

result high prices will rule," 100 hogs were received in 1919, 6,800 received during the year of those marketed were sold, to the scarcity and high

ing to Dad.

"In their ways that little old move them. Because when they were boys they do it now. Unfortunately, those aims and ideals are to pure-bred stock, but who of the advisability of paying individual. Most young men honor two good breeding in a herd. However, most and if shown that better of farming, etc., pays in rudely at first, but later ck their sons in their en- times and adopt twentieth ys require the restraining n from going headlong into r the foundation upon good herds of to-day have r to son, but some are the ort.

oy, was brought up on a e of several boys the labr ear on the farm until it a money-maker on the ne the boys started farm- n was the only boy left and his father got on well ell in hand, but whenever stock was mentioned the ed by the father. The ity of milk, and the calves o years old although the ts-received by neighbors e but better bred. Tom rge exhibitions in the fall air. The live stock and traction for him than did was taken in watching the ed, but always there was similar quality to show. r one year and saw boys and heifers in a special ould be an exhibitor some et know. Father would ven a calf to fit and Tom e mating of the brindle e too promising as a show road lived a neighbor had recently purchased opnotcher of a bull at ery high figure, at least neighbors said it was. n visited the farm occa- ally and greatly admired new herd sire. Finally neighbor consented to this bull on one of the s from the grade herd ough he made it clear too much money was gested to practice in- iminate breeding. The ntion was to use him on own herd only. Tom's er was somewhat against taking the cow to the hbor's herd sire, but ded and grudgingly hand- ver the service fee of ten ars. Tom picked what he ight was the best cow ne herd to breed to the ured sire. During the wing months a study made of feeding calves, ing after cows, etc., and information gathered r practiced on the stock and. Tom wondered t kind of a calf the grade ould drop. He knew well that if it was no er than the other calves arguments for use of a er sire would be in vain. i, too, a well-built, dy-looking calf was ed for the competition e a fine heifer calf was ed Tom's expectations. s and weeks passed and read of rib and depth of was good to look upon. re frequently found looking its beauty, but loathe to d was entirely responsible. er Tom's care.

at and the fairs were again calf and although there secured the blue ribbon, away the red, but he saw superior youngster. The good blood in the herd

pays not only in dollars and cents, but in general satisfaction. As he was willing that more money be spent on herd improvement he began to realize that his boy was more contented with the farm life and work than he hitherto had been. The boy now has an interest in the farm and is an exhibitor at some of the larger fairs. There are grade cows in the herd, but they are good grades and a few registered cows have been purchased as a foundation for a pure-bred herd.

Many farm boys have gone to the city because of lack of sympathy, on the part of the parents, in their desire for better live stock or the practice of modern methods of farming. Value the boys' opinion and give them a share in the business and nine times out of ten they will double their efforts in keeping the herd in condition and in getting the farm work done on time. There is little incentive to do good work with mediocre stock, and the ambitious boy does not like to see his chums carrying off the prizes at fall fairs when through no fault of his own he has nothing of show-ring calibre to bring out. The farm-bred boy is the best help on the farm, and those inclined towards agriculture should be encouraged to keep the farm and stock in ship shape.

THE FARM.

Standing Field Crop Competition Awards at Ottawa.

The awards in the Standing Field Crop Competition for sheaves, grain and vegetables were as follows:

Sheaves.—Fall wheat: 1, Garfield Kennedy, Bobcaygeon. Oats: 1, H. L. Goltz, Bardsville; 2, A. J. Bushfield, Lyn; 3, W. T. Arkinstall, Dunvegan; 4, A. R. Ascough, Kenora. Barley: 1, A. W. Vansickle, Onondaga; 2, Wm. Cleland, South Mountain.

Grain.—Fall wheat: 1, Geo. R. Barrie & Son, Galt; 2, Garfield Kennedy. Spring wheat: 1, Wm. G. Wood, Maple. Oats: 1, H. L. Goltz; 2, W. T. Arkinstall; 3, S. McMillan, Cobden; 4, J. R. Fallis, Brampton. Barley: 1, Wm. Cleland, South Mountain.

