Raspberries for the Home Garden
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http://extension.oregonstate.edu/catalog/

Aggregate fruit of many drupelets

calyx

drupelet

Oregon Natives:

Rubus spectabilis
The "salmon berry"

Rubus parviflorus
The "thimble berry"

Rubus leucodermis
Native black raspberry
"blackcap"
Morphology

- Primocane: first year cane, often vegetative
- Floricane: second year cane, always flowering/fruiting;
- Canes are biennial (cane or cane portion dies after fruiting)
- Roots and crown (base of plant) are perennial

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Raspberry types

- Red raspberries
  - Summer-bearing (June-July)
  - Primocane-fruiting (“everbearing”) – (Aug-Oct)
- Black raspberries
  - Summer-bearing (June)
- Purple raspberries
  - Summer-bearing (June-July)

First year summer-bearing raspberry planting

- Fertilize with 0.5 to 1 oz N/plant divided into thirds (2 weeks after planting; 1 month later; 1 month later)
- For example: 1 to 2 oz of 16-16-16 per application per plant

Hedgerow (management/training system)

- Individual plants not readily visible; have a “solid” hedge of canes
- Maintain hedgerow to 0.5 to 1 ft wide

Hill System in winter – see individual plants
remove suckers between plants and in aisles

Winter after planting
Summer-bearing red raspberry
Primocane & Floricane Development – Spring

Fruiting laterals growing on floricanes
New primocanes emerging from crown & roots

Floricane Development
Fruiting laterals on floricanes

Harvest......June-July

Prune out dead floricanes
Dying floricanes
Primocanes

Post- harvest..... August
Summer-bearing red raspberry, after harvest, floricanes are dying and can be pruned out at this point (especially if disease present). Can also wait until fall

Prune out dead or dying floricanes
Dying floricanes
Primocane

Bernadine Strik, Professor, Oregon State University
Prune out dead or dying floricanes

- Single dying florican
- Bundle of dying floricanes removed from 1 plant
- Dead fruiting lateral

Tuck between wires

Typical trellis system has 1 or 2 top wire(s) and 2 lower wires (in some cases moveable) but there are many variations

- Primocanes remaining after “caning out”
- Do not prune further until fall/winter
- Can compost prunings; commercial growers chop them between rows

Prune primocanes from December to March

- Remove weak, broken canes
- Remove canes outside row or hill
- Bundle canes
- Tuck canes

Summer-bearing red raspberry

- Primocanes just prior to training
Canes are slightly topped and then are trained and tied to adjacent plant or tying wire. This is done in late winter to minimize risk of cold injury.

Established summer-bearing raspberry
- Fertilize with about 1 to 1.5 oz N/plant in spring
- Divide into thirds (early April; late May; late June)
  - For example: 2 to 3 oz of 16-16-16 per application per plant

Summer-bearing red raspberry
- Primocanes just prior to training

Summer-bearing raspberry
- Mid-spring growth
**Summer-bearing raspberry**

Late spring growth

Do NOT tip the primocanes

Control any emerging primocanes between rows by tillage or growing a grass cover crop.

Publication:

“Raspberry Cultivars for the Pacific Northwest”

http://extension.oregonstate.edu/catalog/

**Cultivars (W. Oregon):**

Summer-bearers – Root Rot resistance/tolerance

- Prelude
- Squamish
- Cascade Bounty
- Cascade Delight
- Cascade Harvest
- Cascade Dawn

**Cultivars (W. Oregon):**

Summer-bearers – More susceptible to root rot

- Meeker
- Tulameen
- Chemainus
- Cascade Gold

**Cultivars (E. Oregon):**

Cold-hardy summer-bearers with good flavor

- Prelude
- Boyne
- Killarney
- Canby
- Cascade Bounty

**Primocane-fruiting raspberry (“everbearers”):**

Tip of primocane produces fruit in its first year

- Killarney
Primocanes start growing in spring at a certain node number (age), they bloom. Primocanes emerge from crowns and root buds.

Tip portion of primocane will fruit in planting year. Fruiting season is approx. early August to frost.

Penod portion of primocane fruited in planting year. In second year, base of floricanes will fruit in early summer. Part of primocane that fruited (tip) dies. Showing dead tip and basal floricanes.

