

improving of plants by breeding was being brought more and more into prominence, as the animal breeder's philosophy was being practiced. DeVries' theory had done much to establish new varieties, by starting investigators on a scientific hunt for mutants. By carefully worked-out figures the lecturer showed how infinitesimally small the cost of carrying on experiments is when compared with the enormity of the results obtained. He showed that the subject demanded the attention of our greatest statesmen and most potent organizers. Professor Hays urged the importance of successful officers having long terms of office, and showed how baneful was the practice of changing officials in the middle of their work. He illustrated many of the processes of plant selection, methods of planting and harvesting with a series of moving pictures. This was seen to be a very graphic way of presenting to the minds of the audience the exact methods followed, and it would seem that a great deal of good work might be done at institutes and other such meetings by use of such a machine. Bread testing, gluten testing, and hybridization were some of the operations illustrated in this way.

The Hon. John Dryden made a few very interesting remarks in discussing Professor Hays' address. He showed how from small beginnings the Experimental Union had grown to what it is to-day, a great and powerful institution. The enormous increase in traffic carried by railroads, the enormous increase in the banks, are direct outcomes of the improved methods in plants and animals. Experimentation, said Mr. Dryden, pays fabulously. He would most strongly urge the young men to stand by it.

SMALL-FRUIT CULTURE.

In presenting his report on small fruits, Professor

Hutt gave particulars regarding the cultural directions sent out with the plants, and mentioned the varieties



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which had proved most satisfactory with the experimenters in various parts of the Province.

Strawberries have been favorite fruits with the experimenters, and, altogether, 1,415 lots, consisting of a dozen plants of each of four of the leading varieties had been distributed for co-operative testing. Clyde and Tennessee have been the heaviest yielders, while Splendid is one of the best early varieties.

Among the raspberries the favorite varieties have been Marlboro for early and Cuthbert for main crop; while Golden Queen is one of the best yellow varieties, and Columbian the best purple-fruited variety. In pruning raspberries it was recommended to cut out all the old canes after they have fruited, and thin out the new canes to five or six of the strongest. Currants, blackberries and gooseberries were also discussed, and the finest varieties mentioned and best methods of culture indicated. Grapes and apples were sent out last spring for co-operative testing for the first time. The varieties of apples distributed for Northern Ontario were Transparent, Duchess, Wealthy, McIntosh, Scott's Winter and Hyslop Crab. The varieties selected for Southern Ontario were Primate, Gravenstein, McIntosh, Blenheim, Rhode Island Greening and Northern Spy. Most of the experimenters had reported good results with their apple planting.

The annual banquet for the students, ex-students and the faculty was the closing session of the Union.

A pleasing event of this year's Union was the presentation and unveiling of an oil portrait of Hon. John Dryden, ex-Minister of Agriculture for Ontario. It is a life-size portrait, showing Mr. Dryden seated, and was executed by E. Wylie Grier, R.C.A. The expense is made up by contributions of ex-students, who have presented it to the Government to be hung upon the College walls.

The Ontario Provincial Winter Fair.

Canada's greatest fat stock, dairy and poultry show held its 23rd annual meeting in the Royal City of Guelph last week, and scored the greatest success of the whole series of its shows. Never before were so many high-class animals forward, never so large an attendance of visitors, and never so much enthusiasm evidenced by officers, exhibitors and spectators. The most serious question confronting the management now is the urgent need of extended building accommodation, in order to afford a satisfactory display of the increasing exhibits, and an opportunity for the growing crowds of visitors to view the animals in the judging ring, where alone they may be seen to best advantage. A more spacious judging arena for the cattle classes must be provided, and more room for judging other classes, before the arrangements can be considered complete or satisfactory.

Entries broke the records. In poultry they reached nearly 4,000, making the best and greatest poultry exhibition ever held in Canada. The poultrymen are calling for more room, so that the single-coop system may be adopted, thus giving more light on the birds, and providing a more effective display. At present the coops are stacked up two rows deep. Two and a half or three times as much floor space as now allotted is desired for feathered stock alone.

Then there is a feeling in many quarters for the addition of a horse department, as at the Chicago International. While the winter fair is not primarily designed as an exhibition of breeding stock, there is no question but that a good display of geldings, fillies and stallions would be quite in place, and prove a fine drawing card. This department, however, cannot be added without considerable extension of present quarters.

The exhibit in the seed department was good. A feature worthy of note was the exhibits of the members of the Canadian Seed-growers' Association, competing for its special prizes for the produce of selected seed. The general exhibit of corn was also excellent, showing improvement over last year in type and uniform merit. While the exhibit in the Seed Department was not greater than last year, we are promised by those who have it in charge that next year it will be considerably larger and better, various new men having signified their intention of entering the lists. Here again the lusty institution is straining its buckles.

The lecture room was packed at almost every session, and in many cases there were yet others who would have been glad of access. It is astonishing and most encouraging indeed, how the people come here year after year and sit through long sessions, listening intently to the lectures, and to the discussion of vital agricultural topics, such as the hog question, the practicability of the milking machine, the sheep industry, and so on. It is a tribute to those who prepare the programme, to those who participate, and to the audience, which manifests such wholesome thirst for knowledge, and intelligent interest in general questions. As Hon. Nelson Monteith well put it, the Ontario Winter Fair is the crowning agricultural event of the year, and the annual parliament of the lecture room is not the least important feature of the occasion.

