

HORSES.

Only the stallion which shows well-marked masculinity and individuality should be used for the production of the larger type of drafters.

See that the in-foal mare has sufficient bedding, even if some of the geldings or colts have to be content with a smaller amount. The mare's comfort will add much to the chances of success with the progeny.

It has been said that a good horse is never a bad color, and the saying bears a certain degree of truth, for if the animal possesses the desired quality, conformation, style and action, these eliminate the undesirable color appearance to such an extent as to cause it to be overlooked.

One is sometimes struck by the lack of muscling in some of the draft horses seen at exhibitions. Well-developed muscle is an essential in draft horses, if they are to attain their best in strength and stamina. There is only one way to obtain it, and that is by giving more exercise to the colts during development.

In connection with the dairy work carried on in Eastern Ontario last year, the water supply on 311 farms was tested, and 63 per cent. of them found to be contaminated. Taking this as a fair average for conditions over Ontario, and assuming that the horses on these farms get their water from the same supply as the cows, there is an enormous number of horses drinking contaminated water. The dangers of bad water to the human race and in dairying are well known, and it is just as important that precautions be taken to make the water supply for the horses as pure and wholesome as that used for the home.

Roots for Horses.

Most farmers readily realize the importance of some succulent substance in the ration of the cattle and sheep, but they do not seem to think it important in horse-feeding. Roots are generally relished by the idle horses during the winter months, and they are valuable in keeping the animal's system in tone. They have a more or less laxative effect, and, when fed in moderation, aid the animal's digestion to a marked degree. Their actual feeding value is not high, yet they contain some of the constituents necessary for the maintenance of animal life. Prof. Henry, in "Feeds and Feeding," cites some experiments carried on by Boussingault, the great French farmer chemist. In extensive experiments, this investigator found:—

That 280 pounds of cooked potatoes, mixed with cut straw, are equal to 100 pounds of meadow hay.

That 350 pounds of carrots cannot quite replace 100 pounds of meadow hay.

That artichokes were greedily eaten by horses, which thrived on them, 30 pounds of sliced tubers taking the place of 11 pounds of meadow hay.

That 400 pounds of Swede turnips are about equal to 100 pounds of meadow hay.

It will be seen from the foregoing that, aside from their value as a system regulator, roots have

a real feeding value for horses. With hay at present high prices, a few roots could be fed to advantage. Swede turnips, even at 10 cents per bushel, would compare very favorably with hay at from 18 to 20 dollars per ton. At this price, the equivalent of a ton of hay in turnips would only be about \$13.34, and 10 cents per bushel is a fairly high price for turnips.

Of course, roots should never be made the foundation of a horse's ration, but a large turnip or two smaller ones, given once a day, are generally found profitable during the winter months. Potatoes are too expensive this winter to be economically used in any quantity for live-stock feeding purposes, but carrots, perhaps the most relished of all roots by horses, could be fed to good advantage.

The Thoroughbred as a Sire for Half-breds.

Abstract of an address given by Dr. F. C. Grenside, of Guelph, at the recent Winter Live-stock Show at Ottawa.

Prizes are given for Thoroughbred sires at many important exhibitions of horses in this country, and from this we may assume that the managers of these shows are of the opinion that the infusion of Thoroughbred blood is likely to exert a beneficial influence upon the light-horse stock of this country. We have also a Breeding Bureau whose avowed object is the promotion and encouragement of the use of the Thoroughbred sire. In view of the evident importance attached to the dissemination of Thoroughbred blood, it may be



An English Thoroughbred.

This is a horse of the big type. He stood 17 hands, and had great length of body, heavy bone, and wonderful speed, being a Derby winner. It is horses of this type that do well mated with half-bred mares.

of interest to us to inquire into the results to be attained, and the best course to pursue in order that we may get these results.

In the first place, I must explain the qualification in the title of this article, as it is intended to exclude altogether the consideration of the breeding of Thoroughbreds, as there is not one farmer in five hundred that is likely to go into the breeding of them for racing purposes, so that what we are interested in is the mating of Thoroughbred stallions with mares other than Thor-

oughbreds. It may be as well to explain just here that the term "half-bred" is applied to the offspring of Thoroughbred sires when mated with mares other than Thoroughbred, no matter what percentage of Thoroughbred blood they possess. For instance, a mare may have eighty-seven and a half per cent. of Thoroughbred blood in her veins, and if she is mated with a Thoroughbred sire, the custom is to call her offspring a half-bred.

