



STOCK & DAIRY

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BREEDING.—BY ALEXANDER HYDE.

It would seem that in this stage of the world's progress in agriculture, that the idea of breeding from any other than thoroughbred stallions, bulls, bucks, and boars, would be obsolete. But such is not the case. So far as horses are concerned, a good degree of attention is paid to blood. Horses are large animals, and their points are so prominent that a wayfaring man, though a fool, cannot mistake them. If a farmer wishes to raise a roadster, he does not put his mare to a jackass or a Percheron, but to a Morgan or Hambletonian. He sees—and seeing is believing—that the characteristics of the sire are transmitted with a good degree of certainty to the foal, and that the selection of the sire often makes hundreds of dollars difference in the value of the offspring.

As we descend the stock scale, we find that as the size and value of the animal descends, less regard is paid to the blood, though the thoroughbred principle holds just as true of the inferior as of the superior animals. Thus a scrub bull will be used by a man who would discard the idea of breeding from an ordinary stallion, and still less care is exercised with regard to bucks and boars. Whether this is the result of ignorance or heedlessness, we do not know, but it is all wrong. "There is a great deal in the breed," as a good old divine once said to us in our youth. He had reference to featherless bipeds as Plato defined men to be, but the maxim applies with equal truth to all animals, whether biped or quadruped, feathered or featherless, horned or hornless.

We would by no means advocate the doctrine that farmers should raise none but thoroughbred stock. The breedings of thoroughbreds is a trade of itself, and requires a degree of education, care and capital which we do not expect to find in every farmer. There would be some sorry failures if every farmer should undertake to do what Mr. Mali, of Stockbridge, Mass., is doing for horses, or what Mr. Campbell, of York mills, is doing for cattle, or what Mr. Hammond, of Vermont, did for sheep. But what every farmer can do with great certainty of success, no matter what kind of stock he keeps, is to breed only from thoroughbred sires. These can be purchased from those who have capital and capacity, and who make a speciality of breeding thoroughbreds, or the mares, cows and sows can be driven to those who own full blooded stock. Grade animals for all practical purposes, breeding excepted, are often as good, and sometimes better, than thoroughbreds. It is astonishing how soon the character of the stock can be improved by using only full blooded sires. Some of the best herds of cattle we have ever seen never had a thoroughbred dam among them, but by the persistent use of the pure blood sires, have been raised to such a degree of excellence that a connoisseur would pronounce them thoroughbreds. Such notoriously is the case with the herds of the Messrs. Anderson and the Messrs. Wells, of Shelburne, Mass., and the excellence of many of our native cows, so-called, can be traced to a cross with some blooded stock. The effect of such a cross is often seen in the third or fourth generation, and very possibly may effect the thousandth. Theoretically, it doubtless does, but we might need magnifying spectacles of large power to discern it.

"If like produces like, why may we not breed from good specimens of native stock, or from good grade animals?" This is a question often asked, and has been often answered but the answer is either not understood or it fails to convince. The simple truth is that in order to be certain of the character of the progeny, the characteristics which we wish to propagate must have come down in a long line of ancestry. A grade bull of superior points may reproduce these points and he may not, but a thoroughbred is sure to impress himself upon his progeny. So settled is this principle, from the observation of many close observers for many years, that it is folly longer to question it. Nature sports sometimes, both in the animal and vegetable kingdoms, but the sporting rarely happens in regular lineal descent. It is only when the regular line is broken that we look for sports. Thus a thoroughbred wild cherry will reproduce its kind with the same certainty that the sun rises day after day; but plant the pit of a black Tartarian, and you may get this variety or some other, as it may chance. Now our native herds are a mongrel race. They are the result of the miscegenation of Downes, Durhams, Danish, Dutch, and we know not now many other herds, and of course, are greatly inclined to sporting, and is no wonder that in our native cattle we find all colors, red, white, and black, spotted, speckled and brindled, and all kinds of form, size and quality. Let those who will breed from such stock. A prudent man foreseeing the consequences, will select a thoroughbred when he chooses a mate for himself or a mate for his animals.

"How many generations does it take to produce a thoroughbred?" is another question often asked us. We must answer it, Yankee fashion, by asking another: How many years must a boy live to become a man? Precisely where the dividing line is between boyhood and manhood it is difficult to tell, and is equally difficult to say where the grade ceases and the thoroughbred commences. Mr. Anderson has been breeding from thoroughbred for nearly two score years, and his herd is splendid. He pronounces it thoroughbred. Others would differ from him. It is a safe principle to lay down that the larger the line of descent, the more thorough is the breed, and the more certainly can we rely upon its propagation.

