

greater susceptibility have died, but those that do survive are equal in value to all of them beforehand.

Fall Fair Observations.

It is opportune, now that many of the rural fairs for 1906 have passed into history, to record some of our experiences, by way of impressing upon ourselves conclusions arrived at when the fair fever was in our veins, and by way of sharing with our neighbors what we have discovered.

(1) It is wise to have all judging done according to a known standard, as far as this can be done. For instance, at one fair the butter was judged according to the following standard: 45 points were allowed for flavor, 25 for grain, 15 for color, 10 for salt, and 5 for finish. A card was placed along with each exhibit, every exhibitor being in this way made aware of her strong points, or of the features in which her butter was regarded as lacking. This method of judging was found very satisfactory in this department. Why should it not be extended to other classes, such as provisions and cattle and horses and fruit? The day is past when a judge gives satisfaction who walks round and around the exhibit, wrapt in an air of mystery, and who finally utters himself, "Well, I guess that one has it." Yes, "that one" has the prize, but the judge can give no reason for his award. The score-card serves as a guide, and is a far better record than memory. Further, would it not be well to indicate the standard sought for in the prize-lists issued to patrons and members? To those that argue that the score-card would involve a deal of additional cost in printing, our reply is that nothing is dear that gives adequate returns on the amount invested. Then, is there not good work for our Fairs' Association in this particular? Should a number of fairs give this matter favorable consideration, money may be saved by having the cards printed in quantities.

(2) The directors in charge of each department should be on hand early to see what space is assigned for each class of exhibits. If a little pains be taken to record the space required for each class this year, it will be a helpful suggestion for the next fair. Printed cards were used this year at one fair that indicated satisfactorily the space set apart for the various exhibits. Exhibitors found this a great convenience. This, to some people, may seem a small matter, but it contributes not a little to the convenience of exhibitors, judges, directors and spectators.

(3) In case of one-day exhibitions, it is imperative to have plenty of judges. As far as possible, each class of exhibits should have its own judges, thus giving ample time for careful inspection and a fair decision.

(4) An exhibition is better if being run on the time advertised. The directors and judges should insist on this, as it would save a deal of annoyance to both exhibitors and spectators. The hour for judging, say the various classes of horses, should be indicated in the prize-lists, and carefully adhered to.

JAMES ANTHONY.

Wentworth Co., Ont.

Warm Separator Milk for Pigs.

A question sometimes asked by those interested in hog-feeding is whether warm separator milk is injurious to pigs. Following are the opinions of two American feeding authorities:

Prof. Wm. Dietrich, swine expert, of the Illinois Experiment Station.—"There are no experiments on record to test this matter, but I see no reason why the warm milk from the separator should in any way cause trouble in pig-feeding. Warm milk is the natural food for pigs, and I think the trouble arises from some other cause. It may be that the scouring and running down in flesh, sometimes complained of, is caused by sudden changes in feed, such as, for instance, change from cold, sour skim milk to warm, fresh, skim milk. The skim milk in either form is good feed, but it will not do to change from one to the other very suddenly. Another cause of the trouble may be that the pigs are being fed too much. Sometimes people think that when the cream is taken out of the milk there is not much left that is of any value, and young animals are fed very liberally and often overfed, and this becomes a very serious matter. The skim milk has relatively more protein than whole milk, and a comparatively small excess of protein in the system will very likely bring about the conditions above mentioned."

Prof. H. R. Smith, Nebraska Experiment Station.—"I do not believe there will be any effects from feeding warm separator milk if it is supplied in a limited quantity, as it should be. Some farmers make a mistake in feeding too much excess. In our experiments we use three pounds of milk to one pound of corn meal. You have perhaps noticed by the Cornell (New York) experiments that much more than this quantity of milk is less satisfactory. I can readily understand

that, in extremely warm weather, when pigs are suffering from the heat, as such animals do, warm milk would be more injurious than cold milk. We know that excessive heat is conducive to indigestion, as when animals are overfed during hot weather, or when they are given too much exercise on a full stomach. Under ordinary conditions, I should be very much surprised to have ill effects from feeding warm separator milk, unless the same is badly contaminated. In that case it would be nearly as injurious cold."

We doubt whether either of the Professors has struck the mark. Experiments some years ago by one of the New England stations, indicated that sour milk is better than sweet milk for pigs. This accords with our experience and that of most men with whom we have discussed the subject. Warm separator milk would be sweet, hence the difficulty. The advice offered above, viz., to limit the quantity of milk and to avoid radical changes in the condition of the feed, is good, but we recommend our readers to let separator milk sour slightly—not excessively—before feeding to hogs.



Hollywell Genius.

Yorkshire boar. Winner of first and champion prizes in England, 1906.

THE FARM.

Rural New England Prosperous Again.

