

INTER-COLLEGIATE CONTEST IN LIVE STOCK JUDGING.

An important contest, of interest to the students of the agricultural colleges in America, will take place at the Trans-Mississippi Exposition at Omaha. If it were possible, we would like to see some of the students of the Ontario Agricultural College take part in this contest, as we believe that, with the training they have received there in the judging of live stock, they would be able to give a good account of themselves. We are indebted to John A. Craig, formerly editor of *The Canadian Live Stock Journal*, and now Professor of Animal Husbandry, Agricultural College, Ames, Iowa, for the following particulars concerning this contest:

Through the liberality of Messrs. Clay, Robinson & Co., of the Union Stock Yards, Chicago, two hundred and fifty dollars is offered by them for competition among the students of our colleges. The brief conditions so far outlined are enumerated below.

Conditions of entry—

1. Any students that are or have been regularly enrolled in any American college in 1898 are eligible to enter this competition.
2. The names of those entered for competition must be submitted to a committee on eligibility at least two weeks previous to the date set for the competition.

Basis of awards—

1. The rank of the competitors will be based on the total number of marks obtained in judging the three classes of fat stock cattle, sheep and swine.
2. The examiners will observe the following scale in marking:
 - 50 per cent. for correctness in placing animals.
 - 30 per cent. for reasons sustaining decisions.
 - 10 per cent. for method of examining animals.
 - 10 per cent. for dispatch submitting decisions.

Division of prizes—

1. The amount donated for this purpose will be divided into a first prize of \$125, a second prize of \$75, and a third prize of \$50.

Method of examination—

1. The animals will be arranged in classes according to the classification of the Exposition catalogue and each animal will be numbered. The competitors will be required to submit to the examiners a report written on a blank similar to that attached herewith.
2. The examiners will place the animals after the students have judged each class and explain their reasons for the decisions they make.
3. Recognized experts will be selected to make the awards by representatives of the colleges competing. In event of any disagreement the donors of the prize will be requested to adjust the difficulty.

Time and place of examination—

The competition will take place at the Trans-Mississippi and International Exposition at Omaha, Nebraska, during the time fixed upon by the Exposition authorities for the exhibition of fat stock, namely, October 13th to the 20th, 1898.

CLOVER AND PHOSPHATE.

The clover and phosphate theory has received considerable attention in these columns recently and some more data bearing upon the subject will not be amiss. The same question is also receiving the attention of some of the leading farmers and agricultural teachers in England. Following a discussion in the Lincolnshire Chamber of Agriculture on the value of clover and the best means of obtaining it, it being affirmed and generally admitted that clover resulted in great luxuriance as the result of Alberts' Thomas-Phosphate Powder manuring, *The Lincoln Leader* started out to investigate the

soundness of this amazing clover and phosphate theory.

After a visit to a farm at Thurlby the writer says: "From inquiries made from Mr. Clark, the farmer, I was informed that the fields had been looked upon as land not worth bothering with. One was dressed with four five hundred pounds Thomas-Phosphate Powder per acre, and, to the great surprise of all, it did well and gave £35 to £40 (\$175 to \$200) worth of hay, and, as a greater surprise, a large quantity of succulent clover. The other field next to it, not treated, was practically barren, and had given no return whatever." The following season this first field, as described, was "as pretty a field of mowing clover hay as we could wish to see on such poor land, and a most interestingly important feature in our inquiry is that there is gradually improving general herbage, as well as the vigorous growth of clover. Mr. Clark has also applied some of this useful phosphate to his grazing land, and says they are keeping a double head of stock and in better condition than ever before." The editor's description of the Rev. Mr. Long's field is "that this field had formerly produced nothing, but since it had been dressed with the phosphate it had entirely changed. At once the clovers began to show and a general improvement took place, and it had that season yielded one ton of rich, clover hay per acre. On examining this field of six acres again, to our great astonishment, we found (in the third year) all the high-class grasses becoming established among the clovers. This was an immensely interesting study. We sought Mr. Long, who was as much astonished as ourselves, and said 'then it must be due to the Thomas-Phosphate.'"

"We have during the past week paid Mr. Drakes a visit, and, as he says, the clover growth on that Thomas-Phosphate-dressed land is indeed brilliant, while the fields where it was not applied maintain the *status quo ante*." These lands were all clays, so an inspection was made on land described as "blown-away-sand." We quote: "The dressing of Thomas-Phosphate had induced a growth of clovers and other legumes to such an extent that it may be seen to an inch where the application commenced." Another instance on light sandy land was on the field of Squire oats, which was dressed last autumn, and "it has never looked so well before. He used 500 lbs. Thomas-Phosphate per acre last fall." Mr. Taylor Sharp's land showed a similar result in clover and general improvement. Mr. N. Lucas Calcraft, land agent in the Gantby district, wrote: "It is quite true that Thomas-Phosphate applied to poor soil does bring up clover, and some fields we have dressed with it will now keep three sheep where they before would scarcely have kept one." Mr. Holmes, a farm manager whom the party met in the market at Bardney, said: "Land which formerly produced but one load of hay now produces ten." "We found most extraordinary instances of clover growth at the farms of Mr. Laughton Wilson, of Kirkby-la-Thorpe. The hay crop is enormous, and further corroborates the fact that Thomas-Phosphate Powder is effective on light as well as heavy lands. Mr. Cook's farm at Eagle was a very striking instance, as he had used 200 to 300 lbs. of Thomas-Phosphate Powder against eight or ten loads of farm-yard manure, and, while there was no perceptible difference in the bulk, yet the Thomas-Phosphate-dressed land showed a very much greater proportion of clover. On this farm the cows and horses, when turned loose, preferentially made their way to the fields dressed the previous year with the Thomas-Phosphate, and even stayed in the fields when eaten down close rather than the other fields where the herbage was not set off. Our lands are being gradually denuded of their phosphate; the live stock have a natural craving for a more liberal supply of such bone-producing food, and, where land has been so phosphatically treated as to affect the herbage, the animals are instinctively attracted to it to strike the balance of nature's requirements, and thrive accordingly."

