

meal, furnished the necessary food. Many find it wise to put an inch of the manure near the bottom of the box, as reserve food late in the season. In planting, arrange for color effect and height, with tall growers at the back. In watering, it was well to apply such quantities as would reach the bottom and begin to run through the drainage holes each time.

Earthenware hanging baskets always should have saucer bottom. Wire hanging-baskets were easily constructed from common wire netting and moss, by banking the latter around the inside of the basket, with the green toward the wire, and filling in with rich soil.

Rustic stands were of various forms. Iron or wood or wire could be used to advantage. In many cases, tree-stumps or posts could be turned into lovely rustic stands at very little expense.

The main guide to plants used was their power to withstand conditions under which they would be grown. Some thrive in shady places, but would not stand hot sun. On sunny or slightly shady positions, the plants included canna, salvia, geranium, nasturtium, coleus, irisene, verbenas and creeping Charlie. For very sunny position, cacti, agaves, century plant, aloes, and other succulent plants. For shaded position, palms, dracenas, fuchsias, begonias, ficus alastica, asparagus, plumosus, crotons, sweet peas, climbing nasturtium, lobelia, nasturtium, German ivy, tradescantia, and asparagus sprengeri.

It was pointed out by R. B. Whyte, of Ottawa, that window boxes had much to do with making London, England, one of the most attractive cities it had been his pleasure to visit. The buildings on every street were decorated on first, second and third story windows.

KEEPING BULBS AND TUBEROUS PLANTS.

The best methods of keeping summer-flowering bulbs and tuberous plants, formed the subject on which J. McP. Ross, of Toronto, gave an interesting talk. The grower must know the nature of his plants, and the climatic and soil conditions under which nature produced them. The main point was to dig up bulbs and tuberous plants when the tops were dead, and store in a cool, dry cellar. In furnace-heated cellars there was a danger of overdrying. For this reason, it was well to pack them in sand. Always avoid excesses of heat or cold, moisture or dryness.

Lilies and all plants of this family, placed in the ground over winter, should be in well-made and high beds, to give perfect drainage. Also, there should be a liberal mulch for protection.

In an interesting discussion following, many questions regarding bulb-planting were brought up. In answer to a question regarding the advisability of holding bulbs over a season before planting, H. H. Groff, of Simcoe, stated that he planted all the first season. R. B. Whyte, of Ottawa, cited an instance of where his bulbs, held over, had given an abnormal return.

TUB PLANTS.

Half-hardy tub plants for ornamentation of grounds in summer, and the method of protecting during the winter season, were dealt with by Roderick Cameron. Tubs were not so satisfactory as caskets made of common chicken netting. These could be lined with moss, and filled with good soil. In spring, basket and all could be planted, and the plants would thrive better than with endless watering during the summer.

In winter they could be taken up, basket and all, and stored in a deep cellar in which was placed about three feet of soil. Before the plants were planted in their winter home, this should be saturated with water, and no more added until they were taken outside in spring. It was possible that the plants would freeze, but under such circumstances they should be in total darkness. If such were the case until the frost left, there was no injurious effect.

ENGLISH GARDENS AND PARKS.

An eight-weeks' pleasure trip through England last summer gave R. B. Whyte, of Ottawa, an interesting topic for Canadians. In talking on horticultural conditions there, he pointed out that all walks, gardens and parks had a finished appearance. Wild flowers were conspicuous, but not of great variety. One of London's most important horticultural features was the number of parks of huge size, as well as the smaller ones dotted here and there all over the city.

Great interest was taken in Mr. Whyte's description of Temple Gardens, and the great annual spring horticultural show held there. The tastes of exhibitors differed greatly from those of exhibitors in Toronto. Plants in great variety and rare beauty were in evidence in all departments.

Strawberries were a revelation. The average size was equal to a fair-sized Fameuse apple, and had quality as commendable as its size. Nothing he had tasted in Canada was equal to the English strawberries. Prices range from 3s. 2d. down to 1s. or thereabouts in a day at different points. Gooseberries, in size and variety, were an important part of the fruit crop. In Kent County alone a large area was devoted to gooseberry production. On one occasion he saw peaches on sale

at 37c. each. These were home-grown fruit, before the imported stock had arrived.

