



WSU EXTENSION  
Cowlitz County

# Growing Raspberries in your Garden

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WSU Cowlitz County Extension  
Master Gardener Program



# Mission










Engaging university-trained volunteers to empower and sustain diverse communities with relevant, unbiased, research-based horticulture and environmental stewardship education.

*If you are interested in becoming a WSU Extension Master Gardener, please contact Gary Fredricks, 360-577-3014 Ext. 3*





## Our Program Priorities

 <p>CLIMATE CHANGE</p>	<p><b>Climate Change:</b> We teach ways to create resilient landscapes that are adapted to our changing climate.</p>	 <p>SOIL HEALTH</p>	<p><b>Soil Health:</b> We encourage building healthy soils to prevent depletion and ensure the long-term viability of local food security &amp; natural resources.</p>	 <p>PLANT BIODIVERSITY</p>	<p><b>Plant Biodiversity:</b> We promote stewardship of diverse ecosystems through invasive species management, native species conservation and restoration in landscapes.</p>
 <p>CLEAN WATER</p>	<p><b>Clean Water:</b> We promote integrated pest management to minimize polluted runoff.</p>	 <p>POLLINATORS</p>	<p><b>Pollinators:</b> We teach ways to help native bees and other pollinators thrive in home and community landscapes.</p>	 <p>NEARBY NATURE</p>	<p><b>Nearby Nature:</b> We seek to increase access to plants, green spaces, and public landscapes to benefit the health &amp; well-being of all members of our communities.</p>
 <p>WATER CONSERVATION</p>	<p><b>Water Conservation:</b> We promote water-wise gardening and landscaping practices to conserve water.</p>	 <p>LOCAL FOOD</p>	<p><b>Local Food:</b> We promote sustainable techniques to growing local food to improve individual &amp; community health and wellness.</p>	 <p>WILDFIRE PREPAREDNESS</p>	<p><b>Wildfire Preparedness:</b> We teach landscaping principles to reduce the risk of loss due to wildfire.</p>



# Raspberries -What we're going to talk about

- Variety selection
- Selecting a site
- Preparing the soil
- Planting
- Fertilizing



- Irrigation
- Growing raspberries in containers
- Trellising and pruning
- Pests and diseases



# Share with us...

## Please type the NUMBER(s) in the chat

1. I currently grow **summer bearing** raspberries.
2. I currently grow **fall/everbearing** raspberries.
3. I currently grow raspberries--and **don't know which kind** I'm growing.
4. I want to know which **raspberries cultivars** grow well here.
5. I need info about **pruning**.
6. I need info about **fertilizing**.
7. I want to know how to grow **raspberries in pots**.
8. I want info about **protecting raspberries against extreme heat**.



# Why Grow Raspberries

In a word: YUM!

Expensive to buy, don't stay fresh long

Plants live a long time, and stay productive



# Raspberry

# or Blackberry?

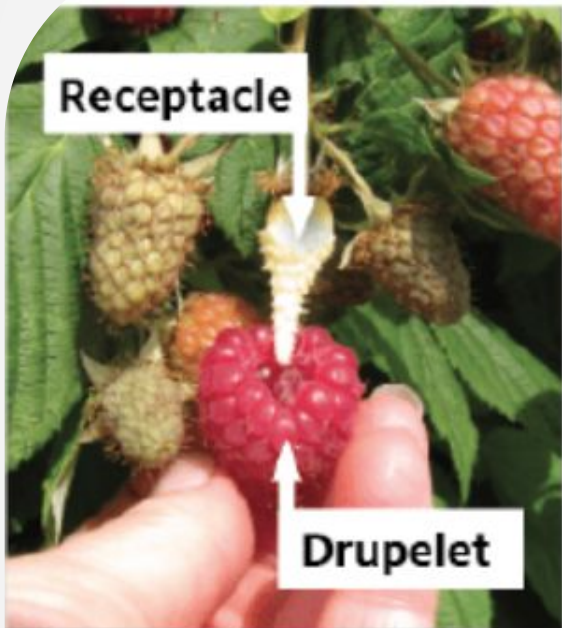


Figure 1A. The receptacle, or plug, stays on the plant when you pick a raspberry.

