

Practical Points Gleaned at Farmers' Institutes in Eastern Ontario.

The following practical points have been gleaned at the Farmers' Institute meetings held in the counties of Lanark, Grenville, Carleton, Russell, Renfrew, and Amherst Island during December, 1895. The deputation consisted of Mr. D. McCrae, of Guelph, and the writer. Assistance was also rendered at some of the meetings by local men. At two meetings in North Lanark, Miss Millar, of the Ottawa Cooking School, and Mr. Gilbert, Poultry Manager at the Central Experimental Farm, rendered good service. Mr. Sheppard, of Queenston, representing the Good Roads Association, was a valuable helper at the meetings in Renfrew County. Some ex-students of the Ontario Agricultural College Dairy School were prominent workers, especially A. R. Yuill, J. J. Ferguson, L. Patton, R. H. Grant, P. S. MacLaren, and J. D. McPhail. The ex-students of the College will take a prominent part in the Institute work of the future. Their influence and usefulness is growing each year.

MIXED FARMING.

Mr. Nicholson, Merrickville, emphasized:—1. Drain all low-lying land. 2. Keep the weeds down. 3. Cattle should be well housed and not be allowed to wander about the fields in winter wasting food and energy, while the manure from them was carried into the swamps or the Rideau River at every freshet. 4. Where there is not sufficient barnyard manure for the farm, he would recommend the use of artificial fertilizers, especially for corn. 5. Pasture fields were often left too long before breaking them up and re-seeding, thus causing a waste of land, as many of these old pasture fields produced very little food for cattle.

FARM HOMES.

This topic was discussed by Mr. McCrae:—Farm homes should have flowers, shrubs, and a general tasty appearance on the outside; while inside, books, papers, magazines, pictures, and everything possible pertaining to beauty, adornment, and happiness should prevail. In building houses he recommended having the chimneys in the center of the house, which will make it warmer in winter and cooler in summer. Good cellars, pure water, and plenty of sunlight and fresh air in the house are points needing special attention. In addition farmers should aim to lessen the drudgery of farm life, improve the quality of farm products and make the home attractive. Above all, love should dwell there, that the boys and girls who go out from Canadian homes may always look back to them as the most pleasant spots in the world.

SCIENTIFIC COOKERY.

Miss Millar drew attention to the fact that scientific housekeeping is as important as scientific farm-keeping, yet little attention has been paid to the former until recently. "Beef is manufactured grass." "Condiments or spices are not food nutrients, but they serve to make foods palatable." "The water of fruits, vegetables, and meats is more valuable than ordinary water, as it usually contains some mineral and other valuable matters dissolved in it." "Good water should be clear, cool, and free from taste and smell." "Lemonade, and thin oatmeal gruel well cooked, and afterwards cooled, are the best drinks for summer." "Porridge should be cooked for at least one hour before it is in best condition to digest. Better cook it the day before and 'warm it up' in the morning." "Raw starch is indigestible." "Foods should be balanced, i. e., too much fat or too much sugar is not good for a person; starchy foods should be combined with protein or muscle-forming foods to balance them properly. We eat too much of the heat formers (sugar and starch) and not enough of the muscle formers (lean meat, white of egg, etc.)."

BUTTERMAKING.

By A. R. Yuill:—"While milking, the air of the stable becomes mixed with the milk, hence the need of pure air in the stable." "Milk regularly, and use a stool so heavy that it cannot be swung in one hand." "The cream should be ripened as thick as good maple syrup before churning." "Churn in 36 hours after milking." "Stop the churn when the butter is like grains of wheat and draw off the buttermilk." "Salt in the churn and a worker is not needed."

GRASSES AND CLOVERS.

Mr. McCrae recommends sowing orchard grass mixed with timothy and clovers when seeding down. Meadow Fescue and Brome grass should also be used as a variety, as it will make better pasture and hay than timothy alone. Clovers are valuable as manures, owing to the fact that they take nitrogen from the air, thus enriching the soil. Lucerne clover is a valuable plant for soiling purposes. It does best on land having an open subsoil. Alsike clover is valuable for its seed. As a crop it will take the place of wheat. Yellow Trefoil might be sown on bare and waste places in pasture fields. Sow a small piece at a time and see how it grows. Crimson clover might do well in warmer parts of the Province. In harvesting Alsike for seed it should be handled carefully, as it shells easily. One farmer reported that on his low-lying land he could not raise Red clover, but since he commenced sowing Alsike he had no further trouble—in fact, he always had clover now, as the seed seems to remain in the soil. Red clover hay may be cut in the forenoon, "tedded" in the afternoon, raked up in the evening, and hauled the next day. It will come

out of the mow with the color of the blossom on it. There must be no dew or rain on the hay when it is hauled in. Sow more clovers.

