

### METHOD OF SOWING.

It was mentioned under the last heading that spring wheat had been sown with a tube drill and broadcast by hand on each of six dates and over a period of five years. The average results show that for the earliest date of seeding the grain which was broadcasted gave a little higher yield than that which was sown with the tube drill, but in the average of the five later dates of seeding the drilled grain gave the highest returns.

### SEED PER ACRE.

The quantity of seed per acre for best results depends upon the condition and the quality of the soil, the variety used, etc. On comparatively rich soils, six pecks per acre is usually a sufficient amount of seed when either the Marquis or the Red Fife variety is used. When land is not very fertile and is not in the best mechanical condition seven and, in some instances, even eight, pecks of seed per acre should be sown. The Wild Goose variety, being a light stooler, usually requires from one to two pecks of seed per acre more than either the Red Fife or the Marquis.

### TREATMENT OF SPRING WHEAT FOR STINKING SMUT.

The fungus disease known as Stinking Smut frequently reduces the yield and impairs the quality of wheat.

As the result of rather extensive experimental work conducted at the College, we have obtained very satisfactory returns from immersing wheat for twenty minutes in a solution made by mixing one pint of formalin with forty-two gallons of water. This treatment is easily applied and is comparatively cheap. It has been effectual in completely killing all of the smut spores in producing the largest average yield of grain per acre of all the treatments used.

The formalin process is used by some farmers, but unless great care is taken this method is not complete in destroying all of the smut, and as a result it is frequently necessary to treat the grain every year. One of the best methods is to carefully moisten twenty-five bushels of wheat by shovelling it over on a barn floor when it is being sprinkled with a mixture of one-half pint of formalin and fifteen gallons of water. When the grain is uniformly moistened it should be covered with bags or blankets for three or four hours, and then spread out to dry. Varying quantities should be treated proportionately.

Not only is it necessary to treat the grain, but the formalin solution should be used to kill the smut spores which are lodged in the bins, on the barn floor, on the bags, in the grain drills or wherever the living spores have an opportunity of re-infesting the grain. The formalin treatment is not effectual in killing the Loose Smut in wheat.

### MAY BE GROWN IN EVERY COUNTY.

Spring wheat is grown in every county and district of Ontario, varying from 52 acres in Elgin County, which has the smallest, to 33,239 acres in Renfrew, which has the largest area in 1917.