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## Sweet Cherry Cultivar Trial

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# Sweet Cherry Cultivar Trial

## **Abstract**

In 2009, a sweet cherry tree cultivar trial was established to evaluate the suitability of new varieties for the home gardener in the Muscatine Island region. Seven varieties grafted onto Gisela® 5 rootstocks were planted in spring 2009. Gisela® 5 rootstock was chosen for its dwarfing ability (roughly 50 percent of Mazzard), virus resistance, and cold hardiness.

## **Keywords**

RFR A1010

## **Disciplines**

Agricultural Science | Agriculture | Fruit Science

## Sweet Cherry Cultivar Trial

### RFR-A1010

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#### Introduction

In 2009, a sweet cherry tree cultivar trial was established to evaluate the suitability of new varieties for the home gardener in the Muscatine Island region. Seven varieties grafted onto Gisela® 5 rootstocks were planted in spring 2009. Gisela® 5 rootstock was chosen for its dwarfing ability (roughly 50 percent of Mazzard), virus resistance, and cold hardiness.

#### Materials and Methods

Plot arrangement was a randomized complete block design with three replications, one tree per replication. Trees were planted in a coarse, sandy soil 7 ft apart in a single row and pruned to a central leader.

Water was applied via a low pressure spray system over the diameter of the root zone as

needed. Urea was applied at the rate of 0.1 lb actual N per inch of trunk diameter per tree per year where trunk diameter is determined by the average of all trunk diameters measured 12 in. above the soil surface. Due to the leach potential on the coarse sandy soil, fertilizer was applied in three equal applications over six weeks.

Japanese beetles were controlled with Sevin XLR as needed. Weeds were controlled through periodic mowing of a bluegrass cover. Leaf spot was controlled with a rotation of Captan, Bravo, and Pristine.

#### Results and Discussion

Late spring frosts on April 8, 9, and 17 recorded low temperatures of 32.6, 26.5, and 34°F, respectively, but did not injure emerging or burst buds. Trees were not yet fruiting so no flower bud injury was recorded. Cherry leaf spot was common due to the unusually wet season and caused premature leaf defoliation in 2010.

**Table 1. Sweet Cherry growth, leaf spot susceptibility, and bud break.**

Variety	2010 trunk caliper growth (in.) <sup>w</sup>	2010 trunk caliper % increase	Cherry leaf spot susceptibility <sup>x</sup>	Bud burst (Julien date) <sup>y</sup>	GDD <sup>z</sup> to bud burst
Rainier	0.37	26.8	3.3	93	123.9
Blackgold	0.35	31.8	2.7	103	220.9
NY38L	0.35	31.8	2.7	96	150.8
Sweetheart	0.30	37.0	3.0	95	140.8
Kristin	0.27	27.5	3.0	97	167.6
NY32L	0.12	15.3	4.0	96	150.8
Ulster	0.05	8.4	1.5	99	172.8
LSD, P < .05	0.17		1.2	2.3	

<sup>w</sup>Measured 12 in. above soil surface.

<sup>x</sup>Cherry leaf spot scale 1–4: 1 = not susceptible; 2 = somewhat susceptible; 3 = susceptible, 4 = very susceptible.

<sup>y</sup>Julian date; 93 = April 2, 2010.

<sup>z</sup>Growing degree days; Base 50 Cap 86 accumulated from January 1, 2010.