

both outdoor and in. In a recent magazine article a woman told how she found a good electric motor worth more to her than several servants. By its aid she was able to do her own washing, to clean the house with a vacuum cleaner, operate a dish washer, a knife sharpener, meat chopper, coffee grinder, etc. She was also able to heat her house and do her cooking without the usual trouble of looking after stoves and fires, as all she had to do was to push a button when she needed heat. And, best of all, because she was able to manage her work in this way, she was able to preserve the privacy of her home. No matter how good a servant is, she is still a stranger, and her presence in the house adds a certain constraint. According to what I have heard, electricity can be applied to all

kinds of farm work and made to take the place of the elusive and disappearing hired man. If so, something should be done to get it at work. I understand that the whole difficulty at present is one of cost. Inventors have not yet worked out the whole problem of applying electrical energy to the best advantage—especially for heating and cooking. Coal and wood are still cheaper to use even in places where electricity is most available, but it is believed that this difficulty can be overcome. Personally, I am hoping for a time when we will be getting such service from the Hydro-Electric that the alarm-clock can be set so that it will turn on the electricity to heat the house and boil the kettle at the same time that it gives the warning to get up.

An Error in Prescription.

In "Whip's" article on digestive troubles in our January 9th issue, a mistake occurred in the prescription for spasmodic colic. It reads: "1½ oz. each of laudanum and sweet spirits of nitre, and 1½ oz. of fluid extract of belladonna." It should read "and ½ oz. of fluid extract of belladonna." The dose advised would be excessive, though, in all probability, not harmful. The error occurred through an excusable mistake in deciphering manuscript that is usually quite plain, but in this case not perfectly so. We take great pains with our veterinary prescriptions, and in those instances where a slip is made we lose no time in correcting.

Over 5,000 Co-operative Experiments in Agriculture.

The result of 5,027 co-operative experiments in agriculture, conducted under ordinary farm conditions during 1912, were made public at the thirty-fourth anniversary of the Ontario Agricultural and Experimental Union, held last week at the Ontario Agricultural College. It was one of the best-attended meetings ever held by the Union. Interest was keen, and a most excellent program of lectures and discussions occupied the several sessions. The Experimental Union is quite largely an O. A. C. ex-students' association. Organized in 1879, the constitution of the Union contained a provision by which members could receive samples of agricultural seeds annually for experimental purposes. In 1886 a change was made by which others than members might participate in the co-operative work. In that year, as brought out in President Goble's address, under the leadership of Lewis Toole, of Mount Albert, twelve members of the Union started the first co-operative experimental work on their own farms. Since then it has gradually grown until in 1912 the scheme of co-operative tests embraced experiments in agriculture, agricultural chemistry, agricultural botany, apiculture, forestry, and public school work in elementary agriculture, horticulture and forestry.

SCHOOL GARDEN EXPERIMENTS.

Much interest has been created by the co-operative experiments carried on under direction of the Schools Division, and Prof. S. B. McCready, who has charge of it, had quite an inspiring report for the meeting. The work has been conducted along the same lines as those laid down four years ago. Distributions of planting material have been made to schools with instructions for carrying out the practical work in the school or home garden, also instructions for using the children's experiences for class-room lessons. Forest-tree seedlings and packets of barley, alfalfa, lettuce, onion and other crop seeds were distributed free, while for certain other material sent out charge was made. This comprised flower and vegetable seeds, bulbs, vines and shrubbery. In all about 250 schools shared in the distribution. Keen interest has been aroused in various instances by the school-yard plots not only among pupils but, in many cases, among their parents. This nature-study work, observed Prof. McCready, is the only kind that the pupils take home with them in a pleasant and agreeable way.

By way of preface to his address, Prof. McCready recalled that sixty-five years ago when Dr. Egerton Ryerson founded Ontario's System of Education, which called for teacher training, a Normal School was established in Toronto, and the Science Master in this school drew up a plan calling for one hour per day devoted to agriculture with provision for experimental plots. But the theory proved unacceptable to the people, many of whom refused to have these trained teachers. More or less endeavor has ever since been made by the authorities to have agriculture taught in the schools. In recent years we have been coming back at the problem in a new way, through the introduction of nature study.

