Dwarf Sour Cherry
— a two page guide

Dr. Bob Bors, Assistant Professor, Department of
Plant Sciences, University of Saskatchewan

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](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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Dwarf sour cherries required 50 years of breeding work to combine cold hardiness, dwarf stature and good fruit quality. The efforts of Dr. Les Kerr, Dr. Cecil Stushnoff, George Krahn and Rick Sawatzky are greatly appreciated.

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