Photo: Bernadine Strik, © Oregon State University



Figure 1B. The receptacle of a black raspberry also stays on the plant when you pick it.

Photo: Bernadine Strik, © Oregon State University

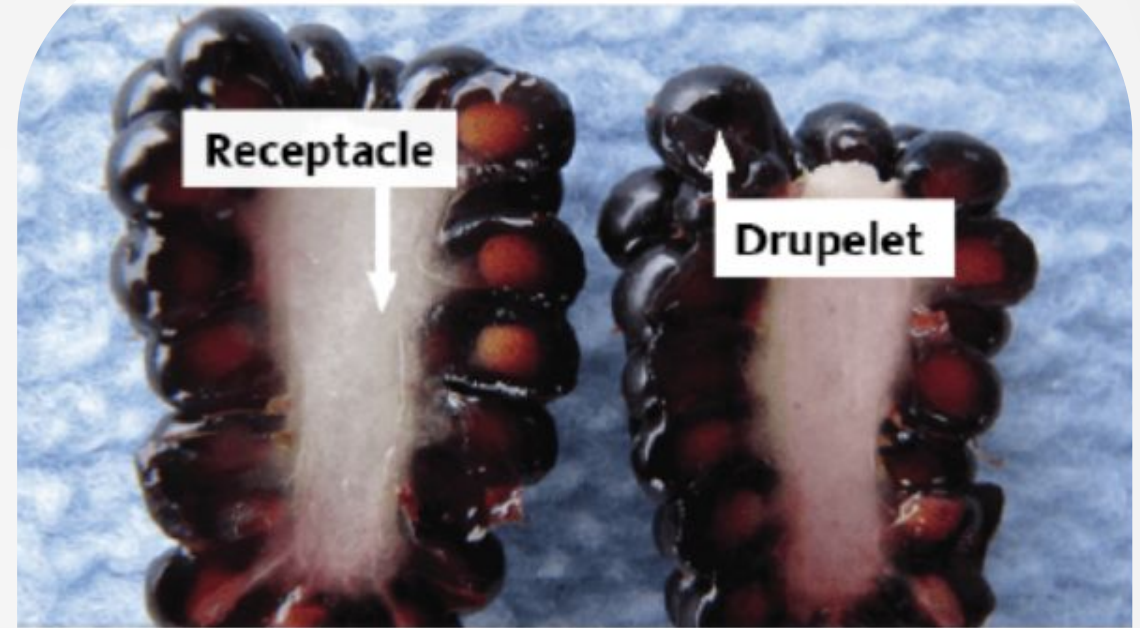


Figure 1C. In blackberry, the receptacle is part of the fruit.

