## GUELPH FAT STOCK SHOW.

The seventeenth annual Christmas Fat Stock and Poultry Show, under the auspices of the Guelph Fat Stock Club, the South Wellington Agricultural Society, and the Guelph Poultry Association, will be held at Guelph on December 6th, 7th, and 8th next. The prize list contains a good list of premiums and altogether the show is likely to surpass last year's excellent exhibition. Prize lists may be had from the secretary, Jas. McCorkindale, Guelph. On the same dates as the show the Ontario Beekeepers' Association will meet in the City Hall, Guelph, and on December 7th, 8th, and 9th the Ontario Experimental Union will hold its annual meeting at the Ontario Agricultural. All these events transpiring during the same week will make the second week of December a very busy one in the Royal City.

## FRUIT GROWERS' CONVENTION.

The annual convention of the Ontario Fruit Growers' Association will be held in the Court House, St. Catharines, on Dec. 1st and 2nd, next. A good programme has been arranged for, which will include addresses by Dr. Saunders, Director Dominion Experimental Farms; Prof. Robertson, Agricultural and Dairy Commissioner, Ottawa; C. C. James, Deputy Minister of Agriculture, Toronto; Dr. Mills, President Agricultural College, Guelph; Mr. W. T. Macoun, Horticulturist Central Experimental Farm, Ottawa; and H. L. Hutt, Horticulturist O.A.C., Guelph. The Hon. John Dryden, Minister of Agriculture, has also promised to be present if circumstances will permit.

## QUESTIONS AND ANSWERS.

### DIPPING SHEEP.

Mr. John H Mallagh, Dungannon, Ont., writes: "Please give in your next issue a description of a good dipping tub or trough for dipping sheep, also a good method for dipping."

On another page will be found a description of Mr. Alfred Brown's method of dipping sheep, which seems to fill the bill pretty well. A tub for dipping sheep can be made in wood at a small cost. Such a tub should be 24 inches high, 56x30 inches on top and 45x18 inches on the bottom and made water-tight. A drainer should be made to attach to the top of the tub and extend out a few feet for the sheep to drain on after being dipped. A convenient size is 48x27 inches with one end on tub and the other on a frame a little higher than the tub so that the liquid will drain off readily. To the other end of drainer may be attached a sloping board for the sheep to slide to the ground when drained. There are other more expensive arrangements, such as Cooper's regular sheep swimming baths, but these would not be necessary for a small flock. Where a person does not wish to go to much expense and has only a few sheep two large tubs, one to dip and the other to drain the sheep in, will answer the purpose. Directions for mixing the dip go with every package.

## HOW TO MEASURE HAY.

In answer to a number of inquiries we again publish a few simple rules for determining the amount of hay in stack or mow, when it is not convenient to weigh it. Selling by measurement is not always the most satisfactory method, but it sometimes is most convenient.

Sellers are disposed to insist that a cube of seven feet is a ton. This is entirely too small, and will not weigh out. How many cubic feet will make a ton depends on so many conditions that no certain rule can be given.

It depends on the kind of hay whether timothy, alfalfa, or prairie; on the character of the hay, whether fine or coarse; on the condition in which it was put in the stack, and particularly on the size, especially the depth, of the stack or mow.

In a very large mow, well settled, 400 cubic feet of alfalfa or timothy may average a ton, but on top of the mow, or in a small stack, it requires 500 to 512 cubic feet, sometimes even more.

It is not safe for the buyer to figure on less than 500 cubic feet, but in a well-filled mow, in selling we would rather weigh than sell at that measurement.

To find the number of tons in a barn mow or hay shed, multiply the length, depth, and breadth together, and divide by the number of cubic feet you think, considering the quality of hay, and the condition in which it was put up, will make a ton.

To measure a cone-shaped stack, find the area of the base by multiplying the square of the circumference in feet by the decimal .07958 and multiply the product thus obtained by one-third of the height in feet, and then divide as before, cutting off five right-hand figures.

The correctness of this will depend somewhat on the approximation of the stack to a regular one, and if the stack bulges out it makes the product too small. The better way is to estimate the area of stack up to the point of tapering in, and apply above rule to cone-shaped top.

The best way is to weigh. The experience of weighing a few stacks will enable any one to judge quite accurately. Another approximate rule for measuring a round stack is this: Select a place which is as near as possible to what the average size would be if the stack were of uniform diameter from the ground to the top point. Measure around this to get the circumference. Add four ciphers (0000) to the circumference at the right and divide the whole by 3.1559 to get the diameter. Now multiply half of the diameter by half of the circumference and you have the feet of the circular area. Multiply by the number of feet the stack is high, and you will have the solid or cubic feet of the whole. Then divide by 500 to 512, according to its size and compactness, which will give the number of tons in the stack.—*Orange Judd Farmer.*

## PREVENTION OF SMUT IN WHEAT.

The Ohio Agricultural Experiment Station has, for several years past, conducted experiments in the prevention of the smuts in wheat. There are found on wheat in Ohio, *loose smut* and *stinking smut*. The *loose smut* is that noticeable at blossoming time, which destroys usually the entire head. It is, perhaps, more general, though usually much less destructive, than the *stinking smut*, which converts the kernels of wheat into masses of dark brown, ill-smelling fungus spores. This station has been successful in preventing both of these smuts and recommends the following methods:

### FOR STINKING SMUT IN WHEAT.

In all the methods employed for stinking smut it is probably advisable to immerse the grain first in cold water, with stirring, and to skim off the smut balls which will, in this manner, rise to the top of the water. After this is completed either of the following treatments may be employed:

(1) *Hot Water.* Immerse this skimmed seed, contained in gunny bag or suitable wire mesh vessel, for 10 minutes, in hot water, at a temperature of 133° F. Then dry on smut-free surface, cooling quickly by thoroughly stirring, or cold water may be employed to cool the grain. Remember, these temperatures are to be determined by a thermometer; longer immersion than 10 minutes, at that temperature, may injure the grain.

(2) *Bluestone, Copper Sulfate.* Make a solution at the rate of 1 pound to 5 gallons of water; in this solution immerse the seed wheat, freed from the smut balls as before described, for 10 minutes. Allow to stand 10 minutes in sack to drain, then spread and dry with air-slaked lime, shovelling over frequently.

Or by sprinkling, use the above solution at the rate of one gallon to one