

kill the stinking smut, and the results have been very satisfactory. Untreated seed produced an average of 3.6 per cent. of smut in the crop of last year, and 9.3 per cent. of smut in the crop of this season. Seed wheat, which was immersed for twenty minutes in a solution made by adding one pint of formaldehyde (formalin) to forty-two gallons of water, produced an average yield of grain per acre of 50.4 bushels in 1904, and 50.8 bushels in 1905, and that which was untreated produced only 46.6 bushels, and 43 bushels per acre for the corresponding two years, thus making an average saving of nearly 6 bushels per acre. The treatment here mentioned was easily performed, comparatively cheap, effectual in killing the smut spores, and instrumental in furnishing the largest average yield of wheat per acre of all the treatments used.

In an experiment conducted at the College on four different occasions, winter wheat grown on land on which a crop of green peas was plowed under produced an average yield of wheat per acre which was 22.1 per cent. (6.5 bushels) greater than that produced on land on which a crop of green buckwheat was plowed under; and 14.2 per cent. (4.2 bushels) greater than that which was grown on land which was worked as a bare fallow, having been plowed three times during the summer. The results of an experiment conducted in the year 1900 show that the winter wheat which was sown on red clover sod yielded 20.7 per cent. greater than that which was sown on timothy sod. Two years' results with commercial fertilizers show that 160 lbs. per acre of nitrate of soda increased the yield of winter wheat 7.2 bushels, at a cost of about eighty cents per bushel. As a result of hundreds of inquiries, we learn that in Ontario about 33 per cent. of the winter wheat is sown on pea ground, 25 on clover sod, 11 on barley ground, 10 on timothy sod, 9 on summer-fallow, and 12 on land following potatoes, beans, oats, corn, and roots.

Many tests conducted at Guelph indicate the importance of sowing about ninety pounds of winter wheat per acre on an average soil. This amount might be increased for poor land and decreased for rich soil. If the land is in a good state of cultivation it matters but little whether the seed is sown broadcast or with a tube drill, but if the land is dry or lumpy, that which is sown with the drill is likely to give the best results. The highest yields per acre have been obtained from sowing between the 26th of August and the 9th of September.

The average results for six years show a yield of grain per acre of 60.4 bushels for the Mammoth variety and 57.5 bushels for the common variety of winter rye. The returns from winter barley in Ontario are uncertain, as sometimes the yields are very high, and sometimes they are very low. The two varieties grown in 1905 gave only 7.2 and 8.7 bushels per acre. Winter oats are a repeated failure at the College. The hairy or winter vetches produced an average yield of 10.2 tons of green crop per acre in the experiments for four years, and of 7.6 bushels of seed per acre in the tests for five years.

In the co-operative experiments conducted throughout Ontario in 1905, under the direction of the Experimental Union, the varieties of winter wheat gave the following average yields in bushels of grain per acre: Dawson's Golden Chaff, 23.2; Imperial Amber, 22.2; Michigan Amber, 21.7; Ruda Pesth, 21.1; Turkey Red, 20.1, and Banatka, 19.4. Winter rye gave an average yield of 24 bushels per acre. The winter barley was badly winter-killed throughout the Province. Hairy vetches and winter rye gave 8.1 and 7.6 tons of green fodder per acre, respectively.

As long as the supply lasts, material will be distributed free of charge in the order in which the applications are received from Ontario farmers wishing to experiment and to report the results of any one of the following tests: 1, hairy vetches and winter rye, as fodder crops; 2, three varieties of winter wheat; 3, five fertilizers with winter wheat; 4, autumn and spring applications of nitrate of soda, and common salt on winter wheat; and, 5, two varieties of winter rye. The size of each plot is to be one rod wide by two rods long. Material for numbers 3 and 4 will be sent by express, and that for the others by mail.

O. A. C., Guelph, Ont.

C. A. ZAVITZ.

Cranberry Plantations.

According to the Experiment Station Record, issued by the U. S. Government, the best time for planting cranberries is about the time corn is planted. In the vicinity of Cranmoor, noted for its cranberry plantations, the most popular method is to scatter the whole vines over the ground, into which they are pressed with sod hooks. Thorough drainage, sanding and freedom from excessive vegetation were found to help in prevention of frost as well as keeping the bushes in a flourishing condition. Flooding was, however, proved to be the surest protection when frosts were severe. By attention to thorough weeding and good drainage, vines at the stations have yielded at the rate of 62.5 barrels per acre, while the average yield through the State in the same year was five barrels per acre.