Photo: Bernadine Strik, © Oregon State University



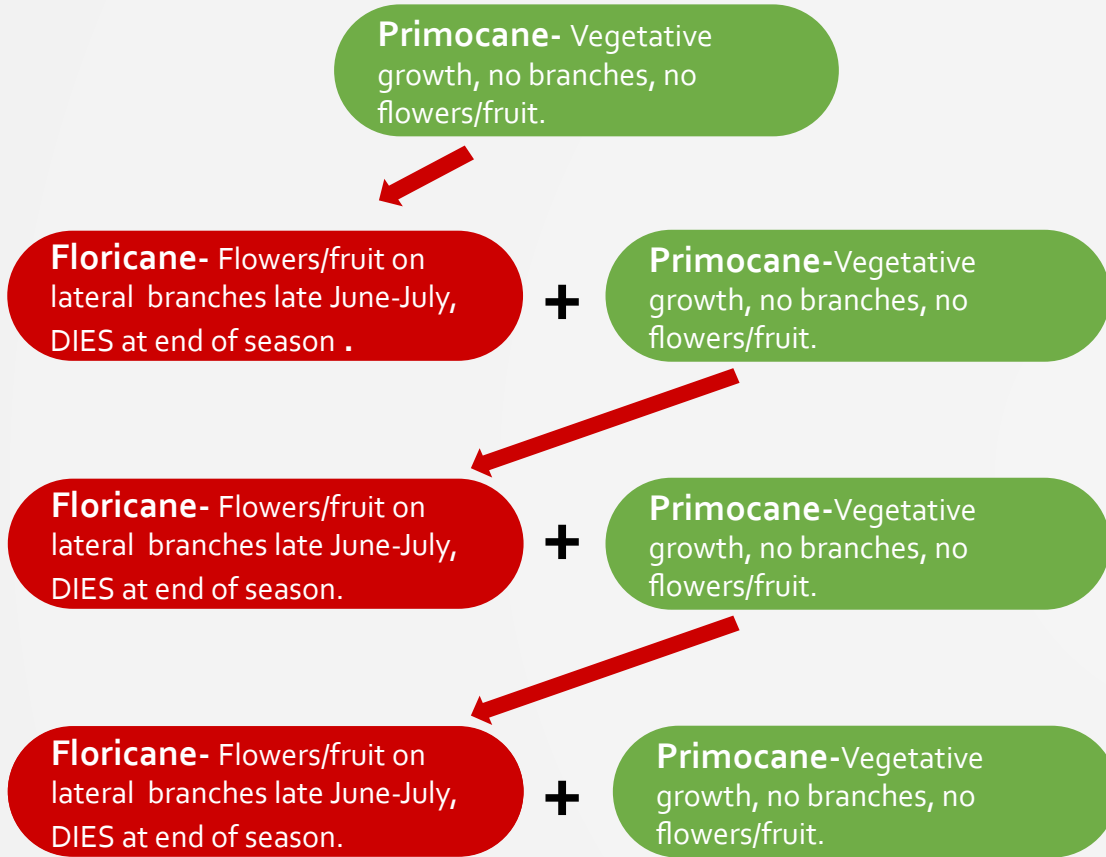
# ALL raspberries

- Have a PERENNIAL root and crown and BIENNIAL canes. This means that all raspberry canes die after two years.
- Put up new canes each year called Primocanes, often just leaves. (Primo = year ONE)
- The second year the primocane are called FLORICANES, and floricanes always **f**lower and produce **f**ruit.
- Floricanes (second-year canes) always die after producing a crop of berries.
- Berries ONLY form on lateral branches, not directly on the main cane.
- Don't like hot/dry weather ( $>80^{\circ}$ ) during fruiting (short canes, soft, poor taste, lower yields). W. WA has been ideal for raspberries. Climate change?



