery was located rather prided themselves on their knowledge of live stock, and of horses in particular. The few good horses found there were light of build, though muscular. Jim came back after his term at the Agricultural College with a new vision of the possibilities on the home farm and a desire to improve existing conditions.

"Let's have more and better live stock," he said, "then we will have richer soil and better crops and will get more for our stock." He persuaded his father to buy some Percheron mares, even though they were high-priced. In France, where these horses were first developed, the country was almost as hilly as around his home in Southern Ohio. While in college, he had heard something about community breeding and how much it had meant to the farmers of Denmark, England, and a few localities in America. He learned that where many farmers kept one sort of live stock, there were always more good animals to be found, the locality became more widely known, and buyers increased in number. Jim felt sure that if he and his father got a good start with Percherons, others would take them up, and community breeding would develop.

This explains the appearance at the Agricultural College of the Fernow men and two of the neighbor boys, one beautiful October day. There were two places that Jim wished especially to visit, the Judging Pavilion and the Horse Building. At the Pavilion he found the man he wanted to see,—a teacher in the Department, who was a horse specialist, and with whom he had become quite well acquainted during his winter's stay as a student. Introductions over, Jim explained the purpose of their trip. He wanted his people to see some first-class horses, especially draft ones, and hoped that the instructor could show them some of the University stock. He also suggested that the differences in horses and in values be explained. This naturally required a trip to the stables and lots near by. A few students gathered around the party at the barn.

"We have two common types of horses which are of interest to farmers," said the instructor, "the driving horse we are all so well acquainted with, and the larger, heavier, slower draft horse. Owing to the popularity
of the automobile, the demand for the driving horse has fallen off greatly. It now looks as though the use of the horse for pleasure driving, or even for light delivery purposes, is going to be greatly reduced in the future. It is interesting to note, however, that the large, powerful horse for draft, like this mare, was never more in demand. The fact is, the farmer needs just such a horse for farm work, while in the big cities there is a constant call for large horses for heavy draft work.”

“What do you call a draft horse, Professor?” said Mr. Fernow.

“A draft horse is large, or as we often say, massive, that is, he has great weight in compact form. He ought to stand about 16½ hands high, and weigh 1600 pounds or more,—in fact, weight adds much to his value.”

“What do you mean by a ‘hand?’” inquired young Sim Dudley.

“A ‘hand’ represents the space of four inches, and horsemen always speak of the height of a horse in hands. Miller, get the measuring stick and measure this horse to show how it is done. You will notice this short arm that slides up and down the long rod, at right angles. The rod is placed in a vertical position with one end on the ground close to the back of the front foot, while the short arm just touches a place where the neck joins the body, called the withers. You will note that this animal measures 17 hands,—a very good height for a mare like this one.”

“Can a draft horse be too big?” inquired Mr. Fernow. “You know we live down in the hills, and we don’t want to make any mistake when we buy.”

“Yes, a draft horse might be too large for certain farms where the land is rather rough, but such is not likely to be the case in Ohio. However, if medium-sized draft mares weighing around 1600 pounds are selected, there should be no trouble. The Clydesdale in Scotland, and the Percheron in France, are produced among the hills, though these are not very rough, it is true. Of course, the lighter weight drafters are often more active on foot than the heavier sort, yet if one wishes to feed or breed draft horses for the market, he will get more...
money for the large than for the small ones. It has often been claimed that for each pound added to the weight of a horse over 1400 pounds a man can obtain 25 cents, a very good return on the investment. In Northern Ohio many men make a business of buying thin draft horses and fattening them. A higher price is received for gains in the weight of draft horses than for other fattened stock."

"Suppose we should buy a pair of draft mares, what would you advise us to be most careful about in making the selection?" said Mr. Fernow.