CIVIC IMPROVEMENT IN ONTARIO.

That the civic-improvement movement is making satisfactory progress, was evidenced by what Prof. H. L. Hutt, of Ontario Agricultural College, Guelph, had to say, and by lantern slides showing the results of a campaign of only a few seasons, as well as ideal grounds and surroundings. In the United States a regular Civic Improvement Association had been at active work for several years. There were 22 members in different parts of Canada.

From organization during recent years in Ontario, steady, and even rapid, progress had been noticed. Cement walks and steps, removal of fences, nicely-kept lawns and flower-beds, systematic planting of trees, and various other features, were clear evidences of good work done.

Continuity of action through parks board or council committee was urged, in order that all labor on streets and avenues should be done to best advantage, and proper varieties planted in the proper place. Where towns and cities had acted systematically, specially-noticeable results were conspicuous.

Among the means of furthering the good work, citizens were urged to organize, to make good use of the press, to interest the children, to seek co-operation of other organizations, to arrange for suitable lands, to establish a local nursery for supplying the requirements of the citizens, and to urge every citizen to do his share.

The development of a perennial border during the past ten years, was the subject on which W. T. Macoun, Horticulturist, Central Experimental Farm, Ottawa, gave a valuable talk. Precautionary advice for beginners formed the major part of the address. In order to have continuous bloom throughout the season, large clumps had to be avoided. Bulbous plants were necessary for early spring display, but if these were spread too widely in a single place, a gap would appear later in the season. Small clumps, and more of them, was the better plan. In this way, other plants coming on later, planted near, would fill in the gap.

Recommendations for planting for effect throughout the summer, included Iceland poppy, peach-leaved campanula, dwarf larkspur, and white Rocket, in addition to the perennials commonly grown. All could be grown from seed, and they were desirable particularly for mass effect. Interested persons were advised to secure a copy of a descriptive bulletin on herbaceous perennial plants, prepared by the speaker, and almost ready for distribution. In it, over 2,000 species and varieties were mentioned, and descriptive notes given.

In accordance with a letter from J. Horace McFarlane, the great civic-improvement enthusiast, of Harrisburg, Pa., in which he suggested that the Ontario Horticultural Association join with the American Civic Improvement, a motion for affiliation brought a unanimous approval. It was also decided to send Prof. Hutt and J. Lockie Wilson to the annual convention in Pittsburg during the week of Nov. 16th.

VEGETABLE - GROWERS' CONVENTION.

The one-day's session of the Ontario Vegetable-growers' Association was full of enthusiasm and interest. Delegates from the various branch organizations and other progressive growers from different parts of the Province, showed their appreciation of the work of the Executive and those who took part in the convention. Onions, tomatoes, and numerous other crops, as well as the use of fertilizers in obtaining higher yields, and the fighting of insect and fungous pests, proved to furnish interesting material for thought and discussion.

The President, R. H. Lewis, of Hamilton, in pointing out that the object of the Association, as well as this convention, was education, suggested that special attention be devoted to forming new branch associations. A visit to the Ontario Agricultural College last season revealed the fact that the work done at that institution in the interests of vegetable growers was very much superior to that being undertaken a few years ago. For many staple vegetable crops, however, it was necessary to have an experimental farm in a more southerly district. A good start had been made at the Jordan Harbor station.

EARLY SEEDING ONIONS.

The work contemplated for 1909 was dealt with by Thos. Delworth, of Weston. A series of experiments to determine the best dates of seeding for onions had been conducted. In many sections the practice was to sow as early in spring as the ground could be fitted. Others argued that, by delaying the seeding, a crop of weeds could be killed, and a more rapid germination insured. Reports from a dozen enthusiasts who undertook the test, showed that the established practice of early sowing was the most remunerative. A Weston experiment gave 112 pounds marketable onions from May 6th sowing, 120 pounds from May 10th sowing, and 32 pounds from May 30th sowing. At Humber Bay seed sown on May 9th gave 101

pounds, that sown on May 14th gave 150 pounds, and that sown on June 2nd was absolutely valueless, not one seed in twenty germinating. At Jordan Harbor, May 5th sowing yielded 100 pounds, May 15th sowing 53 pounds, and May 28th sowing 51 pounds. In every case, the quality of the two early crops was greatly superior to the late-sown crop. Guelph, Ottawa and Chatham growers had similar results.

