

GARDEN AND ORCHARD.

Nova Scotia Fruit Growers' Annual Meeting.
(SPECIAL CORRESPONDENCE.)

The thirty-first annual meeting of the Nova Scotia Fruit Growers' Association, held in Wolfville, Jan. 29th to Feb. 1st, was the largest-attended in its history; represented by members from all parts of the Province, showing the great interest the Association has awakened during the past year. The Association, by its thrift and careful management, has established and equipped the Nova Scotia School of Horticulture, now the only school of its kind in Canada free to all, having over fifty students in present attendance in the regular and short winter courses, principally farmers' sons. This has marked an important era in the work of the Association. The establishing of an Experimental Station is to be a thing of the future, and is receiving the strong support of all the members, now numbering nearly a thousand.

The Fruit Display was of high merit, including preserved fruits, showing varieties of peaches, plums, cherries, strawberries, etc. The apples were the popular sorts, from the vicinity of the Annapolis Valley. Among the novelties exhibited were five Nonpareils, which had been top-worked on the Emperor of Alexandria, giving a large increase in size of fruit; form similar to Emperor, flesh of yellowish-white, keeping well at this time of year. This change was thought to be due chiefly to influence of stock and scion, possibly fertilization. A collection of apples, from Ottawa, was exhibited by Prof. Craig, of such varieties as Winesap, Gideon, Canada, Baldwin, Wagner, etc., some of which it was thought would be of value to certain districts. Prof. Faville exhibited a collection of insects with which the farmer has to combat. Numerous specimens of fungous growths, insect-infested limbs, etc., were shown.

"Peach Culture in Nova Scotia," by C. A. Patreque, of Wolfville, was the first paper. Peaches had been produced in Annapolis Valley for over seventy years, but only in recent years had they been grown properly. The industry was rapidly increasing. Peaches had been sold for one dollar per basket. Experience shows that peaches grow best in light, sandy loam; trees twelve feet apart, sheltered if possible; advised planting shelter belts. In spraying for insects and fungus, attention should be given to strength of solutions, as peach was tender. Yellows could be controlled best by cutting out trees. In his experience but little trouble had come by buds being killed when early, hardy-bud varieties were planted. Early Alexander had proven best in peach districts; next came Early Crawford, Hynie's, Surprise, Hill's Chili, Early Rivers. Budding met with success whenever tried.

"My Lecture Tour."—An address by Prof. E. E. Faville, of the Horticultural School, covered a review of his lecture tour of the Province in June last. He spoke of the peculiar adaptability of different localities for certain fruits, being controlled by soil and climate, local in its nature; this necessitated the growing of different varieties. In districts adjacent to coast, English varieties of apples did best. In northern portions tender sorts should be top-worked on hardy stocks. Russian varieties thrived best here. The same was true of plums, as to hardiness. Grapes, under glass, matured perfectly and with profit; Black Hamburg and Black Prince had proved the best. Cranberries grow abundantly in the western counties. Hundreds of acres of bog land was ready to be opened up, comparing favorably with the cranberry lands of New England States. The Professor spoke of the needs of improvement in the industry, in spraying, marketing, and handling of fruits; mentioning the importance of pruning, thinning, fertilizing, and cultivation of orchards, placing upon the markets more No. 1 fruit.

"How to Make Fruit-growing a Greater Industry."—A paper by Geo. Thompson. He said that capital was seeking investment in paying results. Prove that fruit-growing did pay, then the industry would increase. This could be done in several ways: by establishing canneries and cold-storage for preserving fruits so as to reach distant markets in first-class shape. Produce first-class apples, thus securing prices that will be profitable to fruit-growers. Much of this advance depended upon careful study of soil and climate, mingled with scientific skill and industry. Haphazard work would not do in these days of keen competition in the markets of the world. Best methods of sorting and packing should be understood. Fruit-growers must become students. Journals, books, and Experimental Station work, together with practice, would cause the Nova Scotia fruit industry to become greater.

"Close Planting of Trees."—A talk given by Ralph S. Eaton, of Kentville, who advocated the setting of apple trees in rows, twenty feet apart and sixteen feet in the row, having standard varieties every thirty-two feet, alternate with early-bearing kinds, as Wealthy, Duchess, etc., coming into bearing earlier; removing them when they crowded the standards, having taken crops from trees sufficient to pay for them many times over. This would also aid in fertilizing blossoms. The same could be done with plums, cherries and peaches. Soil must be fertilized highly. He had already planted some eight thousand trees in this manner. He cited examples in New Brunswick and Arkansas, where this plan had met with remarkable success; though orchards were yet young, they had borne double crops to other orchards of same age in their vicinity.

