

Dwarf Sour Cherry

— a two page guide

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The University of Saskatchewan released the first dwarf sour cherry cultivar, 'SK Carmen Jewel' in 1999. 'SK Carmine Jewel' was selected because of its dwarf stature (2m) trees of excellent hardiness, which produce early-ripening, dark red fruit high in sugar and easy to harvest by shaking from the tree. The U of S expects to name and release other superior seedlings in the near future.

The dwarf sour cherry combines the small stature and excellent hardiness of Mongolian cherry (*Prunus fruticosa*) with the fruiting characteristics of sour cherry (*P. cerasus*) to produce small trees with fruit that looks and tastes like sour cherry cultivars such as 'Evans', 'Rose', and 'Montmorency.'

Manual: A manual dealing with production of dwarf sour cherries was released in 2004. Please consult for more detailed information.

Hardiness: Dwarf sour cherries were bred in zone 2b to survive winter lows of -40°C without damage. While 'SK Carmine Jewel' has proven hardy in Saskatoon and several other Saskatchewan locations, the dwarf sour cherry is still in the experimental stage. More testing is needed, especially in Chinook areas. Growers are advised to begin at a small scale and expand to larger operations as more becomes known.

Spacings: Within-row spacing for mechanical (over-the-row harvesters) is recommended at 1m while spacings of 1.5m are recommended for hand-harvested or shaken trees. Between row spacings of 5m or more should be determined by tractor width. Where larger implements are not being employed between-row spacings can be substantially narrower.

Fertilizer: Many prairie soils have adequate soil fertility to sustain dwarf sour cherries. Soil testing and fertilizer incorporation prior to planting is recommended. Subsequent fertilizing should take place only during spring

as rapid succulent growth later in the growing season is prone to winter injury.

Watering: During the first three years watering is extremely important to tree establishment. Irrigation is less critical for established trees. The established orchard at the U of S is seldom irrigated. The underlying heavy clay soil retains enough moisture to satisfy the trees' demand. Where irrigation is provided, it should be discontinued in fall to encourage dormancy development.

Grass Cover: Grass between rows serves to reduce mud, and to compete with trees for moisture at the end of the growing season. In dry areas it is best to maintain grass-free alleys between rows. Similarly, establishing trees should be kept grass and weed free. In areas with adequate moisture, grass can be permitted to fill in below established trees. Some growers keep orchards weed/grass free through July, but permit weeds and grass to grow in August to reduce the available moisture supply promoting dormancy, and also facilitates snow trap. Long grass in winter may however also provide winter cover for rodents that gnaw bark and girdle trees.

Windbreaks: Protection to the west and north of any prairie orchard is highly recommended. Winter damage is often a function of desiccation caused by direct exposure to prevailing winds.

Harvest: Trees begin bearing three years after planting with respectable crops after five years and peak capacity reached after seven. In Saskatoon 'SK Carmine Jewel' is harvested in late July and early August. The fruit holds well for at least three weeks after ripening. Future cultivars slated for release should extend the harvest season to early September.

Yield: Yield data collection is still in preliminary stages. However preliminary estimates fall in the range of 10 to 15Kg per fully mature tree.

Pests: Deer browse winter twigs as well as leaves and fruit so deer fencing is recommended. At the U of S we spray two to three times per season in June for cherry fruit fly. Very few other pests are observed. The trees show excellent resistance to black knot, but a few cases of bacterial canker have been noted.

Pruning: More research is needed to determine optimum pruning techniques for dwarf sour cherries. Until more is known, trees may be pruned to an open centre vase, like plums, or as a renewable shrub like saskatoons. Pruning should be undertaken in late winter or early spring.

Uses and Fruit Quality: The fruit of ‘SK Carmine Jewel’ is red by mid-July, but will become almost black by early August. Because it has bright red juice and high sugar content, it is excellent for juice, wine, or any product where development of a “cherry pink” colour is desired.

Cherry pies in North America are traditionally made with ‘Montmorency’ cherries, which have red skin, yellow flesh and pale pink juice. Fillings made with these cherries are typically dyed to enhance the expected “cherry red” colour. Consumers used to an artificial “cherry red” may perceive pies made with ‘SK Carmine Jewel’ as too dark. You may need to educate consumers that your products are made without artificial dyes.

Motorized cherry pitting machines are difficult to find and expensive. You may wish to buy smaller hand-operated pitting machines and sell them to consumers.

Stains: Dwarf sour cherries do not stain countertops or clothing like other fruits. Countertops usually wipe clean, and stains wash out of clothing with a simple cold water wash.

Market: Cherries are well loved by the public. At a recent horticulture show 50% of people sampling the fruit commented they would eat them fresh with no processing. Pick-your-own cherries are good for customer flow because they follow saskatoons but precede apples.

Contacts: Many nurseries are currently

propagating this cultivar with the primary propagator being D’n’A Gardens, Box 544, Elnora, Alberta (403) 773-2489. People who are new to fruit growing may consider joining one of the provincial associations: Saskatchewan call Charon Blakley (306) 645-4447, Manitoba call Waldo Thiessen (204) 328-8083, Alberta call Nadine Stielow (780) 998-0481. These groups hold conferences, tours and workshops, with members also receiving a subscription to the *Prairie Fruit Journal*.

Website with photo of SK Carmen Jewel:
<http://www.usask.ca/agriculture/plantsci/hortcrops/cherries.html>

Pollination:

Dwarf Sour Cherries are self-pollinating so only one variety is required. Bees help improve fruit set by moving pollen from anthers to the styles.

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Dr. Bob Bors, Rick Sawatzky and Forrest Scharf are currently involved in breeding dwarf sour cherries and other fruit at the University of Saskatchewan.