Primocane-fruiting Raspberries
For a fall (primocane) crop only

Leave about a 3-4” stubble

Primocanes grow in spring

No cane in winter so recommended for very cold sites

Primocane-fruiting Raspberries
For a fall (primocane) crop only
Before pruning

Primocane-fruiting Raspberries
For a fall (primocane) crop only – early Spring

- New primocanes grow in spring
- Maintain row to 1 to 1.5ft wide

Primocane-fruiting Raspberries
For a fall (primocane) crop only – early Spring

Cultivars (all regions for primocane crop only)
Note: in cold regions, double-cropping will require you plant a cold-hardy cultivar; see cultivar publication

Heritage
Caroline
Fall Gold
Anne

Brazelberries™ Raspberry Shortcake

Raspberries in containers

Amity
Vintage

Heritage, Caroline, Fall Gold, Anne

Fall Creek Farm & Nursery
Nursery plants

Planting

New primocanes grow from basal cane stub & roots

Primocane-fruiting raspberry - grown

Primocane-fruiting raspberry

Black Raspberries

Trail and photos: B. Strik

Jewel (only cultivar recommended for good production & flavor)
Purple Raspberries
Hybrids of red and black raspberry

Brandywine

Royalty

Black raspberry
Planting year
- Plant 3 ft in the row on raised beds or flat ground
- Install trellis in planting year (T post at about 4 ft high)
- Train canes onto wires for harvest the following year

Black raspberry
Winter

Primocanes only emerge from crown

Black raspberry
Early spring

Black raspberry florican in spring
**Black raspberry**
- Primocanes have strong apical dominance
- Tip (remove about 6 inches) during the growing season to get branching

**Black raspberry field**
Spring – prior to first harvest

**Tip rooting** (when branches touch soil in late fall)

**Black raspberry**
Remove dead floricanes
Shown here in summer

**Black raspberry**
Dead fruiting lateral

**Black raspberry**
Remove dead floricanes
In winter before pruning

Dying floricanes
Arcing primocane branches (Aug.)
Poor Fruit Set – Black raspberry
- Blackcaps are sensitive to poor fruit set (crumbly fruit)
- Poor pollination in rain
- Blackcaps are sensitive as bloom is early and flowers are held in a flat position

Raspberry Bushy Dwarf Virus 
**RBDV**
- Pollen borne
- ‘Meeker’ is very susceptible
- No control for infected plants

“Crumbly” fruit on susceptible cultivars; sometimes leaf symptoms on susceptible primocane-frueting cultivars

Viruses and crumbly fruit – Black raspberry
- Fruit from virus-infested plant
- Fruit from healthy plant (same cultivar)

Phytophthora Root Rot
- Floricane symptoms at harvest red raspberry
- Primocane collapse in blackcaps

- Plant resistant cultivars
- Plant in well-drained soil on raised beds
Verticillium
- Blackcaps are sensitive
- Plants wilt and die in late summer
- Plant only certified plant material
- Avoid sites that had other sensitive hosts (Solanaceous)
- Remove and destroy infected plants. Do not replant in these areas

Botrytis
- Botrytis on fruit and cane botrytis
- Disease is promoted by a warm, moist environment. Maintain an open canopy
- Avoid overhead irrigation and late watering

Yellow Rust
- Cultivate in late fall to bury/remove fallen leaves
- Remove and burn infected floricanes right after harvest
- Do not tie up new canes until all leaves have fallen

Herbicide Damage
- Phytotoxicity from Round-Up®
- Leaves are chlorotic and strap-like

Heat/u.v. Damage
- Red raspberries, in particular, are sensitive to damage from intense u.v. light
- Symptoms are white drupelets on the sun side of fruit
- Shading reduces problem
- Symptoms don't occur in all years

Crown Borer
- Two-year life cycle
- Adult lays eggs on leaves
- Larvae burrow into crown and into new primocanes
- Canes collapse
- Only home control is rouging out infected plants
Spotted Wing Drosophila

Drosophila suzukii

Actual size 2-3 mm

Female with serrated ovipositor
Male with spotted wings

Spotted Wing Drosophila

From OSU Extension Publication, EM8991

The End

Courtesy, WSU