

### Hints on Poultry Yards.

The larger the poultry yard, the better. Large yards, however, are not always available, and smaller space has to do. For economy, the yard should be square. Where only one breed is kept, it is better to let several pens of fowl have the run of a large yard, rather than cut it up and give each pen a part. Every internal fence adds to the liberty of the individual hen. Yards should be so arranged that they can be cultivated by horse implements. To have healthy hens, the yards must be kept sweet, and to do this it is advisable to cultivate and grow crops. Double yards are an advantage. By double yards is meant that the fences are so arranged that the hens can be let into one part of the run for a while, and then into the other. This gives an opportunity to cultivate and grow a crop in the yards alternately. The bare yard, with no shade, and never cultivated, is sure to result in sickly poultry.

Grain of any sort will do well as a crop in the poultry yard. The poultry may be allowed in the standing grain in the summer. It provides shade and feed. A root crop, followed by wheat, rye or potatoes does well. The yard is also the best possible place for the kitchen garden. When garden or roots are planted, it is an advantage to sow something between the rows as the various vegetables are taken off. The crop thus sown will supply green feed during the fall and following spring. Winter rye makes a good late fall and early-spring pasture. If it is sown about the first of September, it will provide considerable green food before winter comes and after the snow is off. As the rye gets older, it becomes too coarse for small or growing chicks, and not the best for older birds. By this time, however, something greener and softer can be provided. Rape, corn, cabbage and such crops make splendid green food. In fact, anything grown as a green crop will answer.

Where it is impossible to cultivate or have the movable yards, a more permanent crop may be sown. Where alfalfa can be grown, there is no green food upon which hens do better. Unless overcropped or pastured too soon, alfalfa will supply an abundance of valuable feed. What is not eaten off while green can be cut and cured for hay. This can be fed to the hens during the winter.

Whether free range or yards are used, shade is a necessity. Shrubs and trees answer very well, but if they are not present, artificial shade should be provided. Many of the green crops, such as sunflowers and artichokes, will provide an abundance of shade, as well as a protection from the hawks, and are very valuable plants for feed. —[Farm Poultry, Macdonald College Bulletin.]

## GARDEN & ORCHARD.

### The Varied Agricultural Interests and Possibilities of Lambton County.

Few counties in Ontario, and, in fact, few districts in any part of Canada, or even America, of a like area, offer so many opportunities for diversified agriculture as does the County of Lambton, on the southern end of Lake Huron, and bounded on the West by the St. Clair River. Lambton is a comparatively level county, although not too level for satisfactory drainage, comprising some 659,000 acres, practically all arable, as land unfit for cultivation forms only a small fraction of one per cent. of the total area. The land itself is what allows of the great diversity of production. It is a new county, comparatively speaking, largely composed of a clay-loam soil, but in parts sandy or gravelly soil overlays the clay or clay loam, while a portion, comprising a few thousand acres, in the north, is humus or black muck, to the depth of from seven to sixteen feet. With the lighter land lying close to Lake Huron, and the climate tempered by its waters, a fruit section is being developed in this part of the county. Peaches and other tender fruits grow well, and apples flourish. The tract of muck soil referred to is one of the largest gardens in Canada. All it needs is more development. All garden crops grow luxuriantly in it. Farther south are found many of the best farms, where mixed farming is carried on, and in one township (Moore) cattle-fattening is made a specialty on many of the farms. In specialized agriculture, dairying, sugar-beet growing, alfalfa, flax, beans, tobacco, canning-factory crops, vegetables and small-fruit growing are being successfully followed, besides the branches of agriculture already referred to.

