Florida is expanding its program with continued emphasis on the development of high quality, anthracnose resistant cultivars. They are also looking for earlier fruiting types that would allow them to increase production during existing market windows.

The first North Carolina crosses for better adapted annual hill cultivars were made in 1986. Matted row selections are being advanced, specific crosses are being made for the mountain region and efforts have begun to combat a new race of red stele reported in the state.

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Eastern Canada Strawberry Cultivars

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Abstract

Similar strawberry cultivars are being grown throughout Canada, east of the Rocky Mountains. During the last ten years the acreage of 'Redcoat,' the predominant cultivar has declined. It has been replaced mainly by 'Kent' but also by 'Glooscap,' and 'Honeoye.' 'Veestar' has maintained its share of the acreage. The acreage of the two newer cultivars 'Blomidon' and 'Governor Simcoe' is expected to increase in the next ten years. Day-neutral cultivars will become more widely grown; 'Hecker' in western Canada and 'Tribute' and 'Tristar' in central and eastern Canada

Introduction

The strawberry cultivars grown in eastern Canada have been found to be adaptable to a wide range of environments. The same cultivars are grown in all the Provinces, east of the Rocky Mountains; that is from Alberta through to Nova Scotia.

Most of the plants are supplied by nurseries that belong to three provincial plant propagation programs, those of Ontario, Quebec and Nova Scotia. Therefore, data on the supply of plants from these programs will closely reflect the cultivar composition of the industry throughout most of Canada.

In this paper I will discuss 1) the cultivar composition of the various Canadian plant propagation programs over the last ten years; 2) the present regional variation in the cultivars and 3) possible cultivar trends for the next ten years.

Cultivar Plant Production from Canadian Propagation Programs

The percentages of the common cultivars grown in the three provincial plant propagation programs are given in Tables 1-3. Those for the Nova Scotia and Quebec programs are based on the total number of plants sold. In Ontario, the percentages are based on the number of elite plants distributed to the plant propagators. These elite plants will produce the plants that are sold two years later. Also the exact percentages of the cultivars sold will differ somewhat from the percentages distributed.

From 1977 until 1985 (1983 for the Nova Scotia program), the cultivar composition of plants supplied by the nurseries varied little. Virtually all the planting stock was of five cultivars, 'Redcoat,' 'Veestar,' 'Bounty,' 'Sparkle' and 'Micmac.' Plants supplied by Quebec were almost completely 'Redcoat' and from Ontario mostly 'Redcoat' with about 20% 'Veestar.' In Nova Scotia, approximately equal portions of 'Redcoat,' 'Veestar' and the total of the two Nova Scotia cultivars 'Bounty' and 'Micmac,' were sold.

In the early 1980's, a large number of new cultivars were introduced. 'Veegem,' 'Veeglow' and 'Vantage' from the Horticultural Research Institute (H.R.I.O.) of Ontario, and 'Kent,'

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Table 1. Cultivar percentages of saleable plants produced in the Nova Scotia Certification Program.

Year	77	78	79	80	81	82	83	84	85	86	87
Redcoat	34	25	29	26	34	34	32	39	17	15	11
Veestar	28	21	28	29	27	26	22	12	11	12	14
Bounty	18	23	17	20	15	13	12	7	8	7	9
Sparkle	11	10	10	6	5	3	3	2	2	2	0
Micmac	2	15	12	13	11	11	8	5	6	4	5
Kent							12	16	33	32	20
Honeoye							2	6	7	8	7
Glooscap							3	5	3	9	6
Blomidon										3	16
Others	7[1]	6	4	6	8	13	6	8	13	8	12[2]

[1]Other cultivars propagated in 1977 were Cavalier, Gorella, Grenadier, Midway, Raritan, Vesper and Vibrant.
[2]Other cultivars propagated in 1987 were Midway, Raritan, Tribute, Tristar and K68-108.