# Summer Bearing

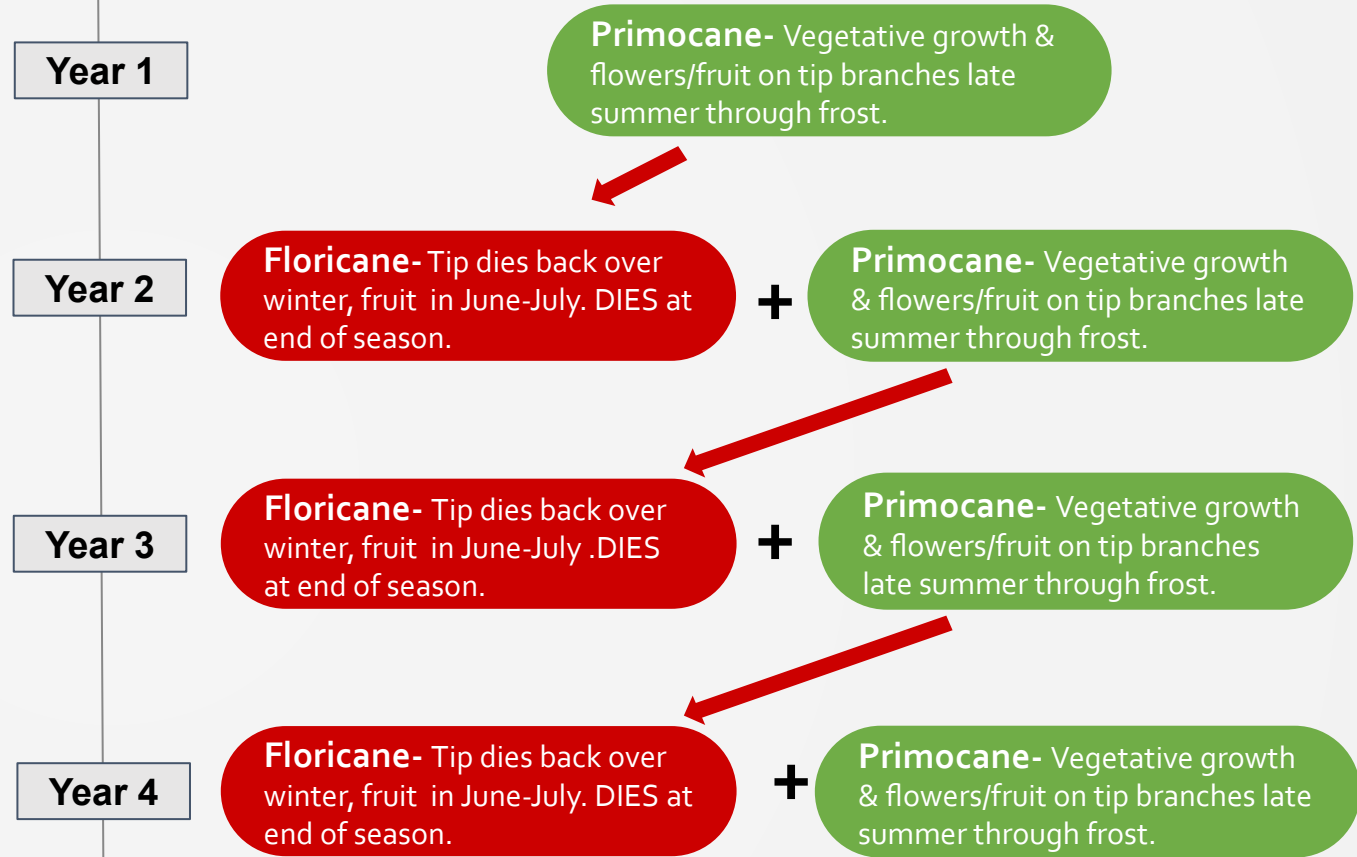
Only one bountiful harvest per year late June/July



**Pruning:** Early spring, remove weak canes. After harvest or in early winter, remove floricanes at crown level. Leave the remaining green canes of the primocanes over winter.