"In conclusion we desire that we shall not be misunderstood in this matter. We do not wish to draw preferential comparison between Thomas-Phosphate Powder and other phosphate manures, but the more recently introduced Thomas-Phosphate meets the requirements of nature, and the most recent scientific developments in agricultural practice, to perfection, and this principle is supported by all the experiments of the Royal Agricultural Society, the county councils, and the most successful practical farmers throughout the whole kingdom."

NOVA SCOTIA CROPS.

ISSUED BY THE PROVINCIAL DEPARTMENT OF AGRICULTURE.

The outlook for the agricultural year, 1898, in this province is, upon the whole, satisfactory. The crop bulletins for this year were made returnable to the Office of Agriculture on July 4th, and the probabilities of the various crops are estimated on information received up to that date. Eighty-four returns were received from the counties of Nova Scotia proper, and twenty-four from the island of Cape Breton. All the principal agricultural districts of the province are represented in these returns and a careful analysis of them has been made. These show that the hay crop is an abundant one, being eight per cent. above a full average crop on uplands, six per cent. on improved dykeland and four per cent. on intervals. Owing to the excessive crop of last year, there is a greater supply of old hay still in the country than has been the case at this time of the year in many years. The big crop of this season, coming on the top of that, assures a great supply of fodder, which ought to tell in the shape of a large increase of stock for beef and dairy purposes. The large hay crop of last year has told already, as the returns show that in many districts there has been an increase in beef and dairy stock. The potato crop promises to be slightly above a full average, and roots generally promise well. With suitable weather the oat and other grain crops will be better than usual. There is quite a notable increase in the acreage devoted to wheat in recent years. This is due to two causes, namely, (1) The yield of last season was extra large wherever sown and gave great encouragement to increased cultivation. (2) The great jump in the price of flour in the early spring, caused by the outbreak of the Spanish-American war, made the growth of wheat a leading feature among farmers generally in favorable localities. Lack of warmth and sunshine during the month of June retarded the growth of Indian corn for ensilage and the crop will therefore be considerably below the average. This is to be regretted as no more valuable and profitable fodder can be raised for beef and dairy cattle when used judiciously with other nutritious food.

The fruit crop, which promised to be exceedingly abundant in the period of bloom, will fall far below early expectations as the returns from the great fruit region of the Cornwallis Valley indicate. The wet and cold weather which succeeded the blossoming season prevented perfect pollenization and the fruit did not set well. It is curious to note that outside of what are known as the great fruit counties the apple crop promises better than usual.

MANITOBA CROP REPORTS.

According to a report issued by the Manitoba Department of Agriculture under date of August 22nd, the total production of cereals in that province for 1898 is estimated at a little less than 50,000,000 bushels. The average wheat yield is placed at a fraction over seventeen bushels per acre and

the total yield at between twenty-five and twenty-six million bushels. This is an increase over the estimates made earlier in the year. And it is explained by the fact that there was a wonderful improvement in the crops three or four weeks before maturity. There has as yet been no damage of note by insects and, given another fortnight of the prevailing favorable weather, Manitoba will have a big harvest of hard wheat to gather in.

Good reports are given regarding live stock and Manitoba will not be behind her record this year in furnishing prime cattle for export. The yield of wheat per acre is placed at 17.41 bushels; oats at 35.02; barley at 29.17; flax at 14; rye at 25 and peas at 21 bushels.

FEEDING SKIM-MILK TO GROWING CHICKENS.

At this season of the year young chickens and skim-milk are more abundant on our American farms than at any other time. In view of this fact, it would be well if more people growing chickens would feed them some of this milk.

Skim-milk is a food which contains muscle and flesh-forming material in a form to be readily taken up and digested by the system. Milk that has been skimmed has really lost but a small amount of its value as a food, the cream consisting of considerable fat, which in itself is the least nutritious part of the milk. The cheesy matter left in the milk is its most valuable part for food, and tends to produce a vigorous, healthful growth where fed to calves, pigs and chickens. If more American pigs and chickens were fed less corn and more skim-milk it would not only be to their lasting benefit, but it would also eventually result in financial benefit to the farmer.

With the purpose of studying the effect of skim-milk diet on young, growing chickens, an experiment was conducted at the Indiana Agricultural Experiment Station, in which two lots of chickens were under observation. There were ten chickens of two breeds in each lot, ranging from four to six weeks of age at the beginning of the experiment. Each lot received the same food, care and treatment, excepting that one was fed all the skim-milk wanted, while the other were given none. The grain fed consisted of two parts crushed corn, one part bran and one part ground oats. They were also fed cracked bone, cabbage and lettuce. When the experiment began the total weight of one lot of chickens was only one-half an ounce more than the other. The experiment lasted from July 11th to September 5th.

The result of the feeding show that the chickens fed milk and grain ate some considerable more grain than did those receiving no milk. The results also show that the chickens of lot 1, receiving no milk, made an average weekly gain of 2.62 ounces, while those fed milk made a gain per week of 4.46 ounces, or over one-fourth pound. The chickens fed milk made a more rapid and uniform gain than those fed grain only. The general results of the feeding in every way seemed to show the superior influence of the skim-milk on the growth of the birds.

These chickens were raised on the station grounds, were uniform in char-