

The Ontario Agricultural Gazette

The Official Bulletin of the Dominion Cattle, Sheep, and Swine Breeders' Associations, and of the Farmers' Institute System of the Province of Ontario.

THE DOMINION CATTLE, SHEEP, AND SWINE BREEDERS' ASSOCIATIONS.

Annual Membership Fees:—Cattle Breeders' \$1; Sheep Breeders', \$1; Swine Breeders', \$1.

BENEFITS OF MEMBERSHIP.

Each member receives a free copy of each publication issued by the Association to which he belongs, during the year in which he is a member. In the case of the Swine Breeders' Association this includes a copy of the Swine Record.

A member of the Swine Breeders' Association is allowed to register pigs at 50c. per head; non-members are charged \$1.00 per head.

A member of the Sheep Breeders' Association is allowed to register sheep at 50c. per head, while non-members are charged \$1.00.

The name and address of each member, and the stock he has for sale, are published once a month. Over 20,000 copies of this directory are mailed monthly. Copies are sent to each Agricultural College and each Experiment Station in Canada and the United States, also to prominent breeders and probable buyers resident in Canada, the United States and elsewhere.

A member of an Association will only be allowed to advertise stock corresponding to the Association to which he belongs; that is, to advertise cattle he must be a member of the Dominion Cattle Breeders' Association, to advertise sheep he must be a member of the Dominion Sheep Breeders' Association, and to advertise swine he must be a member of the Dominion Swine Breeders' Association.

The list of cattle, sheep, and swine for sale will be published in the third issue of each month. Members having stock for sale, in order that they may be included in the Gazette, are required to notify the undersigned by letter on or before the 9th of each month, of the number, breed, age, and sex of the animals. Should a member fail to do this his name will not appear in that issue. The data will be published in the most condensed form.

F. W. HODSON, Secretary.
Parliament Buildings Toronto, Ont.

SOME OF OUR NEWER WEEDS.

By T. C. WHATELY.
(Continued from last issue.)

But with advancing settlement, and especially since the introduction of railways, scores of fresh ones, and among them some of our very worst ones, are being steadily introduced. As instances of unsuspected ways in which weeds are sometimes introduced, I might say that Darwin, the noted naturalist, found in six grains of earth adhering to the feet of a plover three kinds of seeds, and in mud sticking to the feet of ducks and geese shot in England seeds peculiar to the Victoria Nyanza in Central Africa. In mud sticking to the feet of a Texas steer the seeds of five different kinds of weeds and grasses common in Texas were found by a microscopist after the arrival of the animal in New York. In my own experience, in a mixture of imported grass seeds, bought of a first-class seedsman, I found four kinds of weeds I had never seen before, though I thought I had studied nearly all our common weeds.

Before proceeding to describe a number of the newer weeds in my collection, I would like to impress upon you the importance of knowing the names of our weeds, as it is a great help in recognizing them when they first make their appearance. It is then that the most satisfactory work can be done in preventing their spread. Know them, and then you can nip them in the bud so to speak. "A stitch in time saves nine" truly in dealing with weeds. If the prelate in the east who introduced the blueweed into his garden from Europe, had known it to be a bad weed, he would have saved himself the discredit of having it named "the bishop's curse," the name by which that weed is known in a certain locality. I realize that to know the weeds implies some acquaintance with the science of botany, a knowledge at present not possessed by many. But botany is one of the subjects now required to be taught in our public schools, and I would like if I could get the ear of our school trustees generally so as to persuade them to give

every encouragement to our teachers to begin the practical study of this subject. This could easily be done by encouraging pupils to bring specimens of their weeds to school, and have them identified, pressed, and mounted. Thus the subject could be taught with very little effort, and that of a very pleasurable and taste inspiring kind. This is one of the many instances in which a farmer needs to know his business thoroughly, as any business or professional man needs to know his in order to be successful in it. A leading educational authority in this province said lately, in one of our papers, that he did not believe one farmer in a dozen could give the generally accepted common names of twenty of our common weeds. I am afraid this is too true, and if so calls for a remedy.

I will now give a brief description (reference being made at the same time to the mounted specimens) of some thirty of our newer and worst weeds, accompanied by comparison with common forms said to aid in identification, viz.:

Russian thistle.—A great scourge in the Dakotas, but not likely to be so much so here. Has been noticed at a few points.

Great rag-weed.—Specimens collected at Port Huron, Michigan. A larger weed than our common rag-weed.

Creeping or perennial sow thistle.—Very generally introduced in the counties of Ontario and Durham. One of the most aggressive and difficult to eradicate. Strenuous efforts should be made to destroy it and prevent its spread.

Prickly wild lettuce.—Destined I believe to be our very worst field annual, as the purslane is our worst garden annual. Spreading fast in Lambton county and I am told about Campbellford.