# Everbearing

Only 1 or 2 harvest per year, depending on how it's pruned

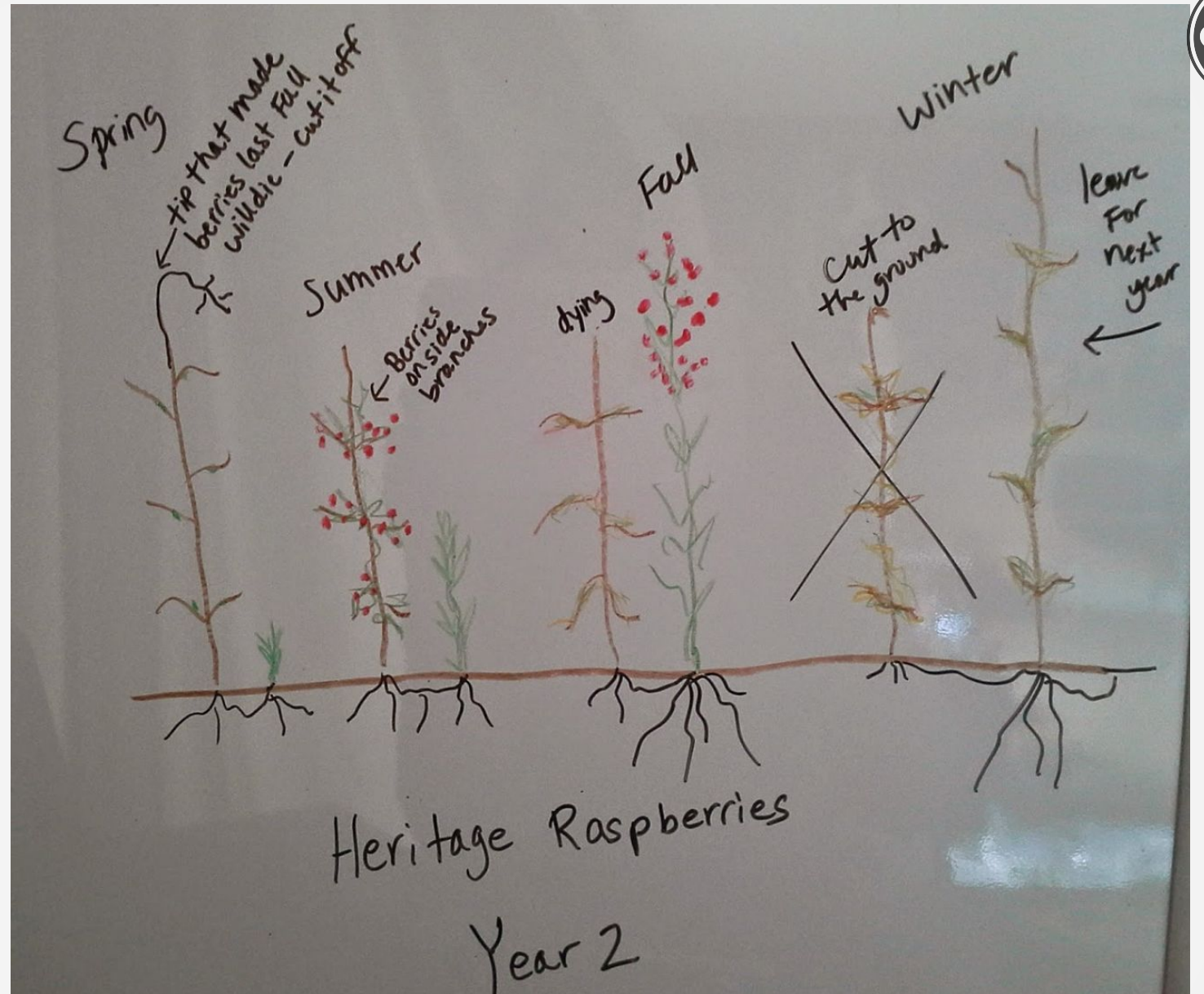


## Pruning:

**Single crop** in late summer, cut down both the floricanes and primocanes to the crown in late winter.

**Double crop**-Late winter, cut down the floricanes and prune off the dead branching tips from the primocanes to a couple of nodes below the dead tips.

# Everbearing raspberry, pruned for 2 crops



# Native Raspberry species



**Salmonberry (*R. spectabilis*)**



**Thimbleberry (*R. parviflorus*)**



**Native Black Raspberry (*R. leucodermis*)  
Blackcap**



**Native Red Raspberry (*R. strigosus*)**





# Types and Selections-Summer Bearing

Table 3. Summer-bearing red raspberry cultivars.