"Of course," was the reply to the inquiry, "one must consider various things in buying any horse if he is to get a desirable one, yet naturally there are some things of very great importance. There is an old saying, 'No foot, no horse,' and the wise horseman always makes a careful examination of the feet and legs. The foot should be large and round, wide at the back or heel, and should have a good-sized frog, which just barely touches the ground when the horse is standing. The frog is this V-shaped part," he said, lifting up the foot, "and it acts as a sort of buffer. While the outside of this hoof looks very hard and bony, the interior is in part very delicate, and when inflamed causes the horse much pain. If you see a horse standing with a forefoot stretched forward, you may know that he is suffering pain, and the chances are he will get no permanent relief. The horse that is kept on a farm never suffers from his feet as do those used on city streets. The hard blows on the pavements cause much trouble to the feet of the draft horse. Heavy horses suffer most from injury to the front feet. One especial trouble, called side bones, is often found just above the top of the hoof on the outside rear part. Side bones are bony deposits caused by the hard blows of the feet on the pavements.

"If I were to select a draft horse, I should want him to have a powerful set of legs which were well placed. Suppose we look at this mare's shoulders, which are really related to the feet in an important way. This cane shows the slope of her shoulders. It is commonly understood that when the shoulders are long and incline well into the back, the motion is smoother and stronger than if the shoulders are rather short and upright. This latter condition gives a hard, short, stubby gait. The slope of degrees, as shown by my cane, is about right. Now just above the feet, you note that the leg has a short inclined part, which connects the foot and the ankle. This part we call the pastern. This also should have a good slope, much like the shoulder. If the pastern is fairly long and springy, and the shoulder is well placed, you are almost sure to have an easy moving, active horse. Draft horses naturally have shorter pasterns than light horses—at least they appear so—and handle their feet in heavier style. One does not look for much speed in a drafter, but the walk should be active and true. The upper part of the leg should be large and muscular while the lower part should be free from all extra flesh, and should show a hard, clean bone.

"There is one place on the draft horse's legs that should be looked after carefully. This big joint of the hind leg, half way between the body and ground, we call the hock. This is an important joint, and should always
be free from extra flesh and swellings of any kind. One is quite likely to find this part swelled or thick, where heavily-fed horses are kept in stables and given little exercise. Then disease occurs, and the joint leaks and forms a puff, or bog spavin, or perhaps a bony deposit takes place, forming a bone spavin. We recently found an interesting case of this sort in a large city stable. I happen to have with me the photograph which we took at the time. Notice the big swelling inside the right hock. That is a bog spavin, and while you cannot see it, there is a bone spavin on the same leg and one also soon its mate. Those spavins produce a very stiff and painful movement.

"I have noticed some difference in the position of the legs of horses," said Fred Fernow. "How would you prefer to have them placed when either at rest or in motion?"

"In the correct position, the legs come down at each corner slightly under the body. Now suppose we allow this horse to stand as naturally as possible. If we drop a plumb line from the center of her shoulder, and the weight just touches her heel, the legs will be in a correct position from a side view. The hind legs should extend back somewhat more than the front ones. The fact is, the hind quarters furnish the driving power and the main force of the horse. Sometimes the legs are carried away under the body or are stretched far behind, either positions being at the expense of a well-balanced motion."

At this the teacher called one of the men and said, "Bring out that horse with the sickle hocks." This was a driving horse that carried his hind legs well beneath his body, showing bad form and weakness in action.

"As one stands before or behind the horse, the legs should come down fairly true, not too close together, but just near enough to carry a true, clean action, without the feet or ankles interfering with each other. We have in the stable an old work horse which I will have brought out; he carries his legs and feet in an excellent manner."

Just then a pair of Percheron mares which had been used for plowing were brought up.
good horse when he sees one. The horse that makes the greatest impression on most people is usually beautiful. There is pleasing symmetry and balance of outline, and the prominent, intelligent eye, gracing a beautiful head, shows fine disposition and intelligence, such as is more manifest in the horse than in any other farm animal. Character of that sort has distinct value, and men are willing to pay a premium for it.

"These mares," said the Instructor, "have much to commend them as farm horses. They are very well put together, and weigh about 1650 pounds each. Observe, now, several things about them that are to be desired in a draft horse. They have good-sized, lean, intelligent heads; strong, muscular necks; broad, short, level, strong backs; deep bodies showing both weight and feeding capacity; long, wide, powerful hindquarters, with the tail carried high; short legs; and well-formed feet. Last, but by no means least, these mares have quality. By that term I mean they have a hard, strong, fine bone, as seen in the legs; refined heads and ears; and silky, beautiful hair. They look as though they were well bred. I am sure the farmers of this State will never produce too many such mares."

