

seek the equilibrium, it is morally certain that this period of depression will be succeeded by one of prosperity.

It does not follow that abnormal prices, which characterise what may be denominated the *crash* periods in the history of certain breeds, will ever be obtained. It is clearly undesirable that this should be so. But it is morally certain that *paying* prices can be obtained for good animals of all breeds of live stock that have merit in them through all time.

We are frequently interrogated as to whether it will pay to grow beef now, as to whether the profits of dairying are not more comparatively, and if grade animals do not bring more profit than pure-breds? We have but the one answer. It is this: *Grow what nature has best adapted you and your lands for producing, giving due consideration to market facilities.* If you have proved a success in breeding pure-bred stock continue to breed it, but take what prices the market of to-day will bring you. Because you could get \$400 for a shorthorn bull calf ten years ago, that is no reason why you should keep him till near three years old to-day before you accept \$100 for him. It would be clearly more advantageous to accept the \$100 when he is nine months old. Similarly, it is much better to accept 4½ cents per pound for beef in March than to keep the same until June and then sell for 4¾ cents.

We would guard our readers against the temptation to cast aside an interest too hastily that has proved the main source of their gains in other days that they may embark in another in which they are altogether unskilled. A few may succeed in such a course, but only a few. Most men have to be content with success in a single line in life, and those who aim at more than this oftener lose than win. It is usually much better to keep on in the old lines, but always prepared for accommodation to the varying conditions of demand. The failure in the end of some of those who have persistently adhered to the breeding of one line of stock has usually arisen from adherence to old-time prices, when these could not be realised any more.

That some lines of pure-bred stock are selling for prices that are very moderate gives no ground for complaint, providing the prices are paying ones. It is to the advantage of the many that it is so, for it brings good animals within their reach.

We rejoice in the progress that the dairy interest is making in this and other lands, but we do well to remember that butter, milk, and cheese are not more essential articles of diet than meat, and that the growing tendency of our farmers to drift into dairying will some day produce the contrary tendency: to drift from dairying into meat production. Those extending the lines of their live stock operations at the present time should probably look in the direction of dairying, but those already entrenched in the meat-growing industry should look again at their entrenchments before abandoning them for new ones not yet erected.

Two things should never be forgotten by the farmers of this country. The first is that deterioration of land is always more or less rapid where meat production is not given prominence, and the second that there must be retrogression in the live stock generally in any country where the production of pure-bred live stock is not an important industry.

Dairying is far in advance of grain-farming for sustaining the land, but it is not equal to meat-growing, because of the good food being less rich in valuable manure-producing constituents, and because more of these are extracted in making milk than in making meat. The meat-grower will always be the greatest producer of good crops, other things being equal.

The world can no more do without pure-bred stock of the finest types than it can do without the binder. Nearly all the improvements made in live stock in the world have been made since the immortal Bakewell began his experiments at Dishley Hall, not much more than a century ago. These experiments have accomplished a greater material good for English-speaking peoples than the cannons of Lord Nelson at the Nile. It is not to the credit of the Anglo-Saxon race that this benefactor of the world is to-day without a monument overshadowing that of the heroes of the battlefield. The secrets which he unveiled can never again be ignored in the practice of rearing a superior class of stock, and those methods cannot be systematically carried out in the absence of pedigree.

The outlook for the immediate future in many lines of stock-breeding is reassuring at the present time. Good heavy horses from pure sires can be sold across our southern border faster than they can be raised, and the same is true of carriage and road horses of the proper types. The market for pure-bred swine has not been better for years; Shropshire sheep are at springtide, and there has been a revival in the trade in the long-woolled specimens. The same remark applies to the dairy breeds. Only beef-producing cattle are not bringing high prices, but they bring paying prices when rightly bred and reared and sold.

The extension of the ranching interest, which led in part to the abnormal prices of recent years for pure-breds, is in turn depressing the price of meat. But this cannot remain so long. With the ranches of the northern continent well, if not over-stocked, and its population increasing at the rate of more than a million a year, the day is not so very far distant when exportation must cease because of the unsatisfied demand at home. An increase at the rate of one million a year would in about thirty years add to its population an increase equal to that of Britain at the present time, a country into which many lands are emptying their surplus.