Cultivar	Origin	Harvest period <sup>1</sup>	Fruit and plant characteristics	Fruit Flavor	Disease resistance to root rot and raspberry viruses
Chemainus	2006 Agriculture Canada	Early	Medium-sized fruit. Medium yield. Considered a replacement for "Meeker" in terms of yield (Kempler 2006).	Excellent (Finn and Strik 2014)	Prone to root rot, though less than "Meeker"; prone to viruses (Martin et al. 2013).
Meeker	1967 WSU Puyallup	Mid	Medium fruit size and firmness. Medium to high yield. Most widely grown cultivar in the Northwest (Steury 2012).	Excellent (Moore, Daubeny 1993)	Prone to root rot and susceptible to viruses.
Tulameen	1991 Ag Canada	Mid-late	Very large fruit size; firm and attractive berries. Extended harvest season. Widely grown for the fresh market (Daubeny 1991).	Excellent	Very prone to root rot and susceptible to viruses.
Cascade Delight	2004 WSU Puyallup	Late	Very large fruit size (exceeds "Tulameen"). Very firm berries with attractive, glossy appearance (Moore 2004)	Excellent	Tolerant to root rot and susceptible to viruses.

<sup>1</sup> The earliest-ripening cultivars ripen in late June in southwest Washington, and early July in the northwest portion of the state.



# Types and Selections-Summer Bearing

Cascade Gold	Very susceptible to root rot, immune to RBDV	Vigorous	Large size, yellow fruit, excellent flavor, retains good flavor even when picked at firm stage
Willamette	Susceptible to root rot, immune to RBDV	Vigorous	Medium size, soft, dark red, very good flavor
Cascade Harvest	Tolerant to root rot, resistant to RBDV	Vigorous	large red early ripening

**One harvest per season**



# Types and Selections

**Summer bearing** raspberries for colder areas (one harvest/season):

## Red and Yellow

- Canby: Zones 4-7
- Boyne: Zones 3-7
- Encore: Zones 4-7
- Killarney: Zones 4-7
- AC Eden: Zones 4-8
- Prelude: Zones 4-8



## Black or purple raspberry-

- Jewel (black): Zones 5-8
- Brandywine (purple): Zones 4-8
- Royalty (purple): Zones 4-8

# Types and Selections--Fall Bearing Red Raspberries



Table 4. Fall-bearing red raspberry cultivars.

Cultivar	Origin	Harvest period <sup>1</sup>	Fruit and plant characteristics	Fruit Flavor	Disease resistance to root rot and virus susceptibility
Autumn Bliss	1984 Great Britain	Very early	Larger than "Heritage." Medium yield. Ripens 10–14 days earlier than "Heritage." Fair firmness (Keep 1989).	Good	Resistant to root rot, but susceptible to viruses.
Fall Gold	1967 New Hampshire	Early	Yellow fruited. Soft fruit. Medium yield (NCGR 2015b).	Mild, sweet flavored fruit	Tolerant to root rot, but susceptible to viruses.
Summit	1989 Oregon State University	Early	Equal in size and firmness to "Heritage." Difficult to pick under hot conditions. Medium to high yield (NCGR 2015a).	Good	Resistant to root rot, but susceptible to viruses.
Anne	1996 Rutgers University	Early	Large, yellow fruit. Medium-to-high yield. Soft fruit (Swartz et al. 1998a).	Excellent	Highly prone to root rot, and susceptible to viruses.
Caroline	1998 Rutgers University	Early	Large red fruit with moderate firmness. Ripens 1–3 weeks prior to "Heritage" (Swartz et al. 1998b).	Good	Good resistance to root rot; virus susceptible.
Polka	1981 Poland	Mid	Medium to large fruit. Soft (Weber 2012b).	Excellent	Resists root rot and viruses.
Heritage	1969 New York	Late	Large, dark fruit. Winter hardy to -30°F. Medium yield (NCGR 2015c). Late ripening can limit yield.	Bland	Prone to root rot; virus resistant (Finn and Strik 2014).
Vintage	2013 USDA/Oregon State University	Very late	Large, bright fruit. High yield. Overall fruit characteristics considered better than "Heritage," as they are 30% larger (Finn et al. 2013).	Excellent	Susceptible to root rot. Susceptibility to viruses has yet to be determined.