"You told us once last winter," said Jim, "something about the character of a horse. What do you mean by that?"

"Character is seen in animals just as much as in people," was the reply. "The expression of the eye and face, the carriage of the head and neck—yes, of the whole body—means much to the judge who knows a
"If we drop a plumb line from the center of her shoulder and the weight just about touches her heel, her legs are in a correct position."

"Of course there is a good deal to be said about a horse. They have diseases and troubles peculiar to themselves; but if they are given regular care, and clean, wholesome food at regular times, they usually do very well. Some horses are over-fed and some are under-fed."

"Where could we sell our draft horses, if we had some for sale?" said Mr. Fernow.

"If your neighbors did not care to buy and to pay you a satisfactory price, no doubt you could find buyers in the larger markets. In fact, professional buyers are constantly looking for desirable horses to ship to the eastern markets. Good draft horses for shipment to New York and Boston have brought as high as a thousand dollars a pair. In fact, our horses are very popular in the eastern markets."

"These mares have much to commend them as farm horses."

"One of the most serious conditions affecting our American live stock interests at the present time is that a large part of our stockmen are breeding without any ideals or standards. They keep mixed herds of all kinds of breeding, and have few animals that can command the best prices. Mixtures of breeds or grades of live stock are far too common on our farms. The markets are crowded with inferior animals which bring inferior prices. If we compare our conditions with those of England, France, Holland or Belgium, we find that the people in those countries have for many years bred along well-established lines, and today universally keep animals especially suited to the needs of their country. Thus in Scotland one finds Clydesdale horses, in England the Shire, while in France the Percheron prevails in the Percheron district to the exclusion of all others. What is needed in America is the Com-
munity system of breeding, where the people agree to join together, and keep, breed and improve their stock with certain fixed plans. If for example, Percheron horses were bred by fifty farmers in your county, you may be sure buyers would come there and patronize you well, and your section would soon become famous as a draft horse center. This has invariably been the experience of every community or county that has followed this method with horses or any other kind of stock."

"Now," said the Instructor, "I have an engagement and must go. However, you will find much excellent live stock here at the College, which we are always glad to have our friends inspect. If we can assist you in this horse question, you may be assured it will give us pleasure to do so."

The rest of the day was spent about the College, and Jim showed his people around with much pride. On the city streets they saw numerous large fine draft horses, hauling immense loads that suggested possibilities of production down in the hills. It was the opinion of all that the day was well spent and it might be added here, that Mr. Fernow said to Jim before they got off the train that night, that he believed he would buy a pair of good mares and see what they could do for a start.
Henry Learns How to Judge Cattle

Standing in a corner of the barnyard at the University was a large, broad-backed cow. She attracted the attention of Henry Ashton, who was seeing the herd for the first time.

"What is she?" he asked.

"That, my boy, is Czarina," I replied. "She is a shorthorn cow, and the State University bought her to teach our young men an object lesson with good stock. You noticed at once that she is pretty large. Here in the yard are forty other cows. If you will look closely you will see still others with forms rather like that of Czarina."

"Yes, I see that," said Henry, "but there are some cows here that strike me as quite a bit different. They haven't the same shape."

"Right you are," said I, "and in about five minutes I will give you a little object lesson about shape and usefulness among cows. We will just have that Jersey cow, Silver's Mollie, brought up alongside of Czarina. Steady there!"

"Now, first I want to tell you that the form or shape of a farm animal indicates her special use or purpose. Good specimens of animals that are what we call well bred, always belong to a type of a distinct kind. We say cows like Czarina belong to the beef type. If you

will stand back a bit, my boy, and take a sideways view of her, you will see that she is pretty smooth all over, and that she has a deep body and not very long legs, if you compare her with some of the other cows. You will notice that her breast extends forward so that she looks rather full there, while the back end of her body

is also plump and well filled out. Now change your position and look at her from in front. What do you see?"

"I notice," said Henry, "that her front legs are wide apart, that she is thick through and her breast is very big."

"That is right. Now go back of her and what do you see?"