The intention was to continue the onion experiments, and also to launch out with other vegetables. It had been arranged to test home-grown cauliflower seed, and compare the returns from those of imported seed, but it was found impossible to secure the seed.

Secretary J. Lockie Wilson, in giving his report, dealt happily with the history of vegetable-growing from the long-gone ages to the present, and urged all market growers to procure only first-class seed, and use brains in their garden work. Legislation regarding the non-warranty clause found on seed packages and in catalogues, and penalizing seed vendors who disposed of seed going below 60 per cent. vitality were a necessity.

TESTING SEED OF VEGETABLE CROPS.

The Provincial Association now comprised nine branch organizations, and a total of about 400 members. A prize offered for best secretary's report of the work done by local branches was won by F. F. Reeves, of Humber Bay. Complaints as to worthless or inferior garden seeds being on the market, led to a suggestion from the growers that the Ontario Agricultural College be asked to test seeds and publish results before the time of seeding, in order to protect growers. The matter had been taken up with the College authorities, but nothing definite had been arranged.

In the ensuing discussion, it was claimed by prominent vegetable-growers that it was as necessary to have legislation dealing with cauliflower or other vegetable seeds as it was to compel merchants to guarantee clover seed. Under present conditions, the seeds were low in vitality, and also not true to name. If it was impossible for firms to get high-grade seed, they should at least be compelled to state on the package what per cent. would germinate, so that the grower would know what he was sowing, and not lose his crop, as frequently was the case.

ONION-GROWING IN UNITED STATES.

A trip through the United States during the past season, in the interests of vegetable-growing, furnished A. McMeans, of the O. A. C., Guelph, with interesting details regarding the onion-growing industry. Several States of the American Union were devoting 2,000 to 4,000 acres annually to this crop, and obtaining an average yield between 300 and 400 bushels to the acre. In fourteen States, the total yield from 17,818 acres was 5,571,450 bushels, or an average of 312 bushels to the acre.

As to practices in growing, there was little difference, in some regards, from the common practice in Canada. They were pulled and thrown in rows in such manner as to have tops cover the bulbs, and not left more than four or five days. Special care in drying and storing was taken. Color was the main feature desired, size being sacrificed for ideal color. A very successful Michigan grower had muck soil two to four feet deep, and thoroughly underdrained. This was too-dressed with manure. His yield frequently went 700 bushels to the acre. A machine was used for topping. The cost of weeding ranged from \$7 to \$18 an acre, depending on the season, his motto being to keep the ground clean from year to year, and to use only well-rotted manure or high-grade fertilizer. Seed was raised on his own farm, 160 pounds being produced this year from the use of 85 bushels of bulbs.

Another Michigan grower used a four-row seeder, and put seed in drills 13 inches apart, at the rate of four pounds to the acre. His total cost for 110 acres totalled about \$100 per acre, the yield being between 400 and 500 bushels per acre. Other interesting information included the application of 40 tons to the acre of barnyard manure, and a cost of \$1.00 per acre for wheel-hoeing. Many had to go over the onion field seven times or more, and frequently had an expenditure of more than a dollar each time. In onion sections in the vicinity of Leamington and Scotland, Ontario, the crops had been looked over, and notes taken. As yet, there were no definite data as to the onion production of the Province. Last year Leamington growers shipped 25 cars, and Scotland (Ont.) 65 cars. This year's crop was slightly greater.

W. G. Carter—Would you consider it possible to grow onion seed in Canada?

Mr. McMeans—Seed is grown across the border under very similar conditions. Great care is required in selecting bulbs from which to grow the seed.

IRRIGATION OF VEGETABLES.

In discussing the effect of irrigation on the growth of vegetables and small fruits, Professor W. T. Macoun pointed to the prominence of a lack of water supply during the past season. It