Wild tare, often called wild pea.—The cultivated tare, escaped as a weed in some field, is also called by the same name. It is not liable to spread except in seed or manure, but one of the most difficult to eradicate.

Ox-eye daisy has got a firm hold in

many places. Its habit of stouling from the crown enables it to run out most grasses. It should be resolutely dealt with.

English plantain and tall buttercup.—Also two troublesome weeds in grass lands, and apt to find their way into clover fields.

Badder campion.—Not creeping rooted, indeed, but just as hard to kill as that class.

White cockle and night blooming catch-fly resemble each other and are apt to come in clover seed. They should never be allowed to go to seed.

Indian chickweed is spreading in Essex. It may become almost as troublesome as purslane in the garden.

Field speedwell, also purslane speedwell and Alyssum calycinum. I have found these three weeds very troublesome in strawberry ground. They are all annuals, making rapid growth in early spring and seeding by the first of June.

Tansy mustard.—I am not sure but this is the tumbling mustard of the Northwest Territories; a bad one, like all the mustards.

False or wild flax belongs to the mustard family, and, like red-root, pigeon weed, and other winter annuals, is bad in fall wheat.

Black bindweed (field convolvulus).—Perhaps the very hardest of our creeping rooted perennials to kill.

Field pennycress.—Stinkweed, or French weed of Manitoba; a very bad pest in Manitoba, and is becoming so here in many places. It is a winter annual, and grows and seeds throughout the summer.

Spring clot bur or cockle bur.—The worst of the sheep burrs.

Spurry.—A bad weed, though recommended by some for green manuring on sandy soils.

Biennial artemisia.—Bitter like rag-weed. Have seen it a bad pest in root crops on moist soils.

Field poppy.—A troublesome weed in England.

Wild barley (Squirrel tail grass).—Considered one of their worst pests in hay fields in the Northwest, and may come to us in timothy seed brought from there.

Wild oat.—Great care should be taken not to buy seed oats from farms infested with this weed, as when once introduced on a place it generally "comes to stay."

Crab grass.—A most noxious importation from the South.

Bur grass.—A miserable pest.

Nut grass.—A sedge. Propagates by little tubers. It is scarcely possible to ever get rid of it if once introduced.

Potentilla recta.—A new cinquefoil coming in on the Niagara frontier.

Bladder ketmia.—Collected the past summer in a field being overrun with it. Now in Ontario.

To these I may add some roadside weeds: Blueweed, atriplex, wild chicory, velvet leaf, teasel elecampane, and even sweet clover. It is necessary to exercise unceasing watchfulness to prevent these and other weeds from making our roadsides an unsightly tangle.

GROWING POTATOES AND PREVENTING DISEASES.

By ALF. BROWN, Picton.

The abundant crops of 1895 and 1896, together with an overstocked market and low prices, had the effect of many growers becoming indifferent in caring for the crop of 1897, the result of which was a light yield of poor quality. The heavier soils are not capable of producing the best quality of potatoes at any time. The lighter and more suitable soils did not give satisfactory yield and quality in 1897 on account of plants being killed by blight long before completing their growth. The writer invites the indulgence of the reader while briefly giving his experience on this subject. No attempt will be made to describe the diseases of the potato, as this is done in a very practical way by Prof. John Craig, in Farmers' Bulletin No. 23, of the Central Experimental Farm, Ottawa.

ROTATION.

We practise a three-year rotation, as nearly as possible, on all our land except what is down to pasture and fruit, and depend upon medium red clover to keep up the fertility. It may be said that we go through our rotation backwards, or in the opposite way to the common practice. Most people apply manure to the land before the hoed crop; we top-dress in the fall winter, after the corn, potatoes, or whatever hoe crop we use, hauling and spreading directly from the stables whenever the ground is frozen enough to bear a team. Our object is to mulch and fertilize all we can, to insure a good catch of clover which is sown with the grain crop. All corn is cut for the silo and all straw used for feed and bedding is cut, so that there is no clogging of implements in working the manure in the surface soil with harrow and cultivator.

CULTIVATION.

Cultivation is commenced by ploughing the clover sod late in the fall and harrowing, cultivating, and gang-ploughing in the spring, and, when ready to plant in May, strike out and plough in wide lands, dropping fresh cut seed, fifteen inches apart, in every third furrow, about six inches deep, the furrows thirty inches apart. Two good hands will with a curved knife cut and drop the seed as fast as the ground can be ploughed by one team. Harrow crosswise and lengthwise every few days up to the time the plants are three or four inches above the ground. If the work has been well done up to this time there will be little need of a hoe in the field. Scuffle on the level, for the more ridging that is done the more surface will be exposed to be dried out by sun and wind, and the greater amount of soil moisture will be lost. We scuffle once a week, or as soon as the soil is fit to work after every shower, up to the time the plants shade the ground,—deep at first, but finishing at an inch and a-half.

(To be continued.)