"She is thick enough behind. She has lots of thick meat there."

"That is exactly it," said I. "Now, if you will look down over her back, if you can, you will see, I guess,
that she is broad on top, not only along the middle of her back, but behind on top where you said she was thick, and also in front over her shoulders. She is what we call broad and deep and thick, or blocky. She has a great body. That means she can eat a lot of food. If you will feel her back you will notice how like a firm cushion it seems. Right there, where it is so wide, the butcher gets those fine steaks your mother buys, which cost 25 cents a pound.”

“Oh yes,” said Henry, “I know what you mean. Those are what they call porterhouse, for that is what I heard the butcher call them.”

“Yes, you are right. Now here is an important thing. Cattle like Czarina have been bred to produce meat. The man who breeds such cattle tries to produce just as wide backs and just as thick ends as he can, for here is where the butcher gets his best meat. Do you notice
that fat steer over there? We call him Ohio Prince. Well, he had a mother like Czarina. Now we have been feeding him to show what the farmer can make if he puts good feed into the stomach of a steer that is bred right. Notice how wide his back is and how thick he is at each end. If you feel along his back, it will be mellow and thick. If you rub your hands along his sides you will hardly notice that he has any ribs. That is because his food has been changed into meat which has been smoothly spread all over his skeleton. When the butcher kills him he knows pretty near what he will get. He calls him a prime steer and says he will top the market if he sells him. He will make a mighty fine killer."

"Well, how about this Jersey cow?" said Henry. "Aren't you going to say anything about her?"

"That reminds me, I was just about to remark that now we would take a look at Silver's Mollie. We think she is a beautiful cow, but the Lord never intended her for a beef maker. Won't you just stand back a bit and look at her as you did at Czarina? Now tell me what you see."

"To begin with," said the lad, "she isn't as big, by a good deal. Then, she shows her ribs, and her muscles look big to me. Her body is deep, and her legs are short, and she seems deeper in behind than forward. When I stand and look at her from in front, she seems narrow. Her breast isn't thick like Czarina's. It has a kind of sharp edge to it, and I notice her neck is rather long and thin, especially on top, while Czarina's seems short and thick."

"Yes, you are right, my boy, as far as you have gone. Now go in behind and look at her. What do you see now?"

"Well, she is pretty wide, and she has a big bag between her legs, which are thin behind and muscular. I
noticed Czarina and the steer had real thick, roundish sort of legs."

"Yes," said I, "they cut the round steaks from those thick parts of the leg. That is where some of the heaviest meat is found on the steer. We call that the hindquarter. But let us look back to our Jersey. Now come and stand with me and look down over her back. You notice that she is broad in the middle, but not so wide as Czarina by a good deal. She is narrower all over. If you will look down on her from over her forelegs you will notice that she is real narrow and sharp, where Czarina was thick and wide. Now the beef type is thick all through here in front, while this Jersey cow is sharp here on top and then widens off below like a wedge. You said she seemed narrow and sharp as you stood in front and looked at her, but she was thick behind. You also said she was much deeper behind than in front as you looked at her from one side. So you see you have discovered something of a wedge form in this Jersey, and as you saw it from three positions, we call it a triple wedge form. That is really what we call the dairy type."

"Yet one of the most wonderful things about the dairy cow, that we have hardly referred to, is her udder, or as we often call it, her bag. This is held by strong muscles up between the hind legs at the thigh, and when it is of good shape it has considerable front and rear to it, with four nice teats all hung on a level and wide apart, and just big and long enough for a man to take them comfortably in his full hand when he is milking. Now when you first looked at Silver’s Mollie from behind, you said her thighs were thin and muscular. That is just as she should be. If her thighs were thick and meaty she would not have room in between for that big, fine udder which makes so much milk."

