

offspring, while others excel in other points. This is equally true with our brood mares, and all these conditions should enter in in deciding the question of which one to select. Diseased horses, no matter what the trouble may be, transmit, not the disease, but an increased tendency to it. We say a person inherits consumption, but that is not the fact; there is implanted in the child a weakened condition of the organs involved, and the tendency is there. Just so with our brood mares or stock horses. Any disease or unnatural condition will show itself in the progeny. For this reason the disposition of both male and female should be studied as well as their soundness of limbs and body. A cross, vicious brood mare, bred to a horse of the same disposition, will produce colts with this trait intensified, and yet only the few stop to consider these things in making up their matings. Only the best of either sex should be used, for they only can produce the best. Sound mares, of good size and kind dispositions, bred to horses as good, will invariably produce colts their equal or better. And such colts will always attract purchasers, and command good prices in the markets. There must be a thorough weeding out, if we would improve our colts, and realize the high prices which a few to-day obtain.

The remark is often heard, "Yes, Mr. — can always sell a horse at a big price, but if I had one twice as good, I could hardly give it away." The fact is that Mr. — breeds intelligently, and realizes the importance of keeping only the very best brood mares. This fact cannot be kept from the purchasers of other States, who are always watching the practices of our breeders, and are quick to detect any improvement in the quality of our stock. In this way such men become known, and their stock is largely sought after. Here is the secret, and this is all there is to it.

WINTER TOP-DRESSING.

Henry Stewart in New York Times

There are some things which may be done at any time, some which are better done thus than never, and some which must be done at a particular time. It is quite important for the farmer to distinguish between these, and to so understand the nature of any work that he may always have it done at the best time. Now, top-dressing is one of these jobs about which there is a considerable latitude in regard to the time when it may be performed. It is a very necessary work, and for fall grain or grass lands may be done at any time from late in the fall until the middle of winter. But where circumstances have prevented the work up to this time it is better that it be done late than not at all. The manner of doing it depends somewhat upon circumstances. If the manure is fresh it may be hauled out and spread as it is made, and for grain or for sod that is to be ploughed in the spring for corn coarse manure is an excellent thing to protect the crop as well as to feed it, and this protection is a very important fact in the question.

The great doubt which disturbs the matter in the minds of farmers is whether or not there is a loss of valuable portions of the manure by reason of the rains carrying the soluble part of it too far into the soil, so that they are lost to the crop. This is very improbable. The soil is exceedingly absorbent of any such matters as these, and acts as a most effective filter. It may be safely accepted as a pertinent fact that no soluble organic matter contained in manure will be carried through eight to twelve inches of soil, unless the soil has become saturated with it and can hold no more. The earth floor of a manure

cellar, after years of use, has been found completely unstained by any percolation at a depth of twelve inches, and has given no indication of any mixture with the leaching of any manure which has been kept in it. It will be found the same in barn-yards, the surface of which has been covered with manure and has been rained upon for many years.

If this is so in such extreme cases no anxiety need be felt in regard to it in the field. Every farmer knows how little the continued use of manure for years past has affected the yellow or lighter colored soil below the arable surface, and how he objects to bring this hungry and barren subsoil to the surface. The most experienced and intelligent farmers who have had opportunities of observing the effects of it agree in this view, viz.: That there is no loss of any valuable matter from the manure that may be spread upon the grain or grass or even upon fall-ploughed land during its exposure to the weather through the winter.

One thing is to be avoided: steep hillsides, upon which heavy rains will wash the ground and carry off any loose or soluble matter, should not be top-dressed in the fall or in the winter, and especially if the ground is frozen, in which case a sudden thaw or heavy rain might carry down all the manure bodily into the low places or wash them entirely from the field. One other danger is to be carefully avoided, which is to unload manure into heaps to be spread afterward. This is both a loss and an injury. One rain or a week's delay in the spreading will cause the ground under the heap to become saturated with the strongest part of the manure, while the rest of the field will be deprived of a just share of it. To leave these heaps in a field all the winter for the purpose of spreading them in the spring is a still greater waste and loss and more serious damage.

SLAUGHTERING IN THE WEST.

From the National Live Stock Journal.

Considerable agitation is going on in Denver in favor of the establishment there of beef slaughtering and canning establishments. Recently two committees were appointed by the Chamber of Commerce and the Colorado Cattle Growers' Association, respectively. These committees met and duly reported on the 22nd ult. The burthen of their report is, that Colorado is bound to be one of the greatest stock States in the Union, owing to its vast grazing territory and its alfalfa yield, the value of its cattle, sheep, and horses now amounting to sixty-five million dollars; that its export trade in cattle is already most extensive, and that the establishment of packing houses at Denver would certainly draw largely for supplies on Utah, Wyoming, Montana, New Mexico, Arizona, and Oregon; that the atmosphere at Denver is remarkably well adapted to curing and packing. In a paper read by Mr. Rhodes, attorney of the Colorado Cattle Growers' Association, he states that it costs \$8.50 a head to land live steers in Chicago, while the cost of landing, as dressed and canned beef, the product of 100,000 head, would cost, to lay down on the Chicago market, \$425,000, or at the rate of \$4.25, a saving of \$425,000 on the 100,000 head, which constituted the amount of Colorado's beef exports last year.

The committee, in their report, and Mr. Rhodes, in his paper, discuss the matter very fully, and point out the numerous benefits to accrue, not only to Denver and Colorado, but also to neighboring States.

Unquestionably the principle of bringing near together the market and the source of supply is a wise one, and so far as putting the principle in practice, that is a mere question

of difficulties to be overcome, and whether these are so numerous or so great as to counterbalance the undeniable advantages. The union of the Chamber of Commerce of Denver and the Cattle Growers' Association of Colorado, and their agreement on the advisability of the movement, undoubtedly give it great weight, and unless those who may regard such an undertaking as fraught with disaster, or at least with damage to their own interests, should succeed in interposing obstacles too great to be overcome without jeopardizing the financial success of the movement, the establishment of slaughtering and packing houses in Denver may be regarded as among the probabilities of the future.

WEIGHT OF SHEEP.

From the St. Louis Journal of Agriculture.

But few farmers are aware of the heavy weights sometimes attained by the large breeds of sheep. Some of the breeds, as managed in England, exceed 300 pounds. The average weight of ten months' lambs, at Smithfield, England, in 1884, shows that the growth of those lambs from the special breeds is very rapid. The lambs of the Hampshire and Wiltshire Downs averaged 204 pounds; cross-breeds, 188 pounds; Oxfordshire, 178 pounds; Cotswold, 176 pounds; Shropshire, 153 pounds; Southdowns, 161 pounds; Leicester, 129 pounds. At the age of 21 months, the weights were as follows:—Hampshire and Wiltshire Downs, 293 pounds; Oxford, 292 pounds; Lincoln, 283 pounds; Cotswolds, 282 pounds; cross-breeds, 270 pounds; Kentish, 253 pounds; Leicesters, 254 pounds; Shropshires, 239 pounds; Southdowns, 216 pounds. Here we notice that the Southdowns fell but little below the Leicester at twenty-one months, and exceeded them at ten months. The above showing is a creditable one for the Southdowns, and confirms their position as one of the best breeds that can be used for improvement.

FEEDING BOX OR MANGER FOR COLTS.

A correspondent of the *American Cultivator* who has visited Highland Stock Farm, a noted horse-breeding establishment at Lee, Mass., thus describes a feeding box used for the young colts on the farm, which he says is something of a novelty, "and could be adopted with profit by any Northern breeder. It is one continuous box built against the stable walls, which form one side of the box. The bottom is about one foot in width and on a level with the ground floor. The side next the colts is about two feet in height, and built upon an angle with the bottom, so that at the top the box is about two feet in width. Against the walls of the stable, about on a level with the top of the feed box, is a girth some six inches in width. To this girth is nailed a narrow strip of board which projects about two inches above the girth, forming a shallow trough in which the colt's grain is placed. Every one who has observed a horse or colt eating oats has noticed that a portion of the grain is dropped from the mouth, and if allowed to fall in the dirt considerable must be wasted. By the above simple device the grain which the colts drop falls into the box which holds their hay, and as it has a tight bottom the grain is all saved and eaten, thus preventing considerable waste. The manager at Highland is an advocate of liberal feeding, so as to keep the colts growing from the start. Their pastures, particularly those in which mares suckling foals are kept, contain an abundance of rich grass. Occasionally a mare is a very scanty milker, and in such cases ground