Vegetables.—Potatoes: 1, C. Aymer, Humber Bay; 2, T. K. Aymer, Humber Bay; 3, Cooke Bros., Cataragui; 4, Dunlop Bros., St. Catharines; 5, Jno. McMullen, Cumming's Bridge; 6, J. McFarlane, Brantford. Onions: 1, Brown Bros., Humber Bay; 2, W. H. Trick, Ottawa; 3, Con. McConnell, Aylmer; 4, W. E. Crandall, Ingersoll; 5, C. Aymer; 6, T. K. Aymer. Tomatoes: 1, Geo. Harris, Belleville; 2, W. H. Trick; 3, E. D. Morgan, Westboro; 4, Cooke Bros.; 5, J. McMullen; 6, T. K. Aymer. Celery: 1, C. E. Post, Brighton; 2, Geo. Harris; 3, W. H. Trick; 4, P. R. Bell, Humber Bay; 5, G. W. Bycroft, London; 6, Arthur Cailton, Lambton Mills. Muskmelon: 1, W. H. Trick; 2, Jas. Cox, Ottawa; 3, Jas. Little, St. Catharines; 4, W. S. Thompson, St. Catharines; 5, P. T. Jean, London; 6, G. W. Bycroft. Cabbage: 1, C. Aymer; 2, T. K. Aymer; 3, J. A. Farquharson, Aylmer; 4, John Baker, Cataragui; 5, W. H. Trick; 6, Chas. A. Wilson, Sarnia.

Fruit and Vegetables.

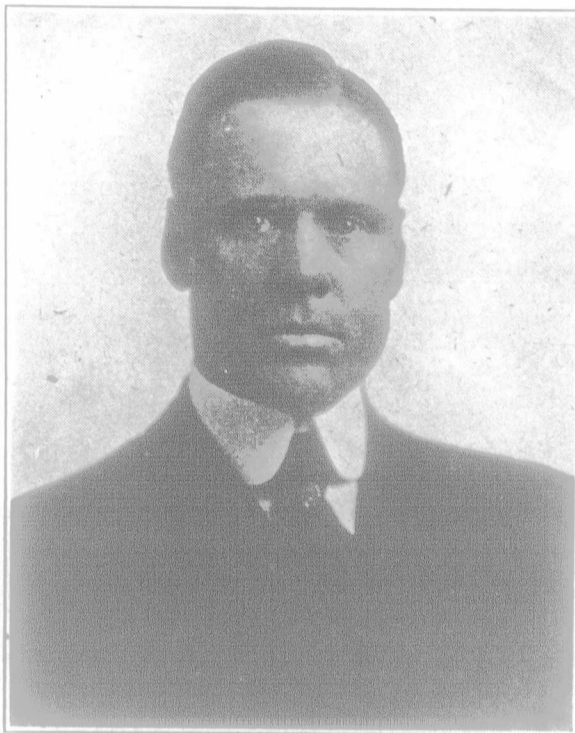
The exhibit of fruit and vegetables this year was very good indeed. There were a number of very attractive vegetable displays, and the quality of the products shown, both in the plate exhibits and in the displays, was satisfactory. It is worthy of note that in fruit as well as in live stock the Central Experimental Farm was an exhibitor and carried off quite a large number of prizes among which were about a dozen firsts. Among the vegetables the competition among the public schools for displays of garden stuff was worthy of a great deal of attention, and the various displays were the objects of much favorable comment by the large crowds entering the Horticultural Building. The awards in the school competition were as follows: 1, Winchester, S. S. 20 (Miss Helen Baker, Teacher); 2, Huntley S. S. 3, (Geo. Moore, Carp, Principal); 3, Stittsville, (Ina M. Hodgins, Teacher); 4, Winchester, (Tillie M. Baker, Teacher); 5, Spencerville, (Blanche Mundle, Teacher); 6, North Gower, S. S. 4, (Ida M.

Brownlee, Teacher); 7, Merivale, (Mary E. Wilson, Teacher); 8, Kemptville, (Bessie Higgins, Teacher);

Poultry.

As usual the upper floor of the Howick Pavilion was fairly well filled with poultry of all kinds. A much larger number of birds could have been accommodated than were entered, but the exhibit was, we believe, satisfactory. An interesting feature of the Central Canada Exhibition every year is the egg-laying competition. This year the competition was held as usual, but the representative of "The Farmer's Advocate" was unable to get the results before it was necessary to leave the grounds. The exhibit of eggs in the Dairy Building along with the dairy products was not large, but there were some eggs of good quality entered in dozen lots and in case lots as well.

THE DAIRY.



J. F. Singleton.

Recently appointed Chief of the Markets Division, Dairy and Cold Storage Branch, Department of Agriculture, Ottawa.

The Salting of Butter.