WEEDS.

"To kill couch or quack grass in sandy soil take off three crops of buckwheat and one crop of roots and it will be effectually eradicated," said a Grenville farmer. Others recommend shallow plowing and carting the roots from the field to a compost heap, or burn them. To kill the Canada thistle seed down thickly and mow for two or three years. Sheep are excellent to keep weeds in check. Grain fields should be gang-plowed after harvest and worked on top to start the weeds growing; then plow deeply in the fall. A Russell farmer thought that this plan wasted a good deal of the fertilizing matter in the soil, and preferred seeding nearly all crops down with clover in the spring and pasture after harvest. Plowing directly after harvest should not be done except in extreme cases, according to his opinion.

CHANGE OF SEED.

A discussion on this topic at Metcalfe brought out a variety of opinion. One farmer thought that if a part of the farm were gravelly and light and the remainder heavy or mucky, that a change from one part of the farm to the other would be better than getting seed from outside, and run the risk of weed seeds, besides paying an extra price. Some thought that a change of seed was not nearly so important as a great many fancied, and that there was no need of so much changing as practiced by some.

SPRING VS. FALL PLOWING.

Most farmers seem agreed that fall plowing is best for all crops except corn. There seems to be a difference of opinion as to whether heavy soil should be plowed in the spring or fall for corn, but nearly all seemed agreed that on light soil it does best on spring plowing. When plowing in the fall it is well to plow a little deeper each time, thus bringing up a small portion of the subsoil to the action of air, frost and sunshine. The depth of soil available for plant-food will thus keep on increasing, and in time, instead of having five or six inches of soil for plants to feed on, they will have from eight to twelve inches of plant-food soil, such as they have in the Island of Jersey, where they plow twelve to fourteen inches deep and raise two crops a year off all land.

CORN GROWING FOR THE SILO.

By Mr. Morrison, President of N. Grenville Institute. He prefers grass land manured from the stable (twenty loads to the acre) and plowed six inches deep in the spring. Would turn the whole field at one furrow if possible. Work the top well and secure a fine seed bed, then mark the land and plant in hills three feet apart. (He considers that a "planter" is not safe in the hands of a hired man, nor on land not in good condition, as a person may imagine they are planting the field when they are not.) Plant four kernels to the hill. Harrow as soon as the corn is up, using an old-fashioned wooden harrow. Have the teeth of the harrow sharp so that they will cut through the hills and not drag the corn out. When scuffling always go the same way between the rows, as the roots become turned in one direction, and if the next time the field is cultivated the scuffer goes in an opposite direction it will break too many roots. Never pile dirt around corn, as it causes root formation which is worthless. Cultivate lightly and as long as possible. He always had men in the silo to tramp the corn until this year, and he has more spoilt corn than ever before. He believes in tramping the corn into the silo.

COST OF RAISING TEN ACRES OF CORN AND FILLING THE SAME INTO A SILO.

By Mr. Derrick, of Merrickville. The past season he grew ten acres of corn on an old pasture field, near the barn, which was not manured, as the land was rich. It was nearly all plowed in the fall, but the ground froze before he got it all plowed, and the remainder was plowed in the spring. The crop was equally good on both fall and spring plowing. He used the Longfellow variety of corn, which seems to be the favorite in Eastern Ontario. The corn was planted in hills 3½ feet apart. (He made a marker by bolting worn-out cultivator teeth on a plank the right distance apart.) He picked off the best ears before cutting for the silo, and estimates there were 500 bushels of these ears. (This seems to be a common practice among silo men in these counties. They pluck the best ears before cutting the corn for the silo and feed these to pigs. They claim that a great deal of this ripe corn passes through the cow undigested and is lost.) The corn was cut with sickles. He "changed work" with some neighbors while filling the silo, and had twelve men for two days to clean the field. He paid \$1.00 per day for the hired help, and paid \$6.00 per day for two men, two teams, and the machine for cutting the corn into the silo. The total cost, he stated, is as follows:—

Plowing (10 acres).....	\$15 00
Cultivating.....	4 50
Harrowing and marking.....	6 00
Planting.....	8 00
Seeding.....	11 00
Hoeing.....	5 00
Cost of harvesting.....	39 50