(TO BE CONTINUED.)

The Cauliflower.

BY FRANK GARDINER.

This vegetable is generally considered a very uncertain and unprofitable sort, so that most gardeners leave it entirely out of their pecuniary consideration. Yet, where it can be grown, it usually returns a large profit, though the growing of a crop is attended with all the uncertainty incident upon investment in a lottery ticket. The culture is, however, increasing, as gardeners are making a study of the plant's requirements, and giving it the soil and handling it demands.

The cabbage, cauliflower, kale, broccoli and Brussels sprouts, dissimilar as they are, are derived from the wild cabbage (*Brassica oleracea*), which is indigenous to the sea-coast of Europe and Great Britain, from Norway to the Mediterranean Sea. In its wild state this plant is entirely destitute of a head, but the edible nature of its stems and leaves has been known for ages. Pliny knew it, but probably only in a semi-improved state; while Rullius, in 1536, refers to a cabbage with heads eighteen inches in diameter.

Of the development of the cauliflower, Vilmoren, an eminent French authority, says: "The sprouting or asparagus broccoli represents the first form exhibited by the new vegetable when it ceased to be the earliest cabbage and was grown with an especial view to its shoots; after this, by continued selection and successive improvements, varieties were obtained which produced a compact, white head, and some of these varieties were still further improved into kinds which are sufficiently early to commence and complete their entire growth in the course of the same year; these last named kinds are now known by the name of cauliflowers." But authors disagree as to which, broccoli or cauliflower, first originated from the wild plant. Vilmoren predicates his views on the coarser nature and longer season of the broccoli. That the cauliflower is an ancient vegetable is proven by the writings of Heuze, who says it was cultivated in Spain in the twelfth century. It was known in Egypt, Cyprus, Greece, and Turkey, in the early part of the sixteenth century, and the close of that century saw it cultivated in England.

The cauliflower is much more extensively grown in Europe than in this country, and with much greater success there; in fact, owing to soil and climatic conditions, a crop of cauliflower is raised with as much ease, almost, and with quite as much certainty as one of cabbage. Erfurt, Germany, is famous for the excellence of its cauliflower seed; the swampy land about the city is specially adapted to its cultivation, and great care is taken to produce fine heads. Water from the irrigating ditches is applied to the plants every day, and pains taken which would be impossible where labor is less cheap. Angiers, in France, sends forty car-loads to Paris every day during the season, and gardeners, in a good year, often net \$300 per acre from the crop. In the United States the consumption of this vegetable keeps so close to the supply that whoever can raise a good crop is sure of a good price. Suffolk county supplies the New York market, chiefly, and in 1889 the crop was worth \$200,000 to her growers, and the acreage has since been widely increased. The Chicago market seldom is adequately supplied, and the same is true of Philadelphia, Washington, Buffalo, Cincinnati and other cities; while the pickle factories may always be relied upon to take a possible surplus, or discolored or malformed heads. But probably the reason of the good market is simply that growers do not yet quite understand the details of cultivation, and as soon as these are known the supply will force prices to a lower level.

The intending cauliflower-farmer should look for a spot of strong, sandy loam. The chief requisites are fertility and moisture. Heavy clay and light sand are unsuitable. Muck is often planted with good results. A virgin soil is especially desirable, as the growth is better than on any old land, no matter how well cultivated. The usual precaution, not to follow a crop of cabbage with another, is to be observed with cauliflower also.

The land can hardly be made too rich, and barnyard manure, well rotted or composted, is best, though commercial fertilizers are useful to aid the formation of heads. As the original plant is a native of the sea-shores, common salt is usually regarded as a help. One precaution is to be observed,—apply all fertilizers to the soil several weeks before transplanting.

The easiest way of starting the plants is to sow the seed in the open ground, in drills, first preparing the bed by giving a dressing of commercial fertilizer, and raking in a light coat of lime or ashes. Set the drill to sow thinly, for seed is expensive. Sow half an inch deep and firm the soil after sowing. A very important thing is to get the seed in while the ground is fresh, and cover before it dries out. It is usually recommended to cover the bed with cloth to prevent drying out, removing as soon as the seed germinates, and also at night. Transplanting makes the plants strong and stalky, and is essential to success with early varieties; but for a late crop, by sowing thinly and thinning out, may be omitted.

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New Fruits at Ottawa.

[Paper read by Prof. Jno. Craig, Ottawa, before the Ontario Fruit Growers' Association.]