A SMALL ADVERTISEMENT IN OUR "WANT AND FOR SALE" COLUMN WILL DO THE TRICK. ADDRESS: THE FARMER'S ADVOCATE AND HOME MAGAZINE, LONDON, ONT.

Corn-growing and Progress.

According to present indications this will be a good year for corn throughout the southern portion of Ontario, at least. Through Norfolk, Oxford, Elgin and Middlesex, and from there west, corn fills the eye everywhere. They grow it on a businesslike scale in these counties, and the numerous silos attest the enterprise of a choice dairy community. It does not need the fine, substantial houses, the large barns with silos attached, nor the herds of thrifty dairy cattle to

there are no silos the farmers lag behind in pretty nearly the same old ruts. Here, then, to the toast—corn-growing and progress!

Collect Weed Seeds this Fall.

Every farmer is concerned about weeds and their modes of reproducing among his crops; yet how many are there who can identify the seeds of, say, one dozen of our commonest weeds, when they meet them separated from the plants, as they are in a sample of clover seed? They do not all look alike, by any means. While a few are somewhat difficult to distinguish, the great majority have peculiarities of form, size, color and structural markings, by which they can be unmistakably known from any other seeds. There are bulletins available, by the aid of which one can learn to know them; but by far a better way, is to go to the plants themselves, rub out the seed, label it, and thus gather the material for a reference collection, which can be examined and consulted at any time. To make such a collection is not a difficult matter, and the time spent is amply repaid in the knowledge gained of the seeding time, habits, etc., of the various weeds, aside altogether from the value of the collection itself. It is a commendable hobby for any farmer, and might well be encouraged among the farmers-to-be, from ten years of age upwards. It has a good influence in promoting cleaner farming. Someone may tauntingly remark, that "he can collect a good few seeds before he expects to see the difference"; yet, whether it be merely a coincidence, or really a result, I believe it is a fact, that an interest taken in this subject is usually accompanied by a lessening of the weed evil. Then, again, a useful and attractive diversion like this, can do much to make farm life more congenial, especially for the young folks, who usually have not the same financial interest which their parents have to hold their inclinations to the farm. With a lively interest in natural objects, they can well leave it to their city cousins to amuse themselves with collections of post cards, stamps, and like fads.

To be a useful and attractive collection, each species of seed should be kept in a small bottle. The best thing for this purpose is a vial holding one dram, and closed with a metal screw-cap, and can probably be secured through any druggist for less than twenty-five cents a dozen. When a sample is enclosed, label it carefully at once, putting the common name on a neat slip of paper, which can be glued around the upper end of the vial, where it will not hide the seed. It is important to get the seeds correctly named. As there are many common weeds on every farm, for which the average person knows no name, the "Farmer's Advocate" would, no doubt, undertake to identify samples for those interested enough to send them. Then by taking the household "authorities" into your confidence you will probably be able to have constructed some kind of a case in which to display the specimens, good enough to serve as a passport to the walls of the "best room." As certain weeds will have already matured seed, one should start collecting at once.

H. GROH.



Twins at Five Weeks Old.

Owned by Richard Berry, London Tp., Ont. Photo by Fred J. Wilson, London.

convince the stranger that here is a prosperous section. The big fields of corn are presumptive evidence. Where corn and the silo have won their way the farmers are working on right lines—that is, feeding stock of some kind, for silage is not a marketable commodity, and must be used at home.

It is noticeable that the culture of corn, more than that of any other staple crop, arouses one's mind to a habit of active thought, which shows itself again in all other branches of his operations. The erection of a silo and the cultivation of corn to fill it is a step of progress, and it is a well-

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Brood Mare and Foal.

Owned by J. Miller, Perth Road, Ont. Second in camera competition, section C. Photo by Calvin Campbell.

known fact that one move in this direction paves the way for further advance. So, not only has the introduction of corn-growing increased the stock-carrying capacity and the direct profits of our farms, but it has resulted in the improvement of our general agriculture. The more corn and silos the more clover, alfalfa and grain per acre, and the more systematic rotation. Where silos abound we find up-to-date communities; where

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