

if several sorts are mixed than it will if only one variety is planted. This idea is wholly without a reasonable foundation, and the more farmers read and study, the less it will prevail. In most cases the use of mixed seed is due to a want of thought and care, rather than to any belief that it is superior to that which is pure. Instead of being better, the impure seed is far inferior to that which is unmixed. To any one who will think carefully upon the subject this will be evident.

But the principal reason why strict purity of seed should be secured and preserved may be found in the fact that this would enable the grower to obtain quite an increase of the price which his mixed grain now commands.

PRODUCTIVENESS.

This is another quality which should be sought in selecting seed. There can be no doubt that some seed possesses this quality in a high degree, while other specimens, which to all appearance are just as good, are very deficient in this respect.

This point has not received the attention it deserves, and many farmers are slow to believe that there is any particular difference in seed as far as its productive powers are concerned. They know that certain trees are more fruitful than other specimens which are as favorably situated, and they cannot escape the conviction that there is a quality of productiveness which is inherited by different trees in different degrees of intensity. But when they are told that plants also possess this quality, and that the yield of a crop will be largely determined by the degree in which it has been inherited from the seed, they are incredulous. But sometimes when in adjoining fields, in which the soil is nearly alike as soils can be, the same varieties are planted, and there is no difference either in the cultivation or the manuring, but a great difference in the quantity of grain which is harvested, they are almost compelled to acknowledge that there is a difference in the productive powers of seed which belongs to the same variety, but is produced by different specimens of plants.

Careful experiment has proved to the satisfaction of all unprejudiced parties who have studied the results, that the quality of productiveness is strongly developed in some plants, and possessed in only a slight degree by others, and that the plants communicate these characteristics to the seed which they produce.

THE SELECTION OF SEED.

It is only by a patient, careful, and wise selection of the plants, or roots, or bulbs, that the finest seed can be secured. The careless, haphazard way in which many farmers and gardeners save the seed which they plant, accounts, in a great measure, for the poor quality of the seed itself and the light yield of the crops which they obtain therefrom.

Good seed is not produced by every plant, and if no care is taken in selecting the plants for seed, the choice of many inferior ones will be inevitable. The average product of an ordinary field is very far below what should be taken as a standard by which to measure plants for seed. The very best plants which can be obtained are none too good for the production of seed. The man who saves the poorest part of every crop for seed will soon have very small crops. When the average product of the field is saved, the yield does no more than hold its own and keep up the average. It is only when the finer plants are saved for seed that the yield increases and a manifest improvement of the quality is secured. Even then, if there has been no careful guarding of the plants during the period of their growth against the various adverse influences which inevitably surround them, and no thorough culture has been given, the quality of the seed secured will fall far below the grade which might have been obtained.

During the next two months farmers should carefully watch their growing fields. Before the grain is cut is the proper time to select the seed to be used next spring. Seed grain should be chosen from the best grown in a rich and fertile field. Spots will be seen here and there in such fields where both grain and straw are superior to that found in other parts of the field. From these selections should the seed be chosen, allowing it to

become quite ripe, and when cut put by itself. It is wise even to make a careful selection from this already select grain before threshing. All should be severely screened and fanned. If this course was intelligently followed by all Canadian farmers the average yield of our cereals would soon materially increase. When it is desirable to shorten the period of growth of any sort, that is to render it more early, the portions of the crop which ripen first should be cut and kept for seed, but should be subjected to careful cleaning. In saving seed do not on any account select for crops that of a mixed character. It is very important that seed grain be pure. Much valuable work can be done towards accomplishing this end while the grain is yet growing. At intervals before harvest farmers should go carefully through their field, removing all foreign sorts. This course must be followed to maintain the purity of any sort. Especially would we direct the attention of our readers to their two-rowed barley. Now is the time to remove the six-rowed which is growing among it. This must be done in the case of seed grain, and should be also done in the case of that intended for shipment to European markets.

The Walmsley Mill.

There is no machinery on the farm that has served a better purpose than the wind-mill pump. The binder and mower fulfil their part for a short season, and are then idle for the rest of the year, but the wind-mill is required each day in the year. The work of pumping by hand is not only irksome, but by this plan of watering stock there is a lack of quantity and regularity. Many improvements in this class of machinery have been effected in late years. Among those that are giving satisfaction to stockmen are the wind engine built by J. F. Walmsley, Woodstock, Ontario, which is of the Halladay pattern, the chief characteristic being that it is a self-regulator, and in gales or storms works quietly without danger to itself, while, when the sails are furled, it presents the least possible surface to the wind. Judging by the testimonials received from men with whom we are acquainted, this machine has given perfect satisfaction. All users speak in the highest terms of it. The Halladay mill as built by Mr. Walmsley is of different sizes, so that those who wish a mill of sufficient capacity to drive a grind or cutting box can obtain it, while those who only need pumping done can choose a smaller or less expensive machine. The Halladay is very powerful and easily driven. By means of a regulator the operator can gauge it so as to command any speed or power required. If the wind increases, less surface and a more acute angle is presented, which gives less power. Again, as the wind decreases, and a flatter surface is presented, the power increases correspondingly. Thus the machine has a perfectly balanced governor that adjusts itself to the currents of wind, be they heavy or light. Self-oiling boxes are another desirable feature, so that when the mill is once regulated it is self-governing, self-oiling, and cannot freeze up in the worst weather. The prices asked for these mills complete are very reasonable.

