Breeding Mules.

The announcement recently made that the War Department had sent an agent to the United States for the purpose of purchasing 400 of the large mules used in the Southern States, should attract the attention of English stock-raisers, and induce them to pay some attention to a business which, in the near future, must be an important one. It is a well-understood maxim in warfare that battles are won as much by the thoroughness of the Transport Department as by good generalship; hence every continental nation devotes special attention to this branch of the service, and sees that it is always kept in an efficient condition—for without it no army could march and fight.

The best animals for this department have been found to be mules, and though six have no more strength than four ordinary horses, yet they excel the latter so much in endurance, steady energy, and adaptability to bear all climates, that they may be considered to have no equals for draft purposes in any army. Being able to subsist on almost anything, bearing hunger with a fortitude worthy of an Indian warrior, having a comparatively economical appetite, and possessing high intelligence, patience and perseverance, it seems to us a matter of surprise that more attention has not been paid to rearing them for military use.

The prejudice against them in England is founded on ignorance of their many excellent qualities, and even of their utility for the road and farm, but this would soon be dispelled did persons see the gaily caparisoned mules that draw the coaches of the Spanish grandees, or the nimble creatures that toil day after day over the Andes, or bring the glittering metal from the mines of Mexico over high roadless mountains to the seacoast.

Their value for army use has been recognized in the late campaign in Afghanistan, for they have thrived on work which has killed camels by hundreds; and that they are appreciated by the authorities at the Horse Guards is evident from the order lately sent to America for 400 to be despatched to South Africa. It is supposed, and very properly, that they can stand the climate, diseases and flies of South Africa better than horses; that they can live on less and poorer food; and that they will bear an amount of hard labor which their nobler kindred cannot.

I was relegated once to the command of a mule-train in the American army for three months, and in that time I had a good opportunity of studying the characteristics of the long-eared quadrupeds; and I must say that I was pleased with them. When ordered to carry ammunition or provisions to the front I could nearly always depend on the power and speed of the macrotian animals to be up in time; but if the horses of the same line had to be relied on I found that, if the roads were bad, they could not accomplish their work; hence on many occasions men went hungry, or without ammunition, when they had to await the arrival of horses. The mules which were found to be of such value in the United States were carefully bred for their purpose, and the result was that they combined speed with power, endurance with intelligence, and unflagging perseverance with a generous yet easily-pleased appetite.

Speaking of these animals from the beginning—which we must do in order to give novices in mule-raising hints which may be useful in breeding them—we may say, generally speaking, that they have the head, ears, voice, tail, feet and temper of their sires, and the body and much of the strength of their dams. It is a peculiar fact about these hybrids that the proportion of males to females is in the ratio of two or three to one, and that while some of the first generation are prolific, all others are not. It has not yet been found, I believe, in a single instance that the offspring of a mule is capable of reproducing its species, although as perfect anatomically as any of its ancestors. What the reason is for this has been the cause of much speculation among naturalists, but I doubt if any of them have come to any other conclusion than that Nature cannot be outraged too far, and that she objects to a violation of her laws or the propagation of a species which she cannot sanction.

An odd fact in connection with mule-raising, and one which has become an axiom among mule-breeders in the Southern States, is that a mare which has once produced a mule is unfit for anything else, and that all her offspring—even if their sires are the bluest-blooded horses in the world—will have a mulish appearance. First love is said to have such an effect on the imagination of mares that they never can forget the sight of the jack, much as they may loath him, and, this is so well known in the South that dams are kept specially mule-breeding. This is a fact not generally known, I believe, and might be of use to some breeders. Even mares producing a mixed offspring do not get as good foals as if they were kept to one breed, and so well is this fact now recognized among mule-raisers that they say the third and fourth drops are far superior, as a rule, to the first and second, owing to the affinity and harmony of idea which exists between the jack and the dam if they are much together. The same result has been found with the raising of hinnies or jennies, so it would seem to teach a valuable lesson in the general breeding of animals.

The fact that mules can stand warm climates better than horses, and that they are also more hardy, sure-footed and cautious in traversing mountainous regions, has caused them to be highly appreciated in South America, Mexico, the Southern States of the Union, Spain, Savoy, Egypt, and other places. Excepting the head, which is rather long and clumsy, the Spanish mules are handsome and intelligent animals; those of Savoy are remarkable for their size; and those of Egypt for their courage and endurance, and also their ability to stand spurring and hunger. Having fewer diseases than horses, a less fastidious appetite, working to nearly double their age, being less expensive in feeding and more muscular in proportion to weight, they might be considered the best animals known for draught purposes in any army, and to a certain extent for the farm, especially for those who have small holdings.—[London (Eng.) Live-stock Gazette.

Treatment of Cows at Calving.