An excellent idea put in practice this year was the erection of two partitions on the lower floor, each dividing a side aisle from the seating space. The partitions extended from the door half way to the rear of the room, and served to carry the crowd back, thus distributing it more evenly throughout the room, and preventing the crowding at the doorway, which often used to give passers-by the impression that the room was full, while there were still vacant seats at the back. It also very much lessened the noise that used to disturb the meetings. A further precaution towards the same end was the laying of strips of matting in passageways and under seats.

But a larger room is necessary if the maximum number of people are to derive benefit from the lectures. It is the growing time.

In fact, taking all needs into consideration, the directors of the show have a good case to present to the Minister of Agriculture and the council of the City of Guelph, for the necessary provision for the better housing of this great institution, by odds the most valuable and important of all our agricultural exhibitions, being at once a popular school of animal husbandry, and a means of stimulating enthusiasm in the principal and most important industry in the Province. Too much praise can scarcely be accorded the officers and manager, for the systematic and commendable conduct of the show with the limited accommodation afforded, but with more suitable facilities much better arrangements could well be effected, and steps for securing this should be taken without delay.

The Ontario Winter Fair is a unique institution. While, compared to Chicago International, it is as yet small in stature, it possesses many educational features—such as lectures, carcass and milking competitions—all of which are of great interest and considerable value. One respect, however, in which we were reminded of the larger rival was the weather prevailing. While during the first of the week the days were pleasant and the temperature right, towards the close the sky darkened and the fair concluded on a day of rain and mist and smoke, of the approved Chicago brand.

Demands on our columns by the review of the stock, by the report of the Ontario Experimental Union, which met at the College during Monday and Tuesday of the show week, by the report of the Maritime Winter Fair, and by many contributions on various topics (of which we have been obliged to hold back all but a few of the earliest), prevent a review in this issue of the absorbing sessions of the lecture-room, but the many rich nuggets of information are being reserved for later use.

THE BEEF CATTLE CLASS.

Of the beef cattle classes at this year's show, it may truthfully be said that the best of the exhibits were never excelled, if equalled, at Guelph, and that more uniformity of the approved and desirable type was in evidence than at any former show here, and yet it must be acknowledged that the best are yet too few, and that too much mediocre stuff is in evidence, and the average of quality being far from as high as could reasonably be expected in a Province where pure-bred herds are so numerous, and pure-bred sires of the approved type so readily available for the improvement of the general stock.

"The Farmer's Advocate" has repeatedly registered

its protest against the offering of prizes at this show for cows over three years, a class which from year to year has been largely filled with breeding stock from the local district, not of the first-class, not equal to the average of the breeding stock shown at the fall fairs. The excuse given for this, namely, that but for this class the display of cattle would be too limited, would soon have no ground were more classes, more prizes and more liberal prizes provided for steers and maiden heifers, and especially for young steers, in which department much greater competition might readily be secured by providing senior and junior classes, for it is evident that the younger animals in nearly every section are handicapped by having to compete with others many months older. There should certainly be provision made for more nearly evening the ages, especially in the younger sections, which are the most important and most worthy of encouragement, and which if proper encouragement were given would soon fill the space more acceptably than do old cows that have outlived their usefulness. And the change would be a more sensible use of the funds of the association. Only the principal winners are mentioned in these notes; the prize-list, published elsewhere in this issue, tells of the rating in detail.

SHORTHORNS.—The entries in the pure-bred class, while not as numerous as could be desired, were headed in each of the sections for steers by exceptionally superior animals; the winner in the first section, that for steers over two and under three years, a red, shown by Joseph Stone, of Saintfield, and aptly named Champion, being an extraordinarily good one, and the favorite with many of the ring-side talent for the championship of his class. He was bred and fed by the exhibitor, who was freely congratulated on his work in bringing out so worthy an animal, a model of breed character and type, combining great substance with quality, his weight being 1,940 lbs., and his flesh evenly distributed on all his parts. He was got by a Dryden-bred bull, a son of Imp. Collin Archer, and is a credit to his sire. John Brown & Sons, Galt, were second, with a massive white steer, and Jas. Rennie & Sons third, with the smooth, straight, well-finished Crimson Prince, one of the most profitable class in the show, from a consumer's point of view, as well as showing fine breed character.

In the yearling steer section, of six entries, was found an outstanding first in King Edward, a roan, shown by I. & A. Groff, Alma, bred by W. R. Elliot & Sons, Guelph, and sired by Imp. Lucerne. He is a steer of beautiful type and character, true and level in his lines, and evenly covered with good flesh. The contest for pure-bred champion lay between this steer and the first-prize two-year-old, and while many favored the latter for the place, the judges preferred the younger steer, owing to his compactness and development at so young an age, his weight being stated at 1,610 lbs. The call for steers under a year brought out a capital class of six, five of which were white, and here also a clear winner was found in Allison, shown by Harry Smith, Exeter, a son of Royal Stewart, of fine quality, very smooth and true in his make-up, and promising material for a champion next year if well done for. A good second was White Ribbon, shown by Alex. McKinnon, Conango, while W. R. Elliot & Sons, Guelph, were third with a good son of Wanderer's Star.

There was nothing particularly striking in the sec-