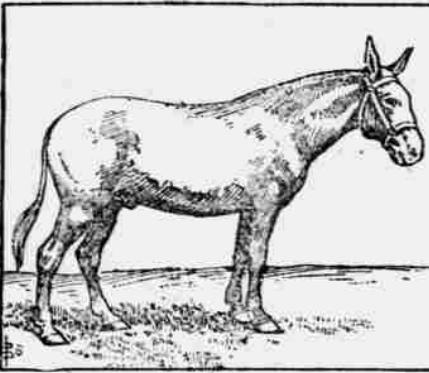


BREEDING AND USING THE MULE

The mule is worth more than any animal living as a class used for domestic purposes and will bring more to the square inch and is considered the safest property to own in the live stock line, writes J. L. Jones to the Breeder's Gazette, Chicago. The fact is established that the mule as a class is a more valuable animal than the horse as a class, and as the progressive farmer sees this (and all Americans are progressive) he will adopt the mule as the farm animal and motive power for the drudgery work. Now if the mule can be bred cheaper, raised cheaper and is worth more when raised and matured than the horse, why should any one be afraid to pursue this business with a vim and never look back? The seasons for horses are usually higher than for jacks to mares, and if a man has a blemished and decrepit mare he sends her to the jack, but his best mares he breeds to a horse. If the mule, with his poor, insignificant, ill shaped, cold blooded mother, brings more than the horse, what could he do if he had the chance to have for a dam some of those fine mares that are stunted to horses whose service fee is from \$100 up to \$500 and often more? The mule costs less in service fee, is raised cheaper, eats less and brings more money when matured than the horse. The mule lasts longer and can do more work on less feed than the horse.

Mr. Hambleton, a Maryland authority, gives this as his experience as to the cost of raising mules: "From Oct. 1 to April 30, when the mule goes to grass, would be about 1/4 barrels of corn (6% bushels) at \$3 per barrel (estimated for an eastern state), or \$3.75 for the first year; second year, add one-third, say \$5; third year, another third, \$6.62, all equal to \$14.37, cost for corn at three years old." This estimate does not take into consideration that the mule may be put to work at two years old and earn his feed. Add to this for hay and roughage similar amount, and you have the cost at \$30, not including grass.

It is said that a mule weighing 700 pounds at a furnace carried daily 15 tons of ore, 1½ tons of shells and slack, 10 tons slag and sand and 8 tons of siftings and dirt from the ore kline. The ore and sand were hauled up an elevation of 30 feet and a distance of



WELL BREED MISSOURI MULE.

300 yards, the other about the same. This mule did this work for six years and was still at it when last heard from. Mules are little subject to disease, as bats and colic. The greatest work horse troubles distract mules but little. Bleeding at the mouth will cure them of nearly every malady and disease, and by being turned out in pasture they will recover from almost any accident. Out of 100 mules at the works we have not lost an average of one in two years. We do not recollect to have seen but very few wind broken mules, and we dare say they are very few. They are rarely defective in the hoofs, although we keep them regularly shod, but it is not nearly so important to do so as in the case of the horse. Their skin is tougher than that of the horse, and consequently they are not much worried by flies, nor do they suffer as much with the heat of the summer. They are true in starting and never give up if well driven. The instinct of the mule is very strong, and he has better memory, judgment and ought to have better treatment.

Mules are truer pullers than the horse and quicker travelers with a load. Their vision and hearing are more acute. They are less liable to start suddenly—a fault with the horse. The mule is more steady in his draft and less liable to waste his strength; hence more suitable for all agricultural work. Among all the agricultural pursuits he is peculiarly suited for plowing among young crops, his feet being smaller and following each other so much more in line that he seldom treads on the tender plants. The facility of instructing him to obey implicitly the voice of the driver or the plowman is astonishing. The best plowing of land is often performed without lines or driver other than the plowman.

