

The Kind of Large Horses for Breeders to Select.

The opposition to breeding the small common mares of this country to large stallions is fast disappearing. The splendid results obtained from breeding to the compact, elegant formed, clean-legged, active, wide awake Percheron, has done more to bring about this change in opinion than anything else. The demand has been and is still rapidly growing, for larger horses than we can raise from our native stock.

Years ago this caused some of our most intelligent farmers to import and try the plan of crossing Percheron stallions from 1,500 to 1,800 lbs. weight with their ordinary mares. This course was at first opposed by almost every one as absolutely ruinous to the mares, and contrary to every principle of breeding that had been advanced up to this time, and the result was looked upon as a certain failure. The trial, however, proved a grand success, and since the introduction of the first Percheron horse west of the Alleghany Mountains, about 25 years ago, their reputation has increased so rapidly that over seven hundred have since been imported and distributed over all parts of the United States, and have found their way into Canada (two of which took the second and third prizes at the Provincial Exhibition this last fall). The remarkable results obtained from the French crosses has had evil effects as well as good, for it has given rise to the impression among many that a large stallion is all that is needed to accomplish the desired end, no matter of what kind or quality; they have been liberally patronized, and with the characteristic eagerness of Americans to realize immediate benefits, many have recklessly gone to the greatest extreme, demanding the largest stallions that could be procured, apparently satisfied with great weights. We are sorry to say that this idea has gained considerable strength, as may be seen from the large number of coarse, clumsy brutes to be met with in many parts of the country without a single redeeming quality to recommend them other than their size. Nor are these worthless caricatures upon horses confined to any one breed. The coarse, big-headed, straight-shouldered, small-bodied Clydesdales, with ponderous, hairy, spongy legs and flat feet, without spirit or action; the rough, high-hipped, slope-rumped, crooked-legged, clumsy things, bred in Northern France and Belgium; the over-grown and over-fed English cart horse, as well as the small, giraffe-looking, big-legged Yorkshire horse—all have contributed to this supply.

This is all wrong, and those who have become possessed of the idea that weight alone is what is wanted in horses, cannot too soon be convinced of their error.

We are in great need of a larger class of stallions in Michigan, but the greatest care should be used in their selection. We want pure-blood, symmetrical-formed, attractive stallions, with energy, action and quality, clean limbs and good feet. Every such horse brought into our State will be of immense value.—[Mich. Farmer.]

The Teachings of the Shows.

But frequenters of our fat stock shows who have for years watched them closely, though as spectators only, can not fail to be impressed with certain general facts and principles. Nothing is so evident as the steady progress in the science of breeding and feeding. As a general rule the animal that is of a good shape, as a store or lean ox, sheep or pig, will fatten well and retain his symmetry. But aptitude to fatten and the lying on of good flesh do not always bear the same relation to symmetry in one animal as in another. The frame may be almost perfect, whilst the flesh put on in the process of fattening may be unequal in its distribution and poor in quality. A tendency to put on fat in lumps and patches frequently exhibits itself. The flesh of one portion of the body gets developed at the expense of another. The flesh may be deep on the ribs and light on the buttocks, the brisket well packed with meat and the loins scanty and bare.

Modern breeders and feeders have improved greatly on the type of fat stock exhibited a generation or more ago. Mr. Mechi remarks that when the Smithfield Club held its shows "in the side of a stable" in Aldersgate street, "what were then considered beautiful animals were deformities,

with masses of pure fat put on here and there, and, comparing them with the animals at the present time, the latter showed a great advance." But in nothing has there been greater progress than in producing animals that reach an early maturity. The classes of aged oxen are gradually becoming weaker, and the two year old class stronger than ever.

Slow, long continued feeding is unremunerative, and the quicker animals can be made ripe for the butcher the more profitable they are to the feeder. There is a point soon reached up to which the feeding of an animal pays. Any attempt to go beyond it entails loss. After the animal has reached what is called prime fat condition every additional pound of flesh costs more to produce than those which were produced before. This may be seen by referring to the comparatively small increase of weight in twelve months in an animal that has arrived at maturity, and has been exhibited more than one year at a fat cattle show. For the purpose of exhibition, not only is the continual attempt at forcing costly, but the result frequently takes an undesirable turn.

The animal, we will presume, is this year almost a perfect model in shape, and obtains a first prize in its class. The ambition to make it still better overleaps itself, and by the end of another season weight may be added, but the symmetry is destroyed and the perfect show form is gone to return no more. Reporters of shows then speak of the animal getting "patchy," and that it has "lost its bloom." The exhibitor finds he has overshot the mark, and that his best road to retreat is to take his animal straightway to the shambles. "Champion" animals at fat cattle shows do not hold their position long, and perhaps it is well they do not. They should make way for other younger competitors.—[London Farmer.]

Form of a Milch Cow.

A good sized udder and milk veins are invariably essential. The shape of the udder and teats is not imperative, but they must be capable of producing, storing, and delivering the milk. We all look for a well-quartered udder, for nothing is more annoying to the milker than to have one hand finish its work long before the other, which will be the case unless the quarters hold about the same quantity of milk, and the teats are about equal in size and delivery. The teats are to be squarely placed, tapering, large enough to fill a man's hand, and not fleshy.