"There is one other thing, Henry, to which I want to call your attention which but few people ever notice. If you will put your hand up on the under side of the body of Silver’s Mollie, in front of her udder, you will feel a great big vein on one side, and if you feel on the other side you will find another. These are called milk veins, and on some cows they are almost an inch thick and are twisted along under the belly in a most interesting way, and finally disappear at a hole in the belly, which is known as a milk well. Good judges of dairy cattle think the best milkers as a rule have large udders, milk veins, and milk wells. These are always much larger on old cows than young ones, just as the veins on the hands of old people always stand out more than they do on you young chaps. The cow’s udder is a most wonderful thing and of great capacity. Good
cows give several times more than their weight in milk. In 1905 Silver’s Mollie made 6236 pounds of milk, which is seven times as much as her own body weight of 900 pounds, and that milk contained over 300 pounds of butter fat.”

“Now, Henry, when you put your hands on Czarina, you found her all covered with mellow flesh, but this cow—Silver’s Mollie—you say is muscular and shows her ribs. Yes, she is lean all over, and you do not feel any fat on her skeleton. That is because her ancestors

![Image](image_url)

“She is lean all over”

have been bred for generations to make milk, and her food helps to make milk instead of meat. Thus, each cow is bred for a special purpose, and the one who understands the type is thus in a position to purchase or to produce the one that should best suit his purpose.”

“There is another thing I want to call your attention to before we finish talking about these cattle. That thing is what stockmen call quality. High class animals always have the most quality. It is shown in a fine, silky coat of hair, in a mellow, elastic skin and in fine bones and neat joints. There is lots of difference in the coat of hair. One cow may have hair that is fine and soft and thick. There is a very fine and close undercoat and then longer, coarser hair. Such hair is a great protection in winter. Other animals, and they are the most common, have coarse, long hair. Their bones are also likely to be big and coarse. When an animal has plenty of quality you can easily take the skin in the hand between thumb and fingers and pull it out from the side of the body. It will be mellow and roll up somewhat in the hand. If the cow lacks quality her skin will be thick, tight, and not easily taken in the hand. Fine quality, as seen in the hair, skin, and bone, means with the beef animal, that when killed there will be much less waste of the carcass than if the conditions show lack of quality. So also the dairy cow with plenty of quality is a better producer of milk than if the quality is lacking.”

“Do people pay more for these cows if they have the points you have been talking about, and this quality?” said the boy.

“They certainly do. Years ago, when our cities were small and the country was young, people did not pay much attention to these things, but, as the country and the markets grew, the dealers in stock began to get more and more particular about the types. They divided the animals into different classes, and the nearer, for example, the beef steer in the market comes to the best type the higher the price he brings. And so they say an animal is a fancy or a choice steer, or only good or medium, or perhaps he is only fair, or common. In each case, from fancy to common, the grade is getting
farther and farther away from the type of Ohio Prince. The poorer he is, the less the butcher will pay. By the way, here I have in my pocket a copy of a live stock paper, in which the Chicago market prices on steers are given, and you notice that the price paid becomes lower as the quality and type drop toward common. It is the same way with dairy cows, with draft horses, with fat hogs, or any other kind of stock.”

“Now there is a great deal more that might be said on this important subject of types and breeds of stock and the judging of them, but this is enough for now. Perhaps one of these days you will be a student in the Agricultural College and then you can study and judge live stock to your heart’s content.”

Prayer of a Horse

To Thee, My Master, I Offer My Prayer—

Feed me, water and care for me, and when the day’s work is done provide me with shelter, a clean, dry bed and a stall wide enough for me to lie down in comfort. Talk to me. Your voice often means as much to me as the reins.

Pet me sometimes, that I may serve you the more gladly and learn to love you.

Do not jerk the reins, and do not whip me when going up hill.

Never strike, beat or kick me when I do not understand what you want, but give me a chance to understand you.

Watch me, and if I fail to do your bidding, see if something is not wrong with my harness or my feet. Examine my teeth when I do not eat. I may have an
ulcerated tooth, and that, you know, is very painful.

Do not tie my head in an unnatural position, or take away my best defense against flies and mosquitoes by cutting off my tail, or limit my range of vision by blinders, so that I am frightened by what I cannot see.

And finally, O my master, when my youthful strength is gone, do not turn me out to starve or freeze, or sell me to some cruel owner to be slowly tortured and starved to death; but do thou, my master, take my life in the kindest way, and your God will reward you here and hereafter.

You will not consider me irreverent if I ask this in the name of Him who was born in a stable. Amen.

—Author Unknown.