Seventh Volume of the Dominion Shorthorn Record.

The seventh volume of the Dominion Shorthorn Herd Book has reached our office, for which we are indebted to Mr. Henry Wade. Three thousand pedigrees of bulls and 1,956 of cows are recorded in this volume. Bulls number from 11,101 to 14,100 inclusive; cows from 16,401 to 18,356,—in all 4,956 pedigrees. The book is in advance of the former volumes, in that the pedigrees are given complete in this book. When abbreviated, the remainder of the crosses and foundation are referred to another page. The history of Shorthorns (imported) is continued. Rules of office, rules of entry, lists of members, breeders, owners, directors and officers, and indices of the bulls and cows imported and bred in Canada, are all given.

What Constitutes Judgment in the Show Ring.

The show season again approaches us, and it would be well if he who has accepted, or is about accepting a position as judge, would consider that through acting in this capacity a man is looked upon as the schoolmaster of the hour. In the majority of cases the fair boards have this season appointed the judges on stock from the list of names suggested by the different breeders' associations, therefore the onus will now rest on the breeders themselves as to the capability or incapacity of those acting in the ring. It is to be hoped that the gentlemen who have thus had the work placed in their hands, will endeavor to do justice in the departments they have been selected to pass their opinions upon. Not a few men go into the show ring without any defined idea of what they intend to do.

Then, should they prove inconsistent in placing the awards, which too often is the case, they are unable to speak in their own defence, or yet in favor of the animals they may have wrongly placed. What pleases the eye appears all right to many an onlooker, but if men are really to do justice to the animals brought before them, they should make a study of the characteristics which they intend to place most value on, and base their awards accordingly. There can be little doubt that the wants of the general public are now more studied by the expert judges of the day. Take, for instance, beef cattle. Great attention is now rightly paid to the quality and thickness of flesh on the loins, back, crops, and rumps. A really good judge does not wish to give a prize to an animal which shows excess of beef in the boiling and inferior parts of the carcass. Breeders should also be alive to their interests in keeping the wants of consumers in view. This, together with the criticisms of the agricultural press, will do much to bring about a practical state of affairs. But the useful qualities might still be pushed more to the front. At any ordinary exhibit of the beef breeds, why should not the udder of a cow or heifer receive more attention at the hands of the judges? We have not yet arrived at the stage of calf rearing when milk is superfluous. The milk producing powers of a cow of any breed add very largely to her value. Beef, all beef, nothing but beef, sounds all very well in the ring, yet the calf nursed by a heavy milking dam will hold its own against all that scientific feeding can do.

Again, in the milking breeds pure and simple, be the cow Ayrshire, Jersey or Holstein, how often are the prizes awarded because of other qualities. It is common enough to see just a fairly good milker win over an exceptionally good one, the structural points being only slightly in favor of the former, with probably the addition of high show condition. Bodily structural points should not be neglected, but milk production should be the chief consideration in a competition of this kind.

Scotchmen are considered the most practical people in the world, yet the Clydesdale breeders of that country have paid such attention to legs and feet, or rather quality of bone and pasterns, that they have often lost sight of some of the most essential points in draught horses—size and weight—qualities which are particularly required in the geldings purchased for heavy work in the streets of American and British cities.

The breeders of the Shire horse have all along paid due regard to the body of the horse, though they have been accused by Scotchmen of passing as correct round-boned legs, upright pasterns and indifferently shaped feet.

The weight-giving width and depth of the Shire horse has already made him many friends among the breeders of the West, who claim that he transmits this quality more certainly than any other breed.

Practical utility should be the first aim of every breeder of improved stock, always paying due regard to appearance. Unless a judge enters the ring with some defined idea of the requirements of the times, he will surely blunder when placing the awards.

Reports

We respectfully report of any in their fall vations they are anxious to receive commercial for more kinds of the comparative different sections no pains to of lish full and hearty co-operation. Write us so later than the how the differ

Letters

On page ADVOCATE we Sylvester. I and sowed a we have received farmers, asking planting, cul answered as f of London, I for the seed:

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Writing Hon. O. C

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This is

April 25th