Cows in good condition should be watched carefully for any symptoms of fever; for its progress is so rapid in some cases as to afford little time for treatment. The early symptoms are, dullness, langour, red eyes, hot head and horns, a strong pulse, sometimes uneasy movements of the hind legs, the cow then lying down, placing its head on its flank, or striking its horns on the ground. Sometimes the symptoms are only fever, rapid pulse, and quick and strong breathing, with loss of power over the limbs, want of sensation, torpor of bowels and bladder. One of the best things to do in case of an attack, is to apply moderately cold water to the whole body; and this is best done by placing a woolen blanket around the cow, from udder to foreleg, and pouring water between the blanket and the body, wetting the body and blanket thoroughly, covering with a dry blanket if the weather is cool. Matting or old carpeting is good to place around the body; place it under, and bring the ends together over the back. If the cow is down, roll her over on the blanket, having first wetted it, and also the side of the cow. This wetting will produce a formentation and gradual cooling of the whole surface of the body, modifying the fever, and usually producing relief in a short time. If it is that form of the disease in which there is great heat of the head, pour ice-cold water upon the head between the horns, at the same time that water is applied to the whole body; and as in most cases the udder is swollen and hot, this should be treated with the water bag, which is useful in garget and fever in the udder. This bag may be made of oil-cloth, or, better, india rubber, large enough to enclose the udder, coming up to the body, flaring at the top, held up by a strap over the back, and filled with soft water of a moderate temperature—say 65 degrees. This will soon allay the irritation in the udder, and the water can be changed when it becomes warm. Give at the same time copious injections of blood-warm water, which will assist in relieving the bowels and intestines. It is well to chafe the back and hips gently. We have seen these applications work well, even when the cow was unable to rise, and had passed beyond the bleeding stage.

We give this rational treatment, because it may be applied by the dairyman himself, with great success, when he cannot have the skill of the veterinarian, and will save many more cows than any attempt of the dairyman himself to apply veterinary medicines.—[National Live Stock Journal, Chicago.

Polled cattle are in demand in Australia. A bull of that breed recently sold at Melbourne for $1,000. Six cows and two bulls from the Tillyfour herd of polled cattle were sold for $6,000.

Milk and Beef Together.

The *Journal* reaches such various classes of dairymen, who produce milk for such various ends, that we shall be aiding many by discussing the subject heading this article—the feasibility of producing milk and beef at the same time. It is generally believed by dairymen that this cannot be done—that a cow cannot give a remunerative yield of milk and lay on fat and flesh at the same time; but this opinion is not in accordance with well-conducted experiments, both in this country and in England. The late Mr. Horsfall—a very painstaking and careful experimenter in dairying in England—detailed his experience in the Royal Society's Journal, by which he proved most conclusively with his whole herd that a cow can be fed to maintain a full yield of milk and lay on flesh satisfactorily at the same time, and that he had found this the most remunerative plan of dairying. It does not follow that all dairymen would find this plan the most profitable. His market for beef was as tempting as his market for milk. But our purpose in discussing this question is not, at present, to recommend it for its profit, but to see if it is practicable to produce beef and milk at the same time. Mr. Horsfall, whilst experimenting in reference to the effect of high feeding upon milch cows, discovered that a farrow cow, fed abundantly on appropriate food for producing milk, would go on producing a remunerative yield for a long season, much past the usual time of bearing a second calf; and, taking a hint from this, instead of buying fresh cows and calves at high prices, he selected good farrow cows, discarded because they were farrow, but yet giving a fair yield of milk. These could be had at low figures; and he had found that, under his system of feeding, they could be made to increase their milk very largely, yielding the best quality, and, at the same time, making rapid progress in fattening for slaughter, drying them off only during the last month of fattening. He found his yield of cream about as much as from fresh cows, which produced him a profit; and, when the cow was ready for the butcher, he made another quite satisfactory profit on her sale.

His system was found successful in other hands, as was lately proved in an address before the London Farmers' Club, by Mr. Allender, the manager of the Aylesbury Dairy Company, at Kensington. He described his practice with the large number of cows in that establishment, of keeping all in such high condition that they were ready for beef at any time; and that this often saved loss in case of an approaching fever. This plan he found to produce the most remunerative yield of milk, and, at the same time, enabled them to dispose of their cows at a profit.

This system has many followers in this country on farms near cities, where beef is as marketabe at all times as milk and butter. Mr. Horsfall was a most judicious high feeder. He always fed a portion of roots daily to his cows, with oil-cake, bran-meal, malt-combs, nicely-cured hay, and straw. He was sure to give such variety as always promoted the health of the cow, as well as a large yield of milk and flesh. High feeding in the hands of some who do not study the physiological condition of the cow, and feed too largely of such heating food as corn-meal, without emollient and sedative effects of oil-cake and roots, very often produces fevers and disease. But there can be no doubt that judicious high feeding will produce a remunerative yield of milk and fatten the cow at the same time. Every dairyman should study his own business so thoroughly as to know how and under what circumstances this can be profitably done.—[National Live-Stock Journal, Chicago.

Cure for Black Leg.—I notice that considerable is written about black leg in calves. My experience is quite expensive, having lost several very fine thoroughbred Devons, before learning that bleeding is an absolute remedy, and having never lost one that was bled at about 6 months old and again at about 12 months. I had two attacked at about three months old by apparently a similar disease upon the lungs. The first was thoroughbred, of the best strain of blood, and died. Bleeding saved the other one. I think it a very uncommon thing for an attack of black leg to occur before the calf is six months old, or after 18 months. I believe this remedy absolute.—[C.E.D.

An English farmer, very successful during ten years in fattening cattle and sheep, supplied a ration made as follows: Eight bushels corn soaked in ten pails water two days, then simmer for an hour; afterwards mix with fourteen pounds coarse, cheap sugar, and commingle with cut straw, hay or other fodder.