APPLES.

McMahan White.—From A. L. Hatch, Ithaca, Wisconsin. This variety has already been noted in the report of the Central Experimental Farm, and I would again draw attention to some of its merits as an apple of value for regions where Northern Spy, Ribston and Greening cannot be grown profitably on account of their inability to withstand the winter cold. It has proved, so far, a remarkably vigorous and healthy grower, free from many of the defects characteristic of varieties unadapted to this climate. It has borne moderate crops for the past two years. The fruit is large, smooth and attractive. Quality medium; season, October to January.

Scott's Winter.—From Doctor T. H. Hoskins, Newport, Vermont, U. S. This is an apple belonging to essentially the same class as the last, in regard to the locality in which it should be cultivated. The fruit is medium to small, handsomely colored; quality medium, its acidity being very pronounced. As a keeping variety it excels. Season, February to May; for culinary purposes.

McIntosh Red.—I mention this to emphasize some of its strong as well as weak points. Tree fairly hardy; quality first-class; appearance handsome; season, that of the Fameuse, or a trifle later, but, like the Fameuse, it falls an easy prey to the apple spot fungus (*Fusicladium*), and no grower should plant it without first making up his mind to deal vigorously with the enemy.

Haas or Fall Queen.—Is mentioned, not for its value as a fruit—which is very slight—but for the use that can be made of it as a top-working stock. For this purpose it possesses many desirable qualifications, and I believe it safe to say that Ribstons, Blenheims and Kings could be profitably grown on this, with possibly increased fruitfulness, in districts where they cannot be grown upon their own stocks.

Winter Duchess has proven to be a handsome fall apple of fair quality, but will hardly compete with Wealthy, which comes in at the same season.

Salome is a much advertised variety from Illinois. The tree is a round-topped, fairly vigorous grower; hardy at Ottawa. Fruit medium to large, round, green, with rarely a blush. Mild, sub-acid in flavor. An apple without striking characteristics, but evidently a keeper.

Gideon.—From Peter M. Gideon, Excelsior, Minn., U. S. Of the same parentage as Wealthy; but more vigorous in growth, with larger leaves. The fruit is of the size of Wealthy, but much less highly colored. It holds to the tree better and may be considered nearly equal in quality. Where McMahan is grown this variety need not be included.

To attempt a descriptive list of all the Russian varieties which have fruited during the year would make an exceedingly lengthy catalogue, and, with our present knowledge, would not be of much value. A large percentage of the varieties in the test orchard have been seriously injured by blight during the past two years. Among the members of the Hibernal family, *Cross*, from Voronezh, Russia, and *Romna* are handsome fall apples. The fruit is large, coarse in quality, but valuable for cooking. They bear heavily and annually.

Longfield is making itself appreciated wherever planted, on account of its early and remarkably heavy bearing habits. *English Pippin* is of the same type and is often confounded with this variety. *Longfield* is undoubtedly one of the best in quality of all the Russians. The fruit is medium or below in size; round, smooth and regular; yellow, with a bright blush on one side. The flesh is white, crisp, sub-acid and good. Under favorable circumstances, as grown in the eastern part of the Province of Quebec, it keeps till March. As a home-use and near-market apple, it has great value. Like the Fameuse, it lacks the points which constitute the essential requisites for an export fruit. To obtain the best results the fruit should be thinned, as the tree is likely to over-bear.

Of the Russian apples imported as scions by the Fruit Growers' Association, in 1890, I shall hope to make a report upon the fruit of many of these next year. *Sara synap*, one of the most noted winter varieties, fruited as a top graft the past season. The specimens secured were disappointingly small; of the shape and appearance of Ben Davis; quality poor; season, mid-winter.

PLUMS.

Of these, I wish to draw attention to a few varieties which seem worthy of special reference.

Hawkeye—(*P. Americana*).—This has already been mentioned in a previous report to the Society, but no apology is needed for this repetition, as it is proving quite equal to the task of making itself appreciated. The tree is a strong grower, which is characteristic of the type, and a remarkably heavy bearer. The fruit is large, round, handsome, purplish red; quality fair. The skin is thick enough to allow of its being marketed in good condition. Season, the middle of September. It should be planted where DeSoto is thought desirable.

Stoddard—(*P. Americana*).—From C. G. Patten, Charles City, Ia., U. S. Answers to same general description as the last, but is somewhat later in ripening. Among the Russian plums which have fruited, two varieties so far are worthy of trial:

(1) *Moldavka*.—This was obtained from Prof. Budd, of Iowa, in 1888. The tree is a round-topped,