

half a bushel of chopped feed. The results of our system of feeding are very satisfactory. We never have a case of colic among our horses. The great thing is to give a horse sufficient, and to give it regularly. Water? Oh, we give them water when they want it! Our horses will balk for it. If they are loose, they will go to the hydrant. We had a horse once that used to go to the hydrant and turn on the water for himself."

Fancy Prices of Live Stock.

A farmer called on us a few weeks ago and asked us to advise our readers to commence the raising of pure-bred Shorthorns on a small scale and gradually work up. He related his experience in the matter, and claimed that he made several hundred in the transactions of the past few years. We rejoice at his success, and he will always find us ready and willing to advise our readers to embark in any enterprise that will be to their advantage. But just here a word of caution is necessary. A few days afterward, we attended a public sale of Shorthorns, and the owner informed us that he lost one thousand in the enterprise. If we had advised him to go into the business, he would not have spoken very flatteringly of our judgment. While admitting that some farmers will make a success of almost any undertaking, while others just as invariably fail, there are other considerations which should not be overlooked.

The most important feature of the question is the ability to draw a sharp line between the market price and the intrinsic value of a given animal. It is well known that the market price is governed largely by the degree of prominence to which the breed is brought, and this may vary very materially from the intrinsic value, viz.: the worth of the breed based upon its actual performance. If, now, another breed is brought into greater prominence, the market price of the former declines, although its intrinsic value remains the same, and the loss on the whole deal is usually as great as the gain; neither the world nor the farming community becomes enriched, money merely being transferred from the pockets of one portion of the community to those of another. The dupe may have gained in that he has learned a practical lesson, while the successful speculator has lost in that his impetus for speculation has been stimulated.

We cannot help admiring the ability of the man who can foresee all these events, and whose speculations are almost invariably successful, but it hurts us to think that so many innocent farmers are tempted into the ring, whose only gain is a practical lesson in prudence. We would prefer a different state of affairs. We should like to see the difference in the market price of breeds bear a close relation to their intrinsic merits, by which rule both the buyer and the seller would gain by all the transactions. This event can only be brought about by an enlarged and systematic mode of testing, conducted with scrupulous honesty by men specially qualified for the business, and an increased effort on the part of our farmers to grasp the situation. The educational advantages would be immense, and the system would effectually put an end to the feverish state of the farming community incident to the prevalence of wild theories of stock speculators.

I would not be without your paper on any account, as I consider it a most valuable acquisition to any man's library.—REGINALD GEORGE ROGERS, Headingly, Man.

Garden and Orchard.

The Orchard in Winter.

When the work is very pushing during the summer season, there are some orchard jobs which can be profitably postponed until winter. With reference to pruning, a practical orchardist said, "Prune when your knife is sharp." This means that there is no special season for pruning, and winter, especially towards spring, may be taken advantage of in this branch of orchard work. To do the work properly requires skill and time, and when performed in winter, the branches cut from the trees can also be removed from the orchard, thus saving valuable time during the busier seasons. The work is not unpleasant on mild days when there is snow on the ground. Pruning in very cold weather should not be undertaken.

Another class of work which can be profitably done is manuring and mulching. If the orchard is in grass, well-rotted manure should be applied, and it may be spread on the snow from the sleigh. If the ground was plowed in the fall, without the intention of sowing a crop in the spring, coarse manure may be applied, which will act as a mulch and a fertilizer. If the orchard is located in a warm soil and has a southern exposure, so that the trees are apt to blossom too early in the spring, thereby being exposed to late spring frosts, it is advisable to place a mulch around the trees over the snow. This mulch will keep the snow from melting rapidly in the spring, thus keeping the soil cool and preventing too early a growth of buds.

Influence of Forests on Temperature, Moisture and Health.

Dr. Ernst Ebermayer, Professor of Forestry in Bavaria, states that for five years observations have been made in the kingdom of Bavaria, at seven different points, respecting the influence of forests on the temperature and moisture of the atmosphere, on the evaporation of water, and on the quantity of rain-fall, etc. The facts are based on five thousand different observations made during the years 1868 to 1872, with the help of instruments most ingeniously constructed for that purpose. With these twice every day, at fixed hours, and at all seven points, the temperature of the soil was measured for comparison, in the forests as well as the open fields, at the surface and at a depth, respectively, of one-half, one, two, three and four feet. According to these, the mean annual temperature of the forest soil is on an average, twenty-one percent lower than that in the open fields, and the mean annual temperature of the atmosphere in the forest is on an average ten percent lower than that in the open fields.

In regard to the effects of forests on the general health, Hon. H. Seymour says that the effect of forests upon the general healthfulness of the State is great. The philosopher Boyle long since stated that in the Dutch East India Island of Ternate, long celebrated for its beauty and healthfulness, the clove trees grew in such plenty as to render their product almost valueless. To raise the price of the commodity, most of the spice forests were destroyed. Immediately the island—previously cool, healthy, and pleasant—became hot, dry and sickly, and unfit for human residence. It is known that the

general clearing away of forests in this country has had a tendency to raise the temperature in summer.

Dr. J. D. Hooper, of the Royal Kew Gardens, says that the presence of forests plays a most important part in storing the rainfall, and yielding up gradually to the streams a continuous supply of water. Moreover, the rain is retained by forests on the surface of the ground; it gradually permeates to the subsoil, and so feeds the underground water bearing strata upon which springs and wells must eventually depend.

Frozen Apples.

It is the general opinion, as a writer in the Ploughman remarks, that an apple once frozen is of little value; but this is not the case if it does not thaw too rapidly, and is not disturbed until the frost is entirely out. When it is discovered that a barrel of apples has frozen, the usual practice is to remove them to a warm place; and sometimes they are taken out of the barrel, and plunged into cold water. This is all wrong. When an apple is frozen, it should be left undisturbed until it is very certain that the frost is all out of it. If the apples are in an open barrel or box, they should be covered over, so as to keep them cool and in the dark; but, in doing so, care should be taken not to touch the fruit; for, wherever a frozen apple is touched, it will make a soft place. In fact, the simple rolling over of a barrel of apples will ruin it. In freezing, apples shrink so much that a barrel will not be full by nearly a peck. In consequence of this, rolling a barrel over bruises every apple; and every bruise will show when the apple thaws, and will soon begin to decay.

When apples are frozen in tight barrels, if they are not started until entirely thawed out, it will not injure them in the least, unless they chance to be in the open air, or where they will suddenly thaw out. When under cover in a tight room or a cellar, it frequently requires several weeks for them to thaw out. The second time an apple freezes, there is no danger of injury; but, under favorable conditions, an apple may be frozen and thawed three times without injury.

If an apple can be frozen in November, and kept frozen all winter, it will come out in the spring in the same state as it was in, in the autumn: it will not ripen while in the frozen state. Baldwins frozen the first of December, and kept frozen until the middle of March, will be too hard to eat the first of April, and in May will be about as ripe as they will be in January when not frozen.

Cider Vinegar.

The best of all is the good old fashioned cider vinegar. Formerly this was the only kind used, but since the manufacture of vinegar has become better known, it can be made so much cheaper that pure cider vinegar is almost one of the things of the past. Although the process of its manufacture from cider is so simple, yet few seem to thoroughly understand it. All fruit contains more or less sugar, and what appears most strange, some of the sourest fruits contain the most sugar, while the sweeter ones may contain very little. This is caused by the sugar being concealed by the stronger acids of the fruit, while in the sweeter