#### THE WORK OF THE AGRICULTURAL DEPARTMENT.

In the educational work, which is doing much to spread scientific agriculture in the county, and also in the work of bringing Lambton's possibilities before the outside world, the District Representative of the Department of Agriculture is directing his efforts. In June, 1910, S. E. Todd, B. S. A., opened an office for the Department in Petrolia. W. H. Porter, B. S. A., was appointed his

assistant a year ago, and when Mr. Todd left the work to take up his duties in connection with the farms run in conjunction with Ontario's Government Institutions, this spring, Mr. Porter was appointed to fill the vacancy. He has two assistants R. H. Tipper and J. G. Lattimer, and a temporary office is opened in Oil Springs. A specialty has been made of publicity work, and, owing to the efforts of these men, Lambton Co. has been advertised by its products at our exhibitions and fruit shows as never before. Drainage work is being pushed. Short courses are held in all parts of the county. An orchard in the southern part of the county is now being operated, partly as a demonstration orchard, to introduce better methods in that locality. People are being encouraged by being shown just what is possible in their own district, and as the work continues, greater progress is being made, and Lambton is no doubt destined to be one of the banner counties of our Province, when the education to advanced scientific methods which has commenced filters through to every resident of the county.

#### A CELERY RANCH.

Near the shores of old Lake Huron, and drained into it is a black muck basin, which was once covered with water, and known as Lake Burwell. This old lake bottom comprises some four or five thousand acres, the water being carried off by a canal cut through what is known locally as the "sand ridge," and continued for a distance of some two miles, connecting with a river flowing to Lake Huron. Being some sixteen feet higher than the lake, good drainage is received. However, the greater portion of the bottom is flooded at each spring freshet, and a deposit of silt left which is gradually raising the level and making towards a condition permitting of cultivation over a wider area.

At the present time, only some forty acres of land is under cultivation, it being used almost exclusively for celery, although other garden crops are grown, more particularly for home consumption. One of the largest celery growers in the district is J. H. Powell, who owns one hundred acres of this soil, and grows yearly fifteen acres of celery for the Toronto and Montreal markets. All that prevents Mr. Powell from growing a larger acreage is the scarcity of labor. He has the land and the market is always good, the demand never flagging. From the acreage planted, Mr. Powell sells annually about fifteen carloads of celery. Most of the crop is sold "to the trade," not in car lots, but in smaller lots expressed, although a firm approached the grower this year, wishing to contract for fifteen carloads, but the offer was refused, Mr. Powell preferring to continue as he has done in the past.

The soil, as previously stated, is "humus" to a depth of from seven to sixteen feet—just the thing for celery and vegetable production. It is so soft and loose that large wooden mud-shoes are required to keep the horses from foundering during cultivation. It is the ideal in garden soil.

In starting the celery, the seed is sown in the open on a plot of the muck soil prepared for the purpose about the fifteenth of April. These young seedlings are allowed to grow in this bed until the third week in June, when they are transplanted over the larger area. The varieties grown are White Plume and Paris Golden Yellow. The soil is thoroughly worked up before the plants are set, and further cultivation is all done with the horse cultivator. Cultivation is frequent. The fertilizer used is from eight to twelve hundred-weight of complete fertilizer, sometimes supplemented by a little potash. The blanching is all done in the field by banking the mulch up to the rows.

When ready to lift, the celery is stored in a special storage building, 120 feet long and 40 feet wide. The walls are cement, one foot thick and four feet high, with no windows, and the building has an ordinary pitch-roof, with a loft over the storage-room. The covering in the loft consists of hay covered with about a foot of sawdust, so that the building is frost-proof up to ten degrees below zero. The entire crop is sold out each year by the first of January. In shipping, one dozen heads are tied together, and eight dozen are placed in each crate.

The crop is a profitable one to produce, as the entire cost of working an acre is estimated by Mr. Powell at from eighty to one hundred dollars, and eighteen thousand heads is a good stand per acre. From eighty to one hundred per cent. of the plants set mature. The crop sells at about 25 cents per dozen, f.o.b., Forest, the nearest railway station, and it doesn't require an expert mathematician to figure out the profits per acre from the enterprise.

Few people, even in the County of Lambton, realize the possibilities of this industry in this old lake-bottom, nestling, as it does, at the foot of the scrub-oak-covered sand hills a little over a mile from the shores of Lake Huron. Celery is not the only crop which flourishes on this soil. Table carrots, seed sown in drills, produce plants which, because of the richness of the soil, scarcely need thinning at all, and they grow so thick as to crowd each other out of the drills. Some were taken from the celery storage cellar June 18th

last, as crisp as when they were put in, and of an extraordinary size. The large amount of plant food and continuous moisture supply produces very large, solid carrots. Onions thinned to half an inch grow to such a size as to literally pile up in the row. Cabbage, cauliflower, beets and table turnips do equally well. As time goes on, and the entire lake-bottom becomes drained by open ditches, and is gradually brought under cultivation, this cannot help becoming one of the gardens of Canada. It has every natural advantage, and what is now being accomplished is only a beginning of what the future will reveal.