Do not understand me to underrate the horse by any means, for he is the noblest animal perhaps of the domestic kind, but I merely make the plea for the mule and seek to put him in his proper sphere, where burdens are to be carried and drudgery and hard work to be done. I would not draw back one iota from the horse or his owners, but would encourage them to raise better and more mares which are to become the dams of the mules.

Cull Closely.

Some of the young sows are not doing very well in the way of raising large litters. Better cull them out. But don't demand too much. The sow that will average two litters of six or eight pigs each is worth keeping, especially if she is able to raise these pigs.

HANDLING COLTS.

Establish Your Mastery While the Animal Is Young.

So much has been said about the breaking of colts that it hardly seems as if there is anything else to say, but the importance of the subject is full justification for a repetition of what may have been said. What is a horse worth unless he has good manners and is under full subjection? Without these he should be put to such use as will not require them in any great measure, but surely he should not be used except by the best horsemen. Some men can handle almost any horse, but there are others who will have trouble with the best. Such a man should be careful to get only the kind that is well broken and has good manners, and let the other fellow that thinks he can handle any of them have the bad ones at what they are worth, and we can nearly always find some one who will take the chances.

If you feel as if you cannot break a horse or colt do not try it, for he will discover your fears very quickly. If you have any reason to fear you cannot master the colt, better get help or sell him unbroken before taking the chances of spoiling him and thus making him so much harder to conquer. The ideal way is to begin with the little fellow while yet weak and establish your mastery. Keep at it until he is old enough to hitch, and the breaking will be easy. Establish the kind of fear that will keep him from violating your commands or disregarding your authority, but not the kind of fright that will cause him to flee at sight of you and make it necessary to corner him in order to halter him. I have seen men in charge of a bunch of colts who were so brutal to the little fellows that a comfortable box stall and plenty of good feed would not induce them to "run the gantlet" of passing their keeper to get in out of a violent winter storm. And it was my fortune to have the same colts to break when the time came. After two or three years of that kind of treatment, do you think they ever forgot it? No. Fear was so thoroughly imbedded in their natures that they never forgot it. It might not be out of place to state that that farm had to incur the extra expense of driving them from one to three years before they were safe to sell, and a number of them never were safe, which was principally on account of the brutal treatment they had received the first two years of their existence.

While I am always sorry to see any kind of animal abused, it is true I have had a few colts to break that had come to that point where it seemed that only a good sound whipping would reduce them to subjection. Kindness and coaxing might have accomplished the work in time, but men do not like to pay the trainer for coaxing and petting their colts into submission when it seems like an endless job. Whether a horse is biddable and easily broken or shows a disposition to be headstrong and mean, he must be brought under subjection by some method before he can be considered safe.—H. C. Peters Before Ohio Institute.

THE FEEDER

Silage is excellent food for sheep if it is kept sweet in airtight silos. This may be done, although the silage may heat and ferment. It improves silage to let it ferment and then cool down, but the air must be excluded, so as to prevent acid fermentation. Silage may be made of any kind of corn or rye, cut green, as soon as in the milk stage. But roots are preferable to all other kinds of winter feeds, as they will never ferment and turn sour, and sour food is quite unfit for sheep. An excellent silo may be made of wood staves, covered with heavy sheet iron or tin. No question about the economy and advantage of growing the roots, as this is done so easily and cheaply, and they are preferable to any other winter feeding.—American Sheep Breeder.

Bone Strengtheners.