CO-OPERATIVE FORESTRY.

Forestry is a branch of this many-sided work. In 1912, said E. J. Zavitz, reporting upon this phase, 375,000 plants were sent out into 35 counties, and the total distribution has reached one and a half million. Most of the planting has been done on light waste soil, frequently on patches of blow sand put under trees to prevent the sand drifting across adjoining highways. Even on such places, where neighbors anticipated failure, the results have been satisfactory. Scotch pine doing the best of the different species. There are now 1,500 acres at the forest nursery in Norfolk County, and it is expected soon to have 2,000. On the land there are 100 acres of experimental planting, and one and a half million trees available for future planting.

LEGUME INOCULATION.

Results of co-operative experiments in the

reports has been 60.5. In connection with this statement, however, it is just as well to remember that among those not reporting the percentage of favorable results would likely be much less than among those who do report.

TESTS WITH FIELD CROPS.

Our tabulated abstract of Prof. C. A. Zavitz's report on the co-operative experiments with farm crops contains the pith of this information. It should be understood that the varieties sent out for co-operative test are chiefly such as have acquitted themselves creditably in tests at the College.

Experiments	Varieties	Comparative value	Straw tons.	Yield per Acre Grain bus.	Grain lbs.
Oats (61 tests)	(Siberian (Regenerated Abundance (Lincoln)	100 84 86	1.68 1.43 1.44	50.16 47.08 46.54	1706 1601 1582
Six-rowed Barley (23 tests)	(O. A. C. No. 21 (Emmer)	100 85	1.26 1.43	36.21	1748 1646
Two-rowed Barley (3 tests)	(Hanna (Two-rowed Canadian)	100 95	1.26 1.30	32.78 32.22	1574 1546
Hullless Barley (6 tests)	(Guy Mayle (Black Hullless)	100 93	1.92 1.85	28.77 26.23	1726 1574
Spring Wheat (4 tests)	(Wild Goose (Hungarian)	100 82	1.09 1.05	18.00 15.33	1080 920
Buckwheat (5 tests)	(Rye (Silver Hull)	100 78	1.69 1.69	37.67 32.83	1808 1576
Winter Wheat (13 tests)	(Imperial Amber (American Wonder (Crimson Red (B'n't'a (Tasmania Red)	100 85 60 70 60	1.52 1.47 1.89 1.43 1.80	24.30 21.77 21.54 21.15 20.96	1458 1306 1292 1269 1258
Winter Rye (4 tests)	(Mammoth White (Common)	100 68	1.89 1.88	23.93 19.83	1340 1110
Spring Rye (3 tests)	(O. A. C. No. 61 (Common)	100 80	.59 .46	26.79 24.47	1530 1370
Field Peas (20 tests)	(Canadian Beauty (Early Britain)	100 83	1.07 1.03	21.60 21.53	1296 1292
Field Beans (12 tests)	(Marrowfat (Pea Bean)	100 93	1.44 1.19	31.37 30.11	1882 1806
Soy Beans (2 tests)	(Early Yellow (Brown)	100 76	1.33 .84	18.13 13.49	1088 810
Corn for Grain (7 tests)	(Genesee Valley (Early California (Wisconsin Little Dent)	100 100 77	15.58 11.06 9.10	57.86 54.77 42.69	3240 3067 2390

Experiments	Varieties	Comparative value	Yield per acre (tons)
Manuels (7 tests)	(Ideal (Yellow Leviathan (Sutton's Mammoth Long Red)	100 94 88	32.40 31.89 31.05
Sugar Beets (3 tests)	(Rennie's Tankard Cream (Steele-Brigg's Royal Giant)	100 88	21.05 19.08
Swede Turnips (8 tests)	(Rennie's Empress (Garton's Keepwell (Steele-Brigg's Good Luck)	79 79 100	24.51 22.44 21.45
Carrots (10 tests)	(Bruce's Mammoth Intermediate Smooth White (Steele-Brigg's Improved Short White)	100 90	22.04 19.78
Fodder Corn (4 tests)	(Hoopengardner's Very Early Yellow Dent (Wisconsin No. 7 (White Cap Yellow Dent)	55 73 100	17.29 17.10 17.05