'Glooscap,' 'Annapolis,' 'Cornwallis' and 'Blomidon' from the Agriculture Canada Research Station at Kentville, Nova Scotia. These together with 'Honeoye' from New York have introduced a period of re-evaluation and change into the strawberry industry. This is reflected in the proportions of the cultivars distributed by the plant propagation programs. In the last two years, H.R.I.O. has released two more cultivars 'Governor Simcoe' and 'Settler' into the Ontario propagation program.

From 1983 onwards the demand for 'Redcoat' has decreased dramatically. It has been replaced mainly by 'Kent' but also by 'Glooscap' and 'Honeoye' and more recently in the Nova Scotia program by 'Blomidon.'

The supply of 'Midway' plants in the Ontario program was stimulated to provide plants for a new processing industry.

Also in recent years the total number of different cultivars propagated has increased. For example, in Ontario eight cultivars were propagated as elite plants in 1975 compared to twenty in 1987. Of these, fifteen accounted for only 27% of the production. This quite clearly reflects the period of change the industry is experiencing.

Regional Cultivar Variation

The Maritimes

The major strawberry acreage in the Maritimes is in Nova Scotia (400 ha/1000 acres) and New Brunswick (325 ha/800 acres). The major cultivars in both provinces are 'Kent' and 'Veestar' which account for about half of the acreage. Other cultivars of significant acreage are 'Honeoye' and 'Redcoat' and the Kentville cultivars 'Bounty,' 'Glooscap,' 'Blomidon' and 'Annapolis.' The locally adapted Kentville culti-

Table 2. Cultivar percentages of saleable plants produced in the Quebec Strawberry Certification Program.

Year	77	78	79	80	81	82	83	84	85	86	87
Redcoat	90	89	88	87	86	85	79	79	70	47	40
Veestar	2	2	4	6	5	7	10	9	11	12	12
Bounty	4	4	4	4	5	1	4	5	5	5	5
Sparkle	3	3	4	3	3	5	5	4	4	4	4
Kent									4	11	18
Honeoye									1	8	7
Glooscap									1	7	7
Others	1[1]	2	0	0	1	2	2	3	4	6	7[2]

[1]Other cultivars propagated in 1977 were Grenadier, Vibrant and Earlidawn.
[2]Other cultivars propagated in 1987 were Grenadier, Micmac, Annapolis, Cornwallis, Blomidon and Veeglow.

Table 3. Cultivar percentages of elite plants produced in the Ontario Strawberry Plant Propagation Program.

Year	75	76	77	78	79	80	81	82	83	84	85	86	87
Redcoat	74	77	86	58	69	65	71	69	44	53	31	39	25
Veestar	17	8	9	27	20	25	21	19	23	30	16	22	28
Bounty		2	1	1	1	1	1	1	2	2	11	5	5
Sparkle	2	3	3	2	3	2	2	2	2	1	3	2	2
Midway	1	1	0	1	1	1	1	1	11	1	9	7	7
Kent									1	1	6	2	8
Others	4[1]	10	1	11	6	6	4	8	17	12	14	13	25[2]

[1]Other cultivars propagated in 1975 were Earlidawn, Guardsman, Vibrant and Vesper.
[2]Other cultivars propagated in 1987 were Vibrant, Vesper, Guardian, Raritan, Micmac, Redchief, Veegem, Veeglow, Vantage, Holiday, Gov. Simcoe, Settler, Totem and V7210-5.

vars, including 'Kent,' occupy about 60% of the acreage.

Quebec

The majority of the acreage in Quebec (1980 ha/4900 acres) is still 'Redcoat' but this is rapidly being replaced by 'Kent.' 'Veestar' continues to be the early cultivar. 'Glooscap' and 'Honeoye' are also being planted.

Ontario

The acreage (1600 ha/4000 acres) is spread throughout the province. The cultivars in the south-west are different from those in the rest of the province. In most of the province, 'Kent' now predominates with 'Veestar' as the early cultivar. Other late cultivars, such as 'Vantage,' 'Glooscap' and 'Blomidon' are being grown.