The use of sugar and molasses for cattle and horse feeding is gaining in popularity, says the Sugar Beet. Laws in many European countries have been changed, exempting these products from taxation when they are to be used for feeding purposes. When recently in Paris our attention was called to certain facts that may be interesting to our readers. The omnibus company of the French city owns over 10,000 horses, and as out of that number there are about 700 broken legs per annum it was argued that possibly these accidents were in a measure due to some faulty combination of the daily rations. In 1901 the first experiments were made, the one kilogram of sour mash that had hitherto been used being substituted by an alkaline molasses combination. The results obtained were encouraging beyond the most sanguine expectations, and in 1902 the number of broken legs was only seventy-nine. It was concluded that the extreme fragility of the animals' bony structure was due to the absence of the requisite mineral elements in their rations. There appears to be ample medical authority for asserting that heavy consumers of sugar, in case of bone fracture, will recover more rapidly than when that article of luxury is eaten in moderation. In some hospitals patients that are laid up with compound fractures of legs or arms receive in addition to their regular food allowance 150 grains of sugar, the cost of which is soon covered by the lesser period needed for the complete healing of the bony tissue.

THE SCRUB MUST GO.

Improved Breeding of Live Stock the Order of the Day.

Years ago when the state fair first opened it caught us in a state of total unpreparedness, as it were, especially on cattle, and very few fine Texas bred cattle were on exhibition, writes George H. Hogan in Farm and Ranch. A few enterprising exhibitors from other states with cattle and hogs saved the day, so to speak, and opened the eyes of our understanding and set us to thinking along the lines of enlightenment. The state fair was a revelation to many, the state press especially. Our agricultural press at once turned over a new leaf, and men began to breed along the lines of practical common sense.

It is a maxim among those best informed on the subject that the sire is much more than half the herd in all domesticated animals.

Intelligent breeders all recognize the absolute necessity of an unbroken "blood line" in the sire, but thousands of our farmers, who have not taken time to get their heads above the plow handles long enough to attend the fairs, are still plodding along and breeding their stock, especially cattle, just any old way, simply to increase the number and many times to avoid the payment of a reasonable breeding fee.

"The scrub must go," is the handwriting on the walls of our barns and stables all over our land, whether he be swine, bovine, equine or the genus homo. Improved methods, improved breeding, improved implements, improved seed, are the order of the day—and a failure to adopt which in this hustling age will certainly bring to grief all who stay in the old rut.

The competition in everything is becoming so sharp that people are being forced to keep informed or they will be relegated to the rear. Yes, the scrub must go.

THE SHEPHERD

A young ewe should not be judged too hastily. She is not at her best with her first lamb. If she has the right breeding and the right feeding she probably will come out all right with her second offspring.

Save the Ewe Lambs.

The man who has an inferior flock, "kind o' broomcorn ewes," might improve his flock faster by selling both ewes and lambs and buying a few good ewes and starting anew, and when a lamb brings nearly as much as a ewe, as is now the case, the temptation to part with all the lambs and take the chances of picking up a few good ewes later is too strong for many to withstand, but good breeding ewes for sale are wonderfully scarce and the prices asked almost prohibitive, says E. P. Snyder in the National Stockman and Farmer. The man who sacrifices all his ewe lambs every year soon finds himself with a flock of profitless, superannuated old ewes and only finds out his mistake when it is too late. The man who takes pride in his flock and always uses a pure bred ram can well afford to reserve the best ewe lambs to keep up the standard of his flock, no matter how great the temptation to take advantage of high prices.

Management of Lambs.

I rather favor early lambs, but you must have a warm stable, and more feed will be needed, says a writer in the American Agriculturist. The ewes may have less wool than if the lambs come late. If you are likely to become overstocked you can get rid of lambs at good prices. The ewes will be fat in the fall to sell or in prime fix to breed again. To have good lambs ready for Easter you must push them all you can, besides feeding the mothers strong feeds. I always have an extra pen for the lambs to go into, where I give them sugar to get them started eating. Then I give ground oats and cornmeal bran, mill wheat, sugar beets and in fact anything they will eat, along with plenty of good clover hay. If I want to keep them I dock all of them within two weeks from birth. Those I intend to sell I omit. For the ewes a good, roomy stable should be provided during the winter and also for summer use, to keep them away from sun and flies. The ewes must have plenty of exercise, even in winter time. Their main feed should be clover hay or alfalfa, if you have it, with some good cornfodder. I also give them cut shear oats and oats and shelled corn mixed. Oatmeal, bran and roots of some kind, with salt and sulphur, add to their flesh. You must be careful not to overfeed and should manage your flock so as to sell the ewes after the first or second lambing, to keep up the vitality of the general flock. Do not overstock. A small flock does better than a large one.