Besides this, the perfect milch cow should be capacious in body, indicating feeding capacity, thin and light before, with thin neck and shoulders, sharp withers, light head, etc. She should be lower in front than behind, because she needs room for her large udder, and length of leg to keep it from hanging too low, while it is an advantage to have short fore-legs, which brings the head nearer to business. This gives the general idea of the "wedge-shape" in milch cows so much talked about, but only in respect to the side view. The view from above would be similar, that is, broad behind, the broadest point being at the hips and thighs, and the lines converging towards the head. This matter of form is important, and it is valuable in bulls, also, as being likely to be transmitted to their daughters.

The milch cow must have bone enough in the leg to carry a capacious and heavy body. In this point they rarely fail, yet, occasionally, upon rough pastures we find that more bone and stronger joints would be of service.

The head, horn and tail can hardly be too light, and happily we are taught to regard these, when small, as points of special beauty. In Guernsey the proverb runs "that a long head indicates much milk;" and upon that island I found special value placed upon a broad muzzle and big mouth, on the ground that with such a mouth the animal could much quicker fill herself and lie down, and it is quite true that then more food will go to milk production, and not to supplying the necessary wastes of the muscular system, increased by prolonged exercise.

The thighs should be thin through the muscular portion above the hocks, for this gives room for the udder, and thick thighs occasion irritation in walking when the udder is distended.

A thin neck and shoulders are usually found accompanying thin thighs, but not always. Meaty withers and a thick neck are a bad indication, and rarely if ever found on a first rate milker.—American Agriculturist.

Miscellaneous.

BEST FOOD FOR WORK HORSES.—The West Division Street Railway Company, of Chicago, works about 2,000 head of horses, and after a careful test of various kinds of food, have adopted a mixed ration of corn and oats ground and fed with cut hay, slightly wetted. In winter the bulk of the ration is $\frac{2}{3}$ ground corn and $\frac{1}{3}$ oats, but a gradual change is made as warm weather approaches, until in the heat of summer the ration consists of $\frac{1}{2}$ corn meal to $\frac{3}{4}$ oats, which is again changed as winter approaches.

GOOD FOR NEW ZEALAND.—A New Zealand bullock of prodigious size turned the scale at 3,948 lbs., or 35 cwt. 1 qr. The following are his measurements:—Height, 6 ft. 1 in.; length, 11 ft. 9 in.; girth, 9 ft. 10 in.; at belly, 10 ft. 11 in.; hocks, 2 ft. 1½ in.; arm, 3 ft.; width across loins, 2 ft. 11 in.; yoke, 7 ft. 8 in. His age is eight years, and it is not likely that a larger-framed or heavier beast was ever produced south of the line. The largest heard of in Great Britain weighed 28 cwt., and took the first prize at Edinburgh in December, 1873.

A WATERING TROUGH FOR WINTER.—There is in the *Rural New Yorker*, a sketch of a good winter trough. It is simply a trough made in the usual manner, hung at each end on pivots, fastened to upright short posts. When the animals have done drinking, it can be swung bottom up, supported by a prop, and the water all runs out, instead of freezing and filling the trough, so as to require chopping. This is a vast improvement on the old fashioned plug.

A Connecticut farmer states that a few winters ago, when milk brought him six cents a quart, the diminished flow consequent on discontinuance of the use of the "common flat field turnips" convinced him that they were worth twenty-five cents per bushel for cows. They did not save hay, but helped digestion and promoted health. He thinks it important to give only sparingly at first and gradually increase the ration; also, to feed just before milking, so that the flavor will not be imparted to the milk.

Mr. Cheever, of the New England Farmer, very justly says that "the question whether butter made from milk that is closed in tight cans as soon as drawn, is in every way equal to that made from milk which is exposed to the open air, is, we believe, still an undecided one. Much would depend upon the purity of the milk when brought to the milk room, and also upon the purity of the air in which it is set. We never drank sweeter milk than that which had been submerged in Cooley cans within ten minutes after being drawn from the cow."

In a lecture delivered in Philadelphia by Dr. Richardson, on the germ theory of disease, great stress was placed upon the sanitary influence of soap and hot water. It was stated that 60,000 typhus germs may thrive in space not larger than a pin's head. That they may be borne like thistle seeds everywhere, and, like demoniacal possessions, may jump noiselessly down any throat. But these spores cannot stand water at a temperature of 120 degrees, and soap chemically poisons them. Here sanitary and microscopic sciences come together. For redemption, fly to hot water and soap. The water is sanitary. Soap is more sanitary. Fight typhus, small-pox, yellow fever and ague with soap. He concludes: "Soap is a Board of Health."

CORN IN DRILLS.—A New Jersey paper says that ninety years ago it was regarded as a settled point that corn in drills gave a larger product than in hills, but that now, after much discussion, it remains unsettled. This remark would not be made by any one who has informed himself on the subject. We have thoroughly tested this question by measuring the results, and find almost uniformly an increase of 25 to 30 per cent. with drill corn over hills—provided the proper distance is given for the plants. It would be easy to obtain a diminished amount from the drills if too thinly planted, or ears of an inferior quality, if much too thick. John Johnston informs us that after long experience he arrives at results precisely similar to those we have mentioned.—Country Gentleman.