We are pretty well satisfied that one great reason why farmers do not patronize thoroughbreds more is the cost of service. A progressive farmer purchases a thoroughbred bull, thinking that his neighbors will be glad give him something extra for the use of his extra animal, but he is generally disappointed. As long as they have a scrub of their own, or can hire one for a dollar, they will not pay two dollars for the use of a thoroughbred. This is a penny wise and a pound foolish policy. The progressive farmer should not, however be discouraged. If he has only a moderate number of cows of his own, he will be sure of good interest on his outlay, and his neighbors will by and by be convinced that blood tells. In this town of Middlefield Hampshire County of Mass., one thoroughbred Durham bull, the Roan Duke, so brought up the character of the stock that its valuation was increased thousands of dollars, and after serving his day and generation in that town he did a similar service for the town of Shelburne.

What one bull has done another can do, and the same general principles of breeding hold good with all kinds of animals. A Suffolk boar, to our certain knowledge, will improve the character of the swine of a neighborhood, as a Durham bull does that of the cattle.—N. Y. Times.

STOCK BREEDING.—THE IMPORTANCE OF GOOD BLOOD AND GOOD MANAGEMENT.

BY T. C. JONES, DELAWARE, OHIO.

If anything can be regarded as settled in the theory and practice of American agriculture, it is that, except in the immediate vicinity of large towns and cities, and possibly on the cotton and sugar lands of the South, the business cannot be made profitable without including the growing or feeding of stock; which is found to be indispensable to the maintenance of the fertility of the soil and the success of that mixed system of husbandry without which we have no protection against the disastrous effects of low prices and unfavourable seasons upon particular crops or products. The opinion, therefore which so generally prevails, that stock growing must be abandoned in the older States, for the reason that their high-priced land cannot compete with the cheaper lands of the new States and Territories, is manifestly erroneous; because, whatever changes may be required in the practice of agriculture in the older sections, in view of the competition of the rich corn and grass lands which by a mistaken policy are being forced into occupancy in advance of the actual necessities of the people, it seems obvious that so long as the land is used for the production of crops, the grazing and feeding of live stock cannot be dispensed with.

This is demonstrated by the practice of the farmers of Great Britain, who notwithstanding the high price of land and of all varieties of tillage crops, pay more attention to stockbreeding than any other people in the world. The course of agriculture in our own country teaches the same lesson. I remember the time when the feeders of the Scioto, Valley grazed their cattle on the prairies of Illinois; and predicted that in a few years this great State, with its matchless soil, would be able to raise cattle enough to break down prices so as to render the business unproductive in the old States, just as we now hear the prediction that Texas and the Territories will soon grow the beef for the whole United States. But what have been the actual facts? Illinois, though surpassing the most sanguine expectations as a corn and grass producing State, had, according to the last census, less than one hundred and fifty millions of dollars invested in live stock, while the old State of New York had nearly one hundred and seventy-six millions. The live stock of Missouri is reported as worth eighty four millions, while that of the old Keystone State is set down at more than one hundred and fifteen millions, and Ohio at over one hundred and twenty millions. Texas, with all its advantages as a grazing country,

and an extent of country equal to a half-a-dozen of the old states, has only 37 millions in live stock, while Michigan has nearly 50 millions.

It is also to be observed that while the Western States, excepting Texas, are rapidly increasing in live stock, as in all other products of agriculture, the older States are also making very respectable progress. Thus, while Illinois between 1860 and 1870 added 77 millions to the value of her live stock New York during the same period added 73 millions. The increase of Pennsylvania was 46 millions, while in Missouri it was only 31 millions.

These facts are quite significant as indicating the prominence which this great interest has and must continue to maintain, in American agriculture. It is therefore safe to assume that in the future, as in the past, the prosperous farmer will be the man who handles most judiciously his live stock; for it is unquestionably true that while this branch of industry is, when properly managed, the most profitable, as it is the most interesting, connected with our vocation, it is the most disastrous unprofitable when the management is bad.

For example, a man who allows his growing stock, say cattle, pigs, or sheep, to run down during winter, so that instead of gaining, they lose in weight, will lose its entire winter's keep, because his animals are worth less in the spring than they were the previous fall. And so, the man who buys a lot of badly formed scrub cattle, because they cost less than good ones, will lose a heavy percentage, because they will not "lay on" flesh as well-bred cattle will on the same feed; and when brought to market they will have to be sold at least 25 per cent. less per 100 lbs. on account of their inferior quality and weight.

If for breeding or milk cows inferior animals and inferior blood are procured, the result will be still more disastrous. If we select a good cow that will give a fair quantity of good milk, and of such form and blood that her calves will be worth raising, and that can be converted into a good carcass of beef when no longer wanted for breeding or for milk, we shall have made the most profitable investment that pertains to legitimate agriculture; while a cow with qualities the reverse of all these will be the most unprofitable thing that could be selected. The same observations will apply to stockbreeding in all its branches. "Blood will tell"—if you give it a chance; but an ill-bred and ill-formed animal will usually "eat his head off" under the best management.

