

Miscellaneous.

Preservation of Harness.

Though the harness is an article of every day use, there are few who know how to care for it so as to ensure its durability, and to keep it looking clean and neat. A harness that has been upon a horse's back several hours in hot or rainy weather, becomes wet; if not properly cleaned, the damage to the leather is irreparable. If, after being taken from the horse in this condition, it is hung up in a careless manner, traces and reins twisted into knots, and the saddle and bridle hung askew, the leather when dried retains the shape given it while wet, and when forced to its original form damage is done the stitching and the leather. Those who use harness are not altogether in fault for this; they would take care of it if they knew the extent of damage that would result from their carelessness, and that they do not is the fault of the manufacturer. It is a mistaken policy that leads the manufacturer of any line of goods to neglect giving needed information to the buyer. Every harness manufacturer would study his own interest by accompanying each harness sold with printed rules for preserving the same.

The first point to be observed is to keep the leather soft and pliable; this can be done only by keeping it well charged with oil and grease; water is a destroyer of these, but mud and the saline moisture from the animal are even more destructive. Mud, in drying, absorbs the grease and opens the pores of the leather, making it a ready prey to water, while the salty character of the perspiration from the animal injures the leather, stitching and mountings. It therefore follows that to preserve a harness the straps should be washed and oiled whenever it has been moistened by sweat or soiled by mud. To do this effectually the straps should all be unbuckled and detached; then wash with a little water and brown soap, then coated with a mixture of neatsfoot oil and be allowed to remain undisturbed until the water has dried out; then thoroughly rub with a woolen rag; the rubbing is important, as it, in addition to removing the surplus oil and grease, tends to close the pores and gives a finish to the leather. In hanging harness care should be taken to allow all straps to hang their full length; bridles, pads, gig saddles and collars should be hung upon forms of the shape of each. Light is essential to the care of leather, and when the harness closet is dark the door should be left open at least half of the time during each day. All closets should be ventilated, and when possible they should be well lighted. To clean plated mountings use a chamois with a little trip oil or rotten stone, but they should be scoured as little as possible. Rubber covered goods are cleaned in the same way. Leather-covered needs to be well brushed and rubbed with a woolen rag.

If a harness is thoroughly cleaned twice a year, and when unduly exposed treated as we have recommended, the leather will retain its softness and strength for many years.—[Harness Journal.]

INCREASED PROFITS IN FARMING.—The *N. Y. Tribune* says that at the last meeting of the Vassar College Farm it was found that after deducting all expenses the farm was paying 7 per cent. on \$100 per acre, with a constantly increasing value. These results have been attained (1) by adding to the available land by draining several pieces with substantial stone drains at an expense of about \$25 per acre, at the same time removing any tendency to malaria; (2) by adding to the fertilizers, by building several tanks, which are filled with muck from the pond into which the college sewage is run. Thus by deepening the pond and keeping the sewage out of the brook, two sources of disease are averted. From this source about 1,000 loads of rich compost are annually made; (3) by adopting the soiling system, the selection of good milkers and the care which is used in tending the stock.

EFFECT OF FREEZING ON SEEDS.—Some experiments by Prof. Haberlandt have developed the fact that flax seeds which had been frozen germinated earlier than the unfrozen seeds, flowered earlier, ripened early, and the plants were larger in the proportion of seventy-one to forty-nine. The weight of the dried seed obtained from a given area planted with the frozen seed was to the similar area planted with unfrozen seed at 137.6 to 88.

Suitable Wheat-Soils.

Winter wheat, the most valuable of cereal crops, is the one most dependent on soil and cultivation. It is true that nearly all soils in a virgin state, not too largely composed of humus or decayed vegetable matter, will produce a few fair crops, but there are few that can be called natural wheat-soils—such as will grow profitable crops for a series of years without large outlay for manure. Wheat requires less vegetable matter in the soil than most other crops, but the mineral or inorganic elements must be complete, or profitable returns cannot be depended on.

A complete wheat soil must contain lime, potash, phosphate, and nitrogen, in their various combinations with other mineral elements, and in due proportions; and at the same time be sufficiently porous to allow water to pass down readily and leave a surface dry and firm. A light, mellow, open soil, such as makes a perfect corn soil, is not fit for wheat, nor is a close, tenacious clay soil, although well adapted to grass. In either of the extremes of very light or very tenacious soil the roots of the wheat plants will be lifted and broken off by the action of the frosts in winter and spring, and the plant destroyed.

I do not say that none but lime soils can be made available for wheat-growing, but such soils are more especially adapted to this grain. Sandy and gravelly soils, by liberally manuring and by the use of chemical fertilizers, can be made productive, and no means are more effective than clover and plaster or gypsum.

Good wheat crops are sometimes grown on the granite soils of New England and elsewhere, but the wheat element must first be supplied to the soil before the crop can be grown. Alluvial soils have no distinctive character, but partake somewhat of the soil of the country whence the waters have washed and deposited them. They always contain a large amount of vegetable matter, but are usually deficient in the mineral elements necessary for a perfect wheat-soil.

