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Evaluation of Four Commercially Available and Six New Junebearing Strawberry Selections

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Abstract

Breeding of Junebearing strawberries for flavor, earliness, disease resistance, and yield is ongoing by Brian Smith at the University of Wisconsin-River Falls. The objective of the study was to evaluate six new selections of Junebearing strawberries from Wisconsin and compare these with four established cultivars, Annapolis, Cavendish, Honeoye, and Jewel, under Iowa growing conditions.

Keywords

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Evaluation of Four Commercially Available and Six New Junebearing Strawberry Selections

RFR-A1137

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Introduction

Breeding of Junebearing strawberries for flavor, earliness, disease resistance, and yield is ongoing by Brian Smith at the University of Wisconsin-River Falls. The objective of the study was to evaluate six new selections of Junebearing strawberries from Wisconsin and compare these with four established cultivars, Annapolis, Cavendish, Honeoye, and Jewel, under Iowa growing conditions.

Materials and Methods

The ten selections and cultivars were established at the ISU Horticulture Research Station Ames, Iowa in the spring of 2009. Dormant crowns were planted two feet apart in 10-ft plots with six feet separating cultivars within rows. Rows were spaced 48 in. apart.

Plants were maintained in matted row production systems using recommended renovation, fertility, irrigation, and pest management practices. Five replications of five plants were established as a matted row in a randomized complete block design. Yield data were collected in spring 2011.

Results and Discussion

All ten selections and cultivars established full matted rows in 2009. The Wisconsin selection 70-RF produced the greatest yield and number of berries per plot in both 2010 and 2011, but did not differ from Jewel, 150-RF, 250-RF01, and 250-RF02. The commercially available Honeoye and Annapolis produced less berries and lower yield than all the selections in the first and second years of bearing. Average berry weight was greatest for 250-RF02, but similar to 70-RF, 120-RF, and 110-RF and the commercially available cultivar Cavendish. The project will be continued in 2012.

Acknowledgements

We thank the Horticulture Research Station staff for their assistance.

Table 1. Yield from spring 2011 of four commercially available and six new selections of Junebearing strawberry developed at the University of Wisconsin-River Falls.^z

Treatment	Number berries per plot	Total yield per plot (kg)	Average berry weight (g)
Jewel	529 a ^y	3.1 ab	7.09 bc
Honeoye	185 b	0.9 e	5.42 d
Cavendish	294 b	2.1 cd	7.55 abc
Annapolis	185 b	1.1 e	5.63 d
70-RF	609 a	3.8 a	7.66 ab
120-RF	245 b	1.7 de	7.62 ab
110-RF	269 b	1.8 de	7.39 abc
150-RF	488 a	2.8 bc	6.36 cd
250-RF01	595 a	2.9 abc	5.67 d
250-RF02	465 a	3.3 ab	8.39 a
LSD P < 0.05 ^x	159	0.9	4.87

^zMeans are an average of five treatment replications.

^yPlot size was 10 ft of matted row strawberry plants.

^xLeast significant difference at P<0.05.