It was in view of this undeniable fact that the great Bukewell insisted that everything depended on blood. You must have a good sort, and having this, reserve only the best for breeding. Insist upon "the survival of the fittest" only for breeding purposes, and that if you feed well, so that your young stock, is always kept in a thriving condition, you will maintain the excellence of your stock and insure satisfactory profits from a branch of industry that is as interesting to men of the highest culture and refinement as it is essential to the daily wants of the world.—*American Agriculturist*.

BRAN AS A FEED.

Bran, (wheat bran,) is largely used as a feed for stock. It is largely used because it is largely (and cheaply) made and really contains some substance that benefits the animal, the real grain substance—in other words, flour in a coarser state. So far, it is good, and answers the purpose of grain, or better, meal. But the cost of the grain, which is a large portion of the bran, is of no use, only so far as it benefits the manure heap. It is indigestible. It is more; it irritates the stomach and intestines; sets the bowels in motion, ending, if continued, in the scours, great weakness, and sometimes death to the animals. Horses, which are the most sensitive in this respect, are oftenest the victims. Bran mashes given largely have resulted in this way. A cow is less susceptible, and hence will eat bran (in slop,) with comparative impunity, and with the benefit which is derived from the nutritive properties of the bran, which when taken in considerable quantities, has a favourable effect. Of course excess must be avoided. To feed largely of bran with roots or pumpkins will not do, as there is no chance for remastication, the fine material going at once to the forth stomach; and the irritating effect of the bran will take place unhindered. But mixed with coarse fodder, there will be but little, comparatively, coming in contact with the

lining coat of the *prima via* in most of its course, being mixed with the bulking material, which will go through the regular process of proper retention and re-chewing.

Bran, then, given short of an injurious (over-loosening) action of the bowels, is a benefit—much more to cattle than to horses. It should not be used as a feed for horses at all, only medicinally, to give activity to the bowels, care being taken never to carry it to excess, as it is a characteristic of the horse to readily sink into weakness on the supervision of disease, and especially when the great central duct with its accompanying viscera is concerned. Where the bowels are inactive it certainly may be made a benefit by giving ease to the discharges and animation to the animal. But beyond this let it in no case be carried. When grain is fed somewhat largely, bran should never be given, as grain answers the purpose of keeping the bowels in good condition. Fed on early cut well-crushed hay, when there is lethargy of the intestinal functions, the necessary action will as soon be restored and sustained better than if bran or any other aliment or medicine be given. Such hay, when cut quite green, has the effect somewhat of grass, so that here in a regular, natural feed, a remedy is found superior to all specifics, drugs and washes put together. For sheep and young stock a little bran fed is well disposed of. There is material in it for forming the bones, muscles, &c. But it is best adapted to the milk cow fed with coarse fodder. An excellent way, and perhaps the best, is to mix with it cut straw or hay. If the whole is moistened and heated, or steamed, all the better. It also affords a cheap as well as nutritious feed, the more so if good hay is used instead of straw. In no case should bran be given to that extent that it produces the scours, as in this case it is doubtless brought on by mechanical effect resulting in inflammation making the case serious.—*Cor. Utica Herald*.

CUTTING FEED.

In reply to a correspondent, the *North British Agriculturist* says: "The expenses of chaff cutting and pulping, and subsequently mixing the dry food and roots, must vary greatly according to accommodation and appliances. Unless with tolerably commodious premises, with ample floor for mixing, with stock grouped in handy, convenient stalls, boxes, or yards, the advantages of the system are problematical. A good steam or horse driven chaff cutter will cut in a day ten tons each of straw and hay and five tons of roots. A man and two lads will do the cutting, and may besides undertake, in a suitable constructed place, the bulk of the mixing. Even allowing a fair amount of fuel and horse power, and wear and tear of machinery, the cost of the machinery is small. Properly managed there is less waste of hay. Faulty, over-dried, or mouldy stuff, which would otherwise be neglected by the cattle, is readily devoured when moistened and sweetened by admixture with the roots. The mixture, although not increased in nutritiveness is more easily digested. The straw especially is softened, and willingly eaten in larger amounts than when it is given whole. Some good managers chaff their straw as it comes from the threshing machine; the cutter is driven by a strap from the engine; a portion of hay at the same time is sometimes added; the cut fodder is carefully salted and trodden into barns or out buildings; a slight heating or fermentation sets in, and the mixture, even after several months' keeping continues sound and fully as palatable as freshly-cut chaff. Such a plan obviously effects considerable saving of time and labor in the moving of the straw. For sheep in pens on the open field we heartily approve of cutting the roots; the practice pays; there is less waste, and the sheep if properly attended to, especially in the early morning, thrive better; but long fodder appears preferable to chaff, which in the field is constantly blown about and much of it wasted; while in wet weather it is apt to become unpalatable before it is cleared up."

CATTLE AND CORN.

Knowing that your paper has a large circulation among that class of farmers who are extensively engaged in stock raising and corn growing, I ask the privilege of submitting to them, through the columns of your paper, some facts and figures, as well as a few suggestions relative to my text above. That the stock interest is now and must