Total cost.....\$92 00

He has eighty tons of silage, which cost him \$1.15 per ton. This he considers is the cheapest feed a farmer can grow, and "men who are standing aloof from the silo are making a great mistake." A

small farmer needs a silo even more than a person on a large farm, because with the silo more stock may be kept on a given area of land. Mr. Derrick thinks that corn alone is not good food for cows giving milk. In addition to 35 lbs. silage daily, he feeds straw and 3 to 4 lbs. of meal, and clover hay at night. He made an experiment one day by putting the meal at one side of the manger and the silage at the other, and when the cows came in from water they ate the silage first. In addition to his address on corn growing, Mr. Derrick told the meeting how he built his milkstand. (I was pleased to see the great number of excellent milkstands along the roads as we drove from place to place. In the West we are very much behind in this respect.) He put down posts 9 feet high. The size of the stand is 5x7½ feet (though he thought 6x8 would be better). The sides are made of lattice work, ripped from planks—not lath. It has a suitable roof and doors. A 2-inch tin pipe runs from the stand to the hog-pen to carry the whey and washings from the can. (The latter should never be emptied near the milkstand day after day, as they are apt to create an odor, and the whey should not be returned in milk cans.) The whole stand was nicely painted. This sort of a milkstand is quite a contrast to the shaky, unsightly looking structures that pass for milkstands in many places. Let us reform.

RAINWATER IN MILK.

Mr. Kidd, President of the Carleton Institute, and an owner of several cheese factories, reported that one rainy morning this past season he took in half a ton more milk at one of his factories than he did the previous or succeeding morning. He did not have any more cheese, and it was the poorest cheese made during the season. MORAL: Cheese cannot be made from rainwater. It also spoils the quality of the cheese. Patrons should not allow the cans of milk to be exposed to rain. Milkstands should be covered, the milk wagons should have canvas covers to protect the milk from rain, sun, and dust, and covered driveways should be provided at the factories for the wagons while unloading. To satisfy patrons who send in 100 pounds of milk and wish to take home 200 pounds of whey, Mr. Kidd attached the ejectors to the Rideau River, and every one was satisfied thereafter.

DEHORNING.

A great many farmers are dehorning their cattle in the East. Men say they would not have stock with horns on under any consideration. Both saw and clippers are used—the former for large horns. One man lost an animal by bleeding to death. They recommend tying a piece of binder twine around the base of the horn, which will prevent bleeding to a large extent. Some tie this string on all animals after dehorning, as a preventive, while others practice this only in case of "bleeders."

STRAWBERRIES FOR FARMERS.

Mr. Sheppard recommends manuring heavily and plowing in the fall. Coal ashes are good for heavy soil. When the plants are received, "heel" them in at once until ready to plant. To plant a large plot of strawberries, make furrows four feet apart, plant one foot apart in the furrow, and cover with the hoe. To plant in a garden, put the plants in hills two feet apart. Make a hole with a crowbar or spade, put in the plant and press the dirt firmly about it. Pinch off all the fruit buds the first year, as one box of berries the first year means a sacrifice of fifty boxes the second. Keep the runners down until August, then allow a few. After September, do not allow any more plants to form, as it weakens the parent plant. Plant new beds every year, and do not expect them to last more than two years. Mr. Sheppard takes but one crop, and then plows them up. He recommends covering the plants with evergreen boughs, or straw, before winter. Better to plant early and late varieties, so as to prolong the season.

GOOD ROADS.

Many of the township councils in the East have bought road machines, and all speak very highly of them. The North Gower people say they never had such good roads as during the past season with road machines. They agree that statute labor is not satisfactory in working them, as some farmers are so afraid of their horses. Better to hire teams and men accustomed to the work, they say. Mr. Mohr, Warden of Carleton, is strongly in favor of commuting statute labor to fifty cents a day. A road machine costs from \$200 to \$250. Two other implements are needed in road-making—a heavy roller and a stone-crusher, where there is no gravel, but plenty of rock. A stone-crusher, which will take a stone 14 inches by 6 inches, and will crush a cord of stone per hour, will cost about \$600. Such a machine requires a 12-horse power engine to drive it. Six inches of broken stone and two inches of "siftings" or sand, well packed on the roads, will make an excellent road. Such a road-bed, eight feet wide and eight inches deep, will cost from \$400 to \$500 per mile, but it is a safe and paying investment on leading roads. The Good Roads Association is in favor of the counties assuming control of all leading inter-town and city roads. Drifts in winter may be prevented by lowering the fences. Many of the log fences where we have been driving are lowered for the winter by taking off one or two of the top logs.

H. H. DEAN.

Dr. Peter Collier recently resigned his position as Director of the Geneva (N. Y.) Experiment Station, and has been succeeded by Prof. E. B. Voorhees, at the head of the New Jersey Experiment Station.