The fundamental reason why salt is added to butter is to season it to the taste of the consumer. At one time it was believed that salted butter kept better in storage, but it is now known that although salt has antiseptic qualities it has no appreciable effect upon the keeping quality of butter. The addition of salt is also of value from the standpoint of the creameryman, because salt is cheaper than butter-fat and it is usually the object of every creameryman to incorporate all the salt that the market will stand. Every creameryman likes to get as large an over-run as possible, and the addition of a considerable amount of salt makes a larger over-run possible.

The amount of salt that can be added to advantage, however, depends upon the market to which the product of the factory is being sent. It is the practice in Eastern Canada to manufacture butter that is much more highly salted than the butter manufactured in the Prairie Provinces. Nothing illustrates this more clearly than a glance at some of the churning records of the Dominion Educational Butter Scoring Contest. These records show that the per cent. of salt added at the time

the butter is being worked varies from 1.25 per cent. in the case of a Western creamery, to 4 per cent. in the case of a Quebec creamery. The majority of the creameries add from 2.5 to 3.5 per cent. of salt at this time, and secure a final per cent. of the salt in the butter of from 1 to 2 per cent. It is noticeable, however, that the Western creameries, particularly Manitoba, each have less than one per cent. of salt in the butter. Saskatchewan creameries run from 1 to 1.5 per cent. of salt, while the three Alberta creameries run from .7 to 1 per cent. The highest percentage of salt shown is from New Brunswick, where one creamery shows 2.8 per cent. of salt in the butter. There is a strong tendency among Eastern creamerymen to reduce the amount of salt in order to market a milder product which is generally considered to be of a higher quality. As a matter of fact, according to Hunziker, the salt requirements of different markets where salty butter is wanted are salt tolerance rather than requirements. This author who is the manager of one of the largest creamery companies on the North-American Continent, says: "American markets demand a relatively high salted butter, with the exception of the Jewish trade which requires unsalted butter. The English market calls for a butter that is lightly salted, while Continental Europe, especially France, Southern Germany, Switzerland, etc., demand unsalted butter; thus the salt content of butter as regulated by distant markets may vary from no salt to about 4 per cent. of salt. There is not really a very marked difference in the amount of salt which the salted butter trade demands, but it is rather a question of how much salt the trade will stand for or tolerate. The manufacturer of butter naturally aims to salt his butter heavily because salt is cheaper than butter-fat. He will furnish the trade just as highly salted butter within the limitations regulated by the effect on quality as the trade will accept and tolerate. Some markets are more critical and quicker to resent the imposition than others, but none really demand a very highly salted butter."

It is very easy for the consumer to detect any variation in the salt content of butter, and for this reason the amount added should be uniform. Generally speaking, the best method is to use an amount of salt based upon the pounds of butter-fat in the churn. The proper amount of salt for the average American market is said to be about three-quarters to one and a half ounces of salt per pound butter-fat, this amount being based on the desired salt content of from 2.5 to 3.5 per cent. Such an amount of salt, however, is much in excess of the ideal which many progressive Canadian creamerymen apparently have in mind, which apparently requires in the neighborhood of one per cent. of salt in the butter when it is made.

The amount of salt that remains in the butter depends on the size and condition of the butter granules, the amount of working the butter receives, the method of salting, and the amount of moisture in the butter. If the granules are very small, it is difficult to dissolve the salt, and much of it is lost in the brine. There is also little loss of salt if the butter has been allowed to drain thoroughly before salting. Butter-fat, however, will not dissolve salt, and for this purpose there must be moisture present. Butter with a low moisture content cannot hold much salt in solution, and over-worked and gritty butter is usually the result of trying to incorporate a high content of salt in dry butter. Butter containing a large amount of properly incorporated moisture is capable of retaining a relatively high per cent. of salt. The commonest method of salting in our creameries is the dry salting method. Salt is sprinkled over the butter, either in the churn or on the workers and the butter is worked until the salt is evenly distributed and dissolved. With hard butter the proper distribution of salt by this method is sometimes very difficult and requires much extra work, while in soft, slushy butter there is a tendency for the grains of salt to become encased in films of fat, which makes it impossible for the moisture to gain access to the salt in order to dissolve it.

Salt should be of the very best quality in order to



Queen's Edward.

Senior champion Angus male at London for Col. Robt. McEwen, London.



Cavalier Perfection.

Junior and grand champion Hereford male at Toronto for L. O. Clifford, Oshawa.