<sup>1</sup> In the southwest part of the state the earliest cultivars ripen in early August, while the latter season cultivars ripen in the last half of August into September.

Up to two harvests per season



# Selecting a Site



- Full sun
- Avoid sites where solanaceous plants, strawberries, and other cane berries were grown in the past 3 years
- Soil must have excellent drainage--avoid clay soils
- Better choice is to grow in raised bed, or 1.5-2ft. mounds
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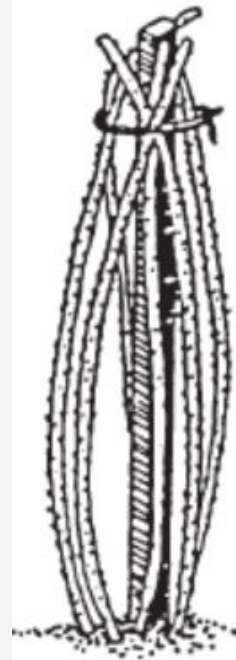
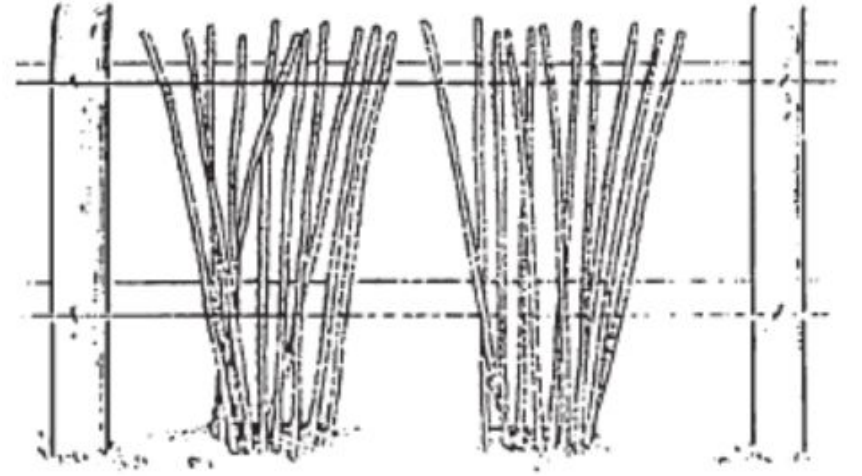


# Preparing the Soil

- Amend soil in the fall, plant in spring. Work organic matter--leaves, compost, sawdust, manure--into the soil. ([Improving Garden Soils with Organic Matter, EC 1561](#))
- pH 5.5 - 6.5--test soil pH in summer before amending, add lime as recommended in the fall. (Soil testing <http://simplysoiltesting.com> )
- For best drainage, create and plant on raised mounds 1½ to 2 feet high & 2 feet wide
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# Support options:

The goal of trellising is to keep the canes off the ground.



***Staked hill.***



***Free standing.***



# Support options:

Plants at 2 ft. apart

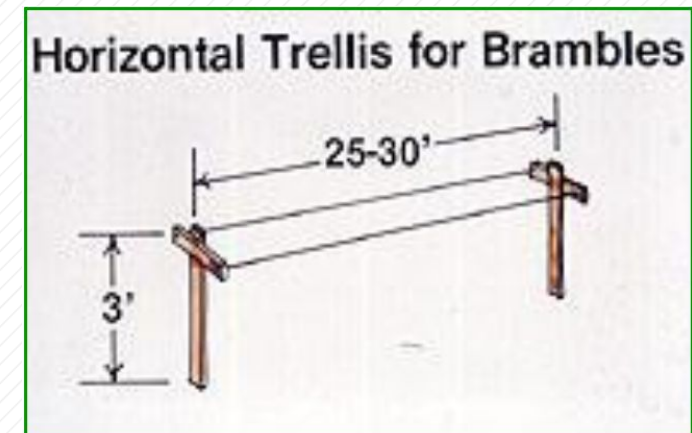