#### A TOBACCO EXPERIMENT.

At a distance of only some two or three miles from the area of muck soil, and situated on rising ground, is the farm of Dr. J. A. Grant. The soil on this farm is a light, sandy loam, ideal for fruit of all kinds, and, as the proprietor and his former partner, J. B. Woodhall, demonstrated last season, is quite suitable for tobacco-growing. Their two-and-one-half-acre field, grown and harvested last year, was the first tobacco to be grown in Lambton County on a commercial scale. This year, Dr. Grant is planting a larger acreage, seven acres being the extent of the crop. From the 2½-acre plot grown last year, \$379 worth of tobacco was sold, at 11 cents per pound, a price which speaks volumes for the quality of the production, as 12½ cents was the very top paid in the Ontario tobacco districts that season. A brief outline of the method of cultivation followed is of interest. This year's plants were produced in large hotbeds on the place. These hotbeds were prepared in the ordinary way, by putting one foot of manure in the bottom and covering with one foot of loam. The seed was sown April 19th, mixed with corn meal to get an even distribution, and field planting commenced June 13th, giving about eight weeks for the plants to be large enough to plant in the open. This season is about two weeks later than usual. A machine planter is used, and the plants are taken from the beds when from four to six inches high. The rows in the field are placed 3½ feet apart, and the plants from 2½ to 3 feet apart in the rows. It is used as a crop among first and second year peach trees, and so is cultivated one way only. Cultivation is, however, thorough at least once each week, and following every rain. The crop is hoed three times, as well. Care is taken in the topping (breaking the stem to prevent seeding), that too many leaves are not left. The best tobacco results when just that number of leaves which the plant has the power of bringing to the maximum of size and quality are left. Too large a number left means an inferior quality of tobacco. The new tobacco barn erected on the place is 30 x 90 feet, built of rough lumber, nailed to posts set in the ground. This barn is large enough to store ten acres of tobacco. After the plants are cut and wilted in the sun, they are strung on laths and hung four tiers deep in the barn, which has four rows of hinged ventilators on either side. Care must be taken to have an air-space between the plants as they are hung. Thirteen hundred pounds per acre is considered a good average yield, and a fair estimate on cost of production is fifty dollars per acre, so tobacco bids fair to be a success in Lambton.

Dr. Clark is a firm believer in farm-yard manure as a fertilizer, although for early and rapid growth he uses a little of the artificial product. In handling for shipment, a day upon which the atmosphere is humid enough to toughen the leaves must be chosen. The tobacco is then said to be "in case," and may be handled with practically no breakage. Further experimental work is being tried this year through the planting of 2,000 plants of Havana cigar tobacco. The variety grown as a main crop is Burley, a ninety-day plug variety. Eighty dollars per acre is a fair net return from the crop where all labor is hired. Such is the prospect for tobacco-growing on the lighter land near Lake Huron.

Dr. Grant is also specializing in peaches, having a large acreage of one and two-year-old trees which are doing well. Potatoes and tomatoes are sure croppers on this soil.

A description of cattle-feeding in Lambton appears in another column in this issue, and an article on the county's fruit industry will appear in our next issue.

### Wet Weather and Caterpillars.

"Many nickles make a muckle," must not be forgotten this year in Prescott County. No one remembers such a cold, wet season, and caterpillars have stripped almost everything that might have kept green, in spite of the weather. It isn't often you hear a wail from the Ottawa Valley on account of bad crops. The French people sometimes say, "There may be a 'disette'—that is a scarcity—but never a famine." We may have to modify our boast this year. However, we must not overlook the price of pork and cheese, spring milk hovering around \$1.20, and pork at 11 cents, is comforting to the man who still does a little in these old lines.

Prescott Co., Ont.

G. L. LAMB.