It may be as well to further explain that confusion exists in the minds of some people as to the designation, "Thoroughbred." We sometimes hear people speak of "Thoroughbred Hackneys," "Thoroughbred Trotters," and "Thoroughbred Clydesdales." The Thoroughbred, English race-

horse, or runner, is a special breed, and it leads

to confusion to use the name of this breed as a

qualifying term. What we would use is the term

"pure-bred," instead of "Thoroughbred," to in-

indicate the breeding of pedigreed members of the

different breeds.

We now come down to the practical question as

how and to what extent we may use the Thor-

oughbred sire upon mares other than Thorough-

breds, in order to produce useful and marketable

horses and grade up our brood mares. In bring-

ing forward the discussion of light-horse breeding

before bodies of farmers, one is frequently con-

fronted with the statement that it pays better to

breed heavy horses, for the reason that they are

more easily marketed, and that their production

is more in keeping with the knowledge and horse-

manship of the average man. Conceding this to

be in a large measure true, we must recognize the

fact that light horses are in demand for various

purposes, that some breeders have a taste for

them, and that they can be marketed at remunera-

tive prices; consequently, it is a question worth

studying from various standpoints.

It may logically be asked what attributes the

race-horse possesses which we would desire to in-

troduce into the light-horse stock required for

various utility purposes. First of all, he possess-

es the attribute of running speed in a paramount

degree. This property is of value within certain

limits, particularly in hunters, and to some ex-

tent saddle horses; but, in selecting a Thorough-

bred sire to cross with ordinary mares, there are

other attributes which we would consider of more

importance. What we mean by this is that, no

matter what degree of speed a horse was known

to possess, if he had not a number of other prop-

erties, he would be valueless as a sire of half-

breds, and almost any Thoroughbred has trans-

missible speed enough for that purpose.

The Thoroughbred has a highly-organized nerv-

ous development which gives him courage, force,

wiriness, and stamina. Such attributes consti-

tute what is usually called toughness, which is

very valuable in the half-bred.

The Thoroughbred has to a marked degree elas-

ticity of movement, the result, to a considerable

extent, of his high nervous organization. This

makes him light on his feet, lessens the wear and

tear incident to work, and gives to the rider that

delightful feeling of springiness so indispensable in

a good riding horse. Another attribute that the

Thoroughbred may be said to be the essence of

is "quality." It is this property that con-

tributes so much to his attractiveness. It gives

him that tone, that aristocratic appearance which

causes people to admire him, not knowing exactly

why. Density and toughness of his tissues

which enable him to stand strain and jarring are

but the expression of this property of quality.

Canada, and On-

tario in particular,

owes much to the

Thoroughbred, for

whatever reputation

she has attained as

a light-horse produ-

cing country has

nearly all come

through the medium

of the progeny of

sires of this breed.

Canada stands at

the "top of the tree"

for producing the

best timber jumpers

in America, and if

she had twenty Thor-

oughbred stallions

where she now has

one, she would at-

tain still greater

eminence.

But the practical

farmer will say, "I

can't make hunters

of horses, so I could

not get the top prices

for them." That is

quite true in nine

cases out of ten, but

it is not necessary

for the farmer

to finish a hunter in order to get a remunera-

tive price for him; and if he breeds heavy-

weight hunters, or horses that will weigh from

1,150 to 1,250 pounds, he has got the best gener-

al-purpose horse he can raise. Such a horse is

capable of doing nearly any kind of work on a

farm, can draw a load to market, and can drive

along an eight-mile-an-hour clip with ease on the

way home.

Don't breed light or weedy mares, or mares

that are too coarse, to Thoroughbred sires. Sub-

stance is needed in the mare, and if she has a

liberal infusion of warm blood in her, and an ap-

proximation to the Thoroughbred type, so much

the better.

In the production of saddle horses, in which

more style and action is demanded, in order to



Hackney stallion, Mathias A1, and filly foal by him (at five days old).

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