Let the breeders of pure-bred stock increase their efforts to produce specimens of the highest types, not sparing those that are inferior, whatever be their lineage. Let them sell for prices which the market will furnish, and at the proper age for selling; let them demonstrate that the results of their efforts are unattainable by the breeders of grades, and there can be but one result, that is, ultimate success of the most gratifying kind.

Rambling.

THE DOMINION EXPERIMENTAL FARM.

Knowing that but few of our farmers are aware of the magnitude and value of the work being done in experimental agriculture at the Central Farm at Ottawa, and feeling that a brief account of this season's work, as seen by us, would perhaps prove instructive, and at least awaken an interest in an institution desirous of advancing our agriculture, we determined to visit it in person. This we did, spending a very enjoyable and instructive afternoon under the guidance of the several officials in charge; and it shall be our aim to transmit to our readers, though we can only do so in part, some of the pleasure that fell to our lot.

Though this farm has been in existence for only a few years, under excellent and energetic management and liberal encouragement from the Government authorities, rapid progress has been made in not only fitting the farm for the work ahead, but also much has already been done in shedding light on the many dark problems that perplex the agriculturist and make his

calling more than an art, and worthy of the name of a science. Too much praise cannot be meted out to the director, Prof. Saunders, and his efficient staff of co-workers, Profs. Fletcher, Shutt, Hilborn and Gilbert for the vigorous way in which they have labored in their different spheres of action. When we consider the weight of work resting upon the director in superintending the labors of the many other provincial farms, it is remarkable how rapidly the Central Farm has been brought into its present high state of cultivation. A matter of three years ago what is now a farm of four hundred acres, growing an excellent crop, was then given over to swamp, rough clearing, and bush.

In company with Profs. Saunders and Fletcher, we inspected a great many of the grain plots under experiment. As this has been a very favorable year for rust in all sections of Ontario, the Central Farm has not been exempt from its ravages, and this in itself influenced the appearance and growth of many of the grains. While some seem to be more susceptible to the attacks of the rust than the others, yet none of the varieties have completely escaped; and the difference in the degree to which they are affected may be largely accounted for by the difference in situation, whether high and dry, or low and damp. About 500 plots of grains of all kinds are being tried. Of all these no definite data could be collected until after harvest, when the straw and grain of the several grains are weighed. Speaking in general terms, of the wheats the most promising variety, all qualities considered, is the White Russian. Another variety, Williams' Red Fife, is a very heavy bearer, of good straw and with compact heads, ranging from 5 to 7 inches in length. These two are the favorites, the others, so far as known, possessing but few attributes to recommend them for our cultivation. Besides the testing of varieties of grains, another very important line of work came under our notice, viz., discovering old varieties new named. The last few years a seeming new variety of wheat, called the Eureka, was put upon the market which, it was claimed, possessed many superior qualities over all others. It has, however, proved to be the Red Fern under a new name. The resemblance is unmistakable, as could be easily seen by comparing the plots growing side by side. Of the many varieties of oats, the leading ones are the Welcome and Carter's Prize. They were harvested at the time of our visit (Aug. 14), and the Welcome has yielded the heavier of the two. Another variety, the White Wonder, looked well, and proved on inspection to be a very plump oat with a good growth of straw. The Giant Yellow, a French side oat, promises also to be a heavy producer. Of the barleys, one of the foremost varieties is the Danish Chevalier, two-rowed, with firm straw, good head, and well-filled kernels. There are also a couple of Indian varieties of the two-rowed hullless barleys that bid fair to prove of value. One variety, in particular, is very early, and of good quality in respect to both straw and grain. We saw an excellent plot of the Saale variety, two-rowed, with very heavy plump grain and short stiff straw.

A few of the plots were planted with single grains, one foot apart, in rows. When we saw them, the ground of all the plots was completely covered with a splendid crop. One clump in a plot of oats chosen at random, and by no means the largest, contained 49 stools, and most of these bearing heavy heads. This clearly shows that in the matter of seeding, our methods, where two or three bushels per acre is the rule, entail a great waste of seed. Thin seeding with better cultivation appear, from these experiments and those of last year, to be the most economical way of securing the best results. Passing down the other