Miscellaneous Berry Crops

Dr. Bernadine Strik, Professor of Horticulture
Extension Berry Crops Specialist

Planting Requirements:
- Full sun and good soil
- Incorporate compost/organic matter
- These berries grow well on a soil pH of 5.8 – 6.5
- Make raised beds to improve drainage in kiwifruit
- Plant in spring
- Buy nice, disease-free plants (usually in 1 gal. pots)
- Plant NO deeper than the original potting mix
- Control weeds
- Irrigate well

Kiwi Vines

Ornamental kiwi vines in the landscape

Actinidia polygama

Male vine
Female vine

Actinidia kolomikta

Female vine

Actinidia purpurea

Types of kiwifruit in the PNW
- “Fuzzy” kiwifruit (Actinidia deliciosa)
  - large fruit; skin not “edible”; not cold hardy enough for cold regions
- “Arctic” kiwifruit (A. kolomikta)
  - small fruit with edible skin; cold hardy; vines need shade; nice ornamental (bitter fruit)
- “Hardy” or “Baby” kiwifruit (A. arguta)
  - small fruit with edible skin; cold hardy; fruit will vine ripen; great flavor
“Fuzzy” Kiwifruit:

Hayward
Very late (doesn’t vine ripen)
Large fruit
Skin covered with brown “fuzz”
good, sweet flavor when ripened
Vine needs 225 to 240 frost-free days
Only hardy to 10° F; often see cold
damage in Willamette Valley

All “fuzzy” kiwifruit vines need a male \(A.\ deliciosa\)

“Hardy” Kiwifruit:

• This species \(A.\ arguta\) is
  hardy to -10 to -25° F
• very vigorous plants

Ananasnaya
Early (Vine ripens in late Sept)
Small fruit
Excellent aromatic flavor
Skin is smooth and edible; develops
a red blush in the sun

Issai
Early
Smaller fruit than Ananasnaya
Excellent aromatic flavor
Skin is smooth and edible
Plants are self-fertile, but fruit benefit
from cross pollination

The Hardy Kiwifruit

Need male plant for fruit production on female

Year 1, training trunk

Year 2: training cordons
Pruning Vines

- Prune female vines in the winter (Dec. - Feb.)
- Prune male vines lightly in winter and prune heavy in summer, after bloom (in mid-June)

Wood selection

This pruning is recommended when there is a strong basal vegetative shoot

Diagram shows where fruit was produced last season

3 to 4 year old vine before pruning

Cordon (one in each direction)

Fruiting canes (15-20/cordon)
Harvest

- Kiwifruit do further ripen after harvest
- Color is not a good indication of maturity -- measure Brix if you can

Harvest of Hardy Kiwifruit

Can be harvested in early Sept. at a Brix of 8-10. Seeds will be black

If you don’t have a refractometer, pick fruit at “hard” green stage when about 5% of fruit are soft or pick as vine ripen

Harvest of “Fuzzy” Kiwifruit

‘Hayward’ does not vine ripen. Harvest when fruit have black seeds and are “ripe” enough to ripen off the vine. Typically after the first hard frost in the Willamette Valley. Fruit will tolerate light frost

Immature fruit will have brown seeds. This fruit will not ripen normally if picked

Mature yield has ranged from 60 to 130 lb/vine
Storage of Kiwifruit

- "store" fruit on the vine as long as possible
- In hardy kiwifruit, soft, vine ripe fruit will not store. Pick fruit for storing when physiologically mature and still hard and green
- Store fuzzy kiwifruit in a cold garage or fridge for about 1 month before trying to ripen; once softening starts ripen batches at room temperature. Store all types in vented plastic bags as close to 32 °F as possible
- Remove soft, ripe fruit for eating, or ripen at room temperature
- Fuzzy kiwifruit will keep for months, hardies for about 4 weeks

Winter Cold Damage

- 'Hayward' most sensitive
- Protect vines by using trunk wraps in cold areas

Frost Damage

- Frost damage in hardy kiwifruit at temperatures below 32 °F
- Occurs in all types of kiwi
- Even though hardy kiwifruit have good cold tolerance, buds/shoots will break early in year. Frost damaged buds/shoots produce no fruit.
- The entire crop can be lost to frost
- Overhead irrigation is used commercially
- Rowcovers might work in the home garden

Root rot

- All are very sensitive to root rot
- Plant on sites with good drainage
- Use raised beds
- Mature vines can die from root rot
- Vines with root rot will show dead areas like this when the bark is scraped away the crown/trunk

Fruit Damage from rubbing

- Fruit scarring can occur
- This is usually the result of fruit rubbing together or against leaf stems
Sunburn damage to exposed fruit

'Kens Red' early October. Manage canopy to try to minimize fruit exposure.

Currants & Gooseberries

Gooseberry

Currants

Ribes aureum

Ribes sanguineum

Bushes grow 2-6' tall

Currants are thornless & gooseberries are thorny

Pruning

Spurs on two-year-old wood

Non-productive one-year-old wood

• Red currants and gooseberries produce most fruit on spurs on two- and three-year-old wood

• Keep 10-12 canes/bush (about a third each of strong one-, two-, and three-year-old wood)
Aphids Production Problems

Bottom of leaf

Top of leaf

Currant borer

Adult is a moth
Larvae tunnel in canes
Infested canes wilt
Red currants most susceptible
Remove infected canes and destroy

Imported Currant Worm (sawfly)

Adult is a sawfly
Larvae feed on leaves defoliating canes

Powdery mildew

Leaves and fruit infected on susceptible cultivars
Plant resistant cultivars
Ensure good air circulation

Haskap

Lonicera caerulea

• Well-adapted to all areas in Oregon
• Native to Japan
• Flowers are frost tolerant
• Berries tart but flavorful
• Great for processing

Haskap

“honeyberry”, “edible honeysuckle”

• Well-adapted to all areas in Oregon
• Best cultivars have been bred (selected here) by Dr. Maxine Thompson: Hoka; Kaido; Solo; Taka; Tana; Keiko; Kawai; Chito; Maxie
• Starting to become available at US nurseries
• Plants need irrigation but are broadly adapted to various soils
Lingonberry
*Vaccinium vitis-idaea*

Native to the circumpolar boreal region.
A creeping, evergreen species

Same family as blueberry
Need acid, high organic matter soil
Plants have rhizomes and can spread vegetatively

There are two bloom periods (spring and summer) and so two crops/year. Plants grow about 1.5’ tall.

‘Red Pearl’
‘Koralle’
Need cross pollination for fruit production

Full sun, low pH, high organic matter
Low fertilization

Elderberry
*Sambucus canadensis*

Amelanchier alnifolia
“Service Berry” or “Saskatoons”
Aronia melanocarpa
the "chokeberry"

Goji Berry (Wolf berry)
*Lycium barbarum*