In the south-west, most of the acreage is still 'Redcoat' with 'Veestar' as the early cultivar. 'Honeoye' grows well on specific farms and 'Midway' is grown for processing.

Prairie Provinces

Only Manitoba's strawberry industry (370 ha/925 acres) has a history. Both Saskatchewan (80 ha/200 acres) and Alberta (60 ha/150 acres) started growing strawberries commercially in the early 1980's.

In Manitoba 'Redcoat' and 'Kent' are approximately equal and make up four-fifths of the acreage. 'Bounty,' 'Glooscap' and 'Honeoye' make up most of the rest. The same cultivars are grown in Saskatchewan but with about twice as many 'Redcoat' as 'Kent.'

In Alberta, equal proportions of 'Redcoat,' 'Kent' and 'Glooscap' make up the acreage of June-bearing strawberries, but over half the acreage has been planted to day-neutrals.

Day-Neutral Strawberries

Only small acreages of day-neutrals have been planted throughout Canada. However, in Alberta they have reached half the acreage. The cultivars most widely grown are 'Hecker,' 'Tribute' and 'Tristar.' Hecker is preferred in the Prairie provinces and 'Tribute' and 'Tristar' from Ontario eastwards.

Future Trends

The strawberry cultivars which will be planted over the next ten years will be predominately those which already exist. The demise of 'Redcoat' is assured but uncertainty exists over which cultivar or cultivars will replace it. Probably throughout most of Canada it will be replaced by 'Kent,' 'Glooscap' and 'Blomidon.'

In south-western Ontario, 'Redcoat' will probably be replaced by 'Governor Simcoe.' There, growers have harvested it for the first time this year and already most of the planting stock for 1989 has been sold. I do not yet know what niche 'Settler' will fill but it appears to be more widely adapted than 'Governor Simcoe' which seems to prefer hot sandy soils.

It is too soon to say where day-neutral cultivars will fit into the strawberry industry. I think that day-neutrals will eventually replace June-bearers in

Canada because they give a long harvest season in which growers can compete with imports from California. Also, they can be used in severe frost prone areas of the Prairie provinces as an annual crop. Until new day-neutral cultivars are introduced, 'Hecker' in western Canada and 'Tribute' and 'Tristar' in central and eastern Canada will increase in acreage as planting stock becomes available.

Canada is fortunate that there are two active breeding programs in Nova Scotia and Ontario with a third just starting in Quebec. These programs are producing and will continue to produce improved cultivars for the strawberry industry. These, together with new cultivars from USDA in Maryland and University of Minnesota will shape the future of the strawberry industry not only in eastern Canada but throughout the northern and eastern parts of the U.S.A.

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Kateru: A Late Ripening Himalayan Wild Peach

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Many forms of peach are found growing wild in the mid-Himalayan region of the north west India. One of these forms is *KATERU*, which is sometimes also called *KATAKI ARU*. The most distinguishing feature of this form is the very late ripening of its fruit. The name *KATAKI ARU* literally means the *ARU* (peach) of the *KATAK* month of the Indian calendar which synchronizes with October of the Christian calendar. The fruits of this form start ripening from the middle of September and continue to do so till the end of October depending upon altitude.

The extent of late ripening trait can be judged from the fact that the harvesting season of commercial cultivar 'July Elberta' starts in this region from the 1st of July. The fruits of this wild peach start maturing from the middle of September. *KATERU* therefore ripens at least two months after the normal peaches.

Origin

The trees of *KATERU* have been found growing wild in large numbers in Shimla, Solan and Sirmur districts of the Indian State of Himachal Pradesh (2). There are no reports about the origin or distribution of *KATERU* in other parts of India. It is presumed that this peach must be existing in other parts of the western Himalayas but has not been reported probably due to the reason that no importance is attached to it from commercial point of view.

The fruits of *KATERU* are eaten by the village folks. Although they do not taste as good as those of the cultivated types, they are reported to be more nutritive than the cultivated types (2). The seedlings of this wild peach are used as rootstock for raising new peach grafts.

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