According to bulletins issued by the Department of Agriculture at Washington, New England agriculture is decidedly on the up-grade, farm land being now so much in demand that it is difficult to get free or cheap land for cultivation. The bulletins, which were prepared by George K. Holmes, Chief of the Division of Foreign Markets, are on the subjects of "Changes in Farm Values" and "Local Conditions as Affecting Farm Values" (Bureau of Statistics, Bulletins Nos. 43, 44), and give a comparative table showing the difference in the average real-estate valuation of farms by the acre in the various States and Territories in the five years since 1900. In the New England States, farms of medium equipment have jumped in value as follows: Maine, from \$20.52 in 1900, to \$23.13; New Hampshire, \$38.93 to \$41.18; Vermont, \$20.68 to \$23.23; Massachusetts, \$41.29 to \$45.47; Rhode Island, \$39.63 to \$40.65; Connecticut, \$44.70 to \$46.81. The advance in some of the other States is much greater, that of Illinois being from \$54.83 to \$75.31, and of New York from \$43.58 to \$51.51.

Lightning-rod Statistics.

Editor "The Farmer's Advocate":

Regarding a question re lightning-rods, appearing in your issue of Oct. 18th, we have reports this year of 106 buildings struck by lightning. Of these, 61 have been personally reported, and the remainder are taken from newspaper reports. Of the 61 personally reported, only one building was rodless, and the rods on it had been up twenty years and were out of repair, being broken off some short distance above the ground. Of the remaining buildings, we cannot say whether they were rodless or not. Since 1901 we have reports of 354 buildings being struck, of which 186 were burned and 174 only damaged. The number of rodless buildings struck was 11, of which only 4 were burned, on three of which the rods were stated by the owners to be out of repair. On the fourth the rods had just been installed, and no consideration had been made as to whether they were properly put on, but presumably the agent was so that there were no flaws in his work.

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Fall Plowing.

With the favorable weather prevailing in this season, plowing for spring crops should be well on the way by this time, and should be pushed to a finish as soon as practicable, as, after the first week of November, frost sufficient to stop the plows is liable to occur at any time.

In the case of most classes of soils, and especially of stiff clays and clay loams, it is essential to best results that the land intended for spring grain, except, perhaps, sod to be inverted for peas, should be fall plowed, and thus exposed to the mellowing influence of the winter frosts. Early-sown grain crops almost invariably get the best start and yield the heaviest harvest, and it is important to have the land in the best possible condition to admit of early-spring cultivation and seeding. To this end, not only the plowing, but the ditching also, should be attended to in good time in the fall, in order that all surplus water may have free course to get away off the fields early in the spring. Open ditches and water furrows are a necessity on most soils where tile-draining has not been done, and it pays well to spend a little extra time at this season in making the watercourses ample and clear. In cases where the natural fall in the land is not sufficient to carry off the water, and there are no underdrains, a good plan is to use the road scraper to lower the outlet, before plowing in the fall. By this means great improvement may be made in the draining of low, slack places where water would otherwise lie late in spring, delaying the cultivation and seeding of the field for a week or two after the main portions are in suitable condition. The same delay often occurs in the ripening of the crop on these low-lying places, delaying the harvesting of the whole field, some portions being dead-ripe and liable to loss by shelling before the backward portions are ready to cut. These are some of the little chores that are liable to be neglected, and which, if not attended to before winter sets in, may cause considerable loss in the crop returns of next year.

Removing Stumps.

Varying success has attended the attempts to remove stumps by burning them out. The method is as follows: Bore a hole from one to two inches in diameter, according to the size of the tree, and eighteen inches deep, into the stump. Into this put from one and a half to two ounces of saltpetre, fill with water, and plug tightly. After these have stood six months, open, and pour into each hole a gill of kerosene oil, and set fire to it. I tried the above method, but without success. Well knowing the inflammable qualities of saltpetre and kerosene, I thought that there must be some way to use these commodities to advantage in getting rid of stumps, so I tried again. This time I bored three-quarter inch holes in the top of some stumps—one hole to about six inches of surface—six inches deep, and filled them with saltpetre. I did not plug them, but put in water at the time of filling them. I bored some more stumps in the same manner and filled them with kerosene; part of them were plugged and part of them were not. At the end of six months, when it was dry and favorable, the stumps were fired. The kerosene stumps burned but little; the saltpetre stumps burned a little longer, but went out before they were half burned, so that was in favor of the saltpetre. Some stumps that were fixed with each preparation were not fired. These were filled with saltpetre and left open, and at the end of six months they were fired. Those that had saltpetre in burned clean; those that had kerosene and then saltpetre in did not burn so well. Since then, when I have large stumps to get rid of, I put saltpetre in them, fill the holes up again in six months, and in six months more they are ready to burn; and the results have been very satisfactory. For stumps fourteen inches in diameter or less, I use dynamite. I used a half a pound to a stump. I take a 1 5/8-inch auger and put a shank onto it four feet long, to bore holes under the stumps with just boring dirt. There is no need to bore the wood, but bore to locate the charge close up against the bottom of stumps. Use 18 inches of fuse; no tamping is needed. An occasional load will fail to go, and the fault has always been with the fuse. When I have any doubts about the fuse going, I tie a couple of feet of binding string to the dynamite, so I can pull it out and put in a new fuse; but in any case, should a load fail to go, let it alone till next day, and then, if there has been no string put on it, and it will not pull out by the old fuse, bore and put in another load close to it, using caution not to touch the load that is in there with the auger. For a stump six inches in diameter, one-fourth of a pound will be load enough. Sometimes a stump will be blown out clean, and usually a team will pull out what is left. One can locate a charge under the center of the stump, but there are stumps whose point of resistance is not under the center of the stump, and in that case the load would be likely to blow out one side, and then there would be