Meat Chops.

A ewe gaining in flesh at mating time is much more likely to produce a good lamb than one in poor condition.

To insure a thrifty and growing condition some grain should be given ewes every day in addition to the pasture.

Scrub rams will make you scrub for the money you get. Don't keep them. Get good ones.

One thing we must get over if we ever expect to make much with sheep and that is tying our pocketbooks into a hard knot when it comes to buying good sheep for the head of our flocks.

The sheep fence needs to be good and tight two or three feet up from the ground. Above that it may be more open.

Most of us get so busy about other things just about this time of the year that we almost forget the sheep. Tie a string on your finger rather than neglect one of the most profitable animals on the farm.—Farm Journal.

FALL PLOWING.

Deep Plowing Brings Inert Soil to the Surface.

There is often a difference of opinion as to how deep soil should be plowed in the fall. Iowa Homestead has the following to say on this subject in answer to an inquiry:

While the nature of the soil to some extent regulates the depth of plowing, it may be said that on general principles fall plowing should be done fairly deep. In the case of sandy soils and sandy loams we would hesitate before plowing more than four or five inches deep, for the reason that on such soils it is better to keep them firm below and as far as possible keep the vegetative matter and mineral constituents near the surface. There are certain light soils in the corn belt, though the area is small, that would be more productive if they were never plowed, though of course the preparation of a seed bed necessitates plowing from time to time. If, however, the disk or some surface cutting implement could be utilized to prepare the seed bed it would, in our opinion, increase production.

However, on average corn belt land the proposition is entirely different because there is not much danger of fertility leaching away, while there seems to be considerable advantage in having a good depth of friable soil.

We have in mind a field that was plowed to a depth of about eight inches in the fall of 1905 and put to corn this year. The soil was a rich black loam with a somewhat stiff subsoil. The corn at present writing of this field gives every appearance of reaching a yield of eighty or ninety bushels per acre, while the adjoining field, plowed somewhat shallow, has much less thrifty appearance, though the soil is identical. In the case of the deeply plowed soil the fodder has been of a dark green color until the husks began to turn, and as a result nearly all the ears that formed were fully developed. In the other field the fodder took on a somewhat yellowish appearance when the corn was in the milk stage and at present the ears, many of them, have the appearance of being a little small. The theory of deep plowing is that it brings a certain amount of inert soil to the surface, where it is weathered, thus bringing about the liberation of fertility that would otherwise remain inert. It may require more work in the spring to prepare a seed bed on a deeply plowed soil than where it is plowed shallow, because it always pays to make the seed bed firm. However, we believe that in the case of the deep plowing the increase in the crop where corn is grown will much more than pay for the labor.

The only precaution that we should advise would be that depth of plowing should be increased gradually. If a soil has been plowed to a depth of not more than four inches we should not advise increasing the depth more than one inch at a time, because if more inert material than the extra inch brought to the surface liberates fertility may be slow the first year as to interfere with maximum production. By going an inch deeper each time until the soil is stirred seven or eight inches deep one may reasonably expect good results.

TELEPHONES ON FARMS.

They Help to Quicken Rural Life and Improve Conditions.

The material advantages of the telephone for farmers has frequently been pointed out. It saves time and "time is money," but it does much more than that. It is a great quickener of the intellectual and social life of farmers, and this is a fundamental advantage which is sure to result in material benefits.

If we desire to improve the condition of any community the fundamental way of going about it is to educate to quicken their thoughts and ideas, improvements and machinery and improved methods are all necessary, but back of these must be the quickened intelligence. The man who uses his muscles long hours every day to the exclusion of healthful mental and social diversion is not a farmer, but a machine—an automaton. It is not from these that improvement comes.

It is not these who advance. It is the man who thinks and then puts his thoughts into acts who improves methods and accomplishes results. A community of such people will be prosperous.

The telephone does quicken the life of every community in which it becomes established. It aids in the rapid dissemination of news. It enables each farmer to talk to his neighbors any and every day about anything which mutually interests them. It enables them to quickly arrange for meetings and gatherings of all sorts.

Muscle counts for less in farming than it used to and intelligence counts for more, but they should both go together. The farmer needs good schools, good papers and good books, but he also needs the telephone, concludes a writer in Farm and Ranch.

Farm Notes.

Alfalfa is no lazy man's crop.

Fall plowing is the best on most farms.

Just watch the cornfields grin from ear to ear.

If you are afraid of work you better let alfalfa alone.

All men who keep bees are not necessarily bee keepers.

Alfalfa must have loose soil, and it can't stand wet feet.

Buying a manure spreader beats buying commercial fertilizer.

Corn cut before the frost gets it is worth more to the cows than that which is caught.—Kimball's Dairy Farmer.

APPLE HARVEST.

How to Handle the Crop in an Easy and Economical Way.

All baskets should be of the half bushel type, round bottomed, with a swinging handle, and should be provided with a strong iron hook that can be hung upon a limb or on the ladder, allowing the picker to have both hands free.

Steppladders are not usually desirable in apple picking, because that portion of a tree covered by a steppladder can be equally well picked from a longer ladder, and an experienced picker prefers not to move his ladder more than is necessary and also desires to cover just as much surface on the tree as is possible with one moving.

Apples should never be handled but twice, once from the tree and again from the sorting table. When the sorting and packing are done in the field the picker may deposit his apples direct upon the table; otherwise they should be placed in boxes, crates or barrels and be removed at once to the packing house, at which place they will be cooler, and sorted at some later time.

The advantages of a good storage building are twofold, especially in commercial orchards. When picking time arrives every effort should be made to harvest the crop at the earliest possible moment, and if the grading and packing were done in the orchard at the same time it would call for an extra number of hands, and in these days, when scarcity of labor and high prices for the same are such factors in crop production, it is by far better economy to concentrate all efforts toward harvesting the crop before attempting to prepare it for market. Again, if packing is attempted at the same time with picking, the manager's attention will be divided between the two operations, with the probability that neither will receive the care it should have, and still again, unless fruit is to be immediately placed in a chemical cold storage, it is far better for it to be stored in a building which can be thrown open at night, when the air is clear and crisp, as it will be at that season of the year, and have the storage closed tightly in the daytime. Many dealers today give decided preference to fruit which has been stored in a well ventilated storehouse. They claim that it will keep practically as well up to March or April and that there is much less danger from scald when taken out of storage.

Shiftless packing really accounts for more than one-half of all the unsatisfactory returns from fruit, and to remedy this trouble it calls for the united efforts of growers and dealers. They should realize that their interests are mutual and not antagonistic; that whatever tends to build up the apple industry affects one as well as the other. Our eastern fruit is, as a rule, better than the western and, being grown near the consumer, ought to command a superior price, and yet it is a fact, because of the better sorting and packing, it drives the home fruit from the markets. Upon the best brand of fruit a trademark is often important—some neat pictorial design or even the name of the farm or orchard where the fruit is grown.—Cyrus Miller in American Cultivator.

Cotton Seed.

That like produces like is a law of plant life to be observed in all details. From your best field of cotton select the best portion and in this choice division mark the most vigorous and productive plants showing short joints and fruit limbs near the bottom. The entire plant should be an exceptional fruit producer. Seed should be selected from these marked cotton stalks, but the top bolls and the bolls on the ends of the limbs should not go into the lot for seed; they tend to make the cotton later. The bolls selected for seed should be picked by special field hands, sent in advance of the regular pickers. This seed cotton must be stored in a dry place and watched to avoid mixing.

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