There is one peculiarity in wheat-growing which pertains largely to the soil, and which is not well explained. It is that winter wheat and spring wheat are not equally successful on the same land. That spring wheat may succeed well on land where winter wheat cannot be grown is no difficult matter to explain; but why spring wheat will not succeed well on natural winter-wheat land is more difficult to understand. Western New York has always been noted as a winter-wheat section, but spring wheat has never been a success here. It has been frequently sown, but fails to produce a fair berry. When winter wheat is fine and white, spring wheat will be shrunken and poor.

Blocked Roads.

We extract the following from the *Rural American*; from a description before the Farmers' Club at Rochester:—

Hon. Heman Glass said that there were places on the Ridge Road where the highway had been contracted to 45 or 50 feet, in which snow used to drift badly, but where the fence had been recently removed on the west side, it had ceased to drift. Some farmers had proposed wire fence for road fences, but Mr. Glass had favored the entire removal of road fences, not only for the prevention of drifts, but also to prevent stock running in the highway. When his road fences were standing, the road was full of cows, pigs and other stock, which slipped into his yard whenever a gate was left open. He first gave notice that his gates would be left open and stock entering his grounds would be shut up, and all owners held responsible. He shut up several animals, releasing them without cost when the owner called for them, which somewhat reduced the numbers running in the road, and two years ago he removed his road fence entirely, since when stock had been kept out of the road, or watched when turned in, and he had lost nothing. Was willing poor people should pasture the road, if they would take care of their stock. Removing fences saves in other ways; saves cost of repairs, and enables one to clean out shrubs, thistles and weeds that flourish under the protection of the fence. Had cultivated and leveled his road-sides so that he could mow them with reaper.

Mr. Ross knew of a man who built a board fence along the road and it drifted very badly in winter. Removed all but the top board, putting wire in their place, and there was no more drifting.

GLEANINGS.

The *Scientific American* states that in some parts of Algeria steam plowing has resulted in an increase of fifty per cent. in the yield of wheat.

The President of the N. Y. Dairymen's Association, as reported in the *American Dairymen*, says: "Canada has certainly improved in cheese, and to-day ranks in Europe as producing better keeping quality than we do."

In many localities where the corn was late in maturing it is feared that the severe cold—20 to 25° below zero—has killed the germ. Seed-corn from the crib should be thoroughly tested before planting-time arrives.

Sugar refiners, it is alleged, by the use of glucose make a clean gain of \$15.72 on each hoghead of sugar they refine, three-fifths of which amount comes from the Government, and two-fifths from the purchaser, who thinks he is buying sugar.

The farmer is apt to consider the seed used as of less account, and to ascribe differences in crops to the amount of manure used. Manure and good seed, good seed and manure, neither without the other, and there will be a most cheering increase in the crop.

American cheese makers shipped cheese to Brazil during the past summer, but were found on their arrival utterly unfit for use, in consequence of the intense heat to which they had been subjected during the voyage, not having been properly manufactured.

The discovery of rich deposits of phosphate of lime in Canada has caused land near the area of deposit to go up in price. Lumbering has been abandoned in some places to cultivate the new industry. England and the continent are large purchasers.

A correspondent writes to a U. S. paper that he has found no remedy so effective for preventing the cabbage-worm from destroying the cabbage as a handful of dissolved bone mixed in the hill at the time of setting the plants, and a handful applied at each successive hoeing.

It is confidently stated by distinguished entomologists that, taking one year with another, the United States suffers from depredations of noxious insects to the annual amount of \$300,000,000. Enlightened agriculturists state that the writings of Dr. Fitch, on noxious insects, saved the farmers of the State of New York, annually, \$50,000.

For ordinary feeding, either to cows, horses, hogs or sheep, I usually put 100 pounds of meal to the same weight of bran. I think a horse will do about the same labor upon this kind of food, that he can do if fed oats in the same ratio, and that 200 pounds of the same mixture are worth more than the same quantity of meal for the ordinary feeding of any of these animals.

Prior to the importation of the English sparrows in Louisville that city was annually so infested with the caterpillars that they devoured the shade trees, and even infested the residences so that they could be swept up by the handful, but since the little sparrows have been imported from England and protected the caterpillars have disappeared.

Straw itself is of much less value than farmers think it. When either rotted or burned it contains a very small moiety of plant or animal nourishment. Its greatest value is as an absorbent to take up and hold ammonia, thus fulfilling a double purpose—keeping stock clean and comfortable, and aiding the retention of manurial gases. Stock fed on wheat or barley straw alone would starve to death. What farmers want is grain; without it we labor in vain. In Britain we find large, plump grain, and large quantities are raised to the acre—sometimes over 70 bushels.

In an address by Ernest T. Gennert, before the New York State Agricultural Society, he says: "It sounds very deceptive when our daily papers tell us we have shipped so many bushels of corn, wheat and other grain to Europe, or so many million pounds of meat, butter and cheese to foreign countries, but it sounds quite different when we learn that the average crop of wheat per acre this year in Tennessee has been four bushels; in Ohio, which was once the garden of the United States, ten bushels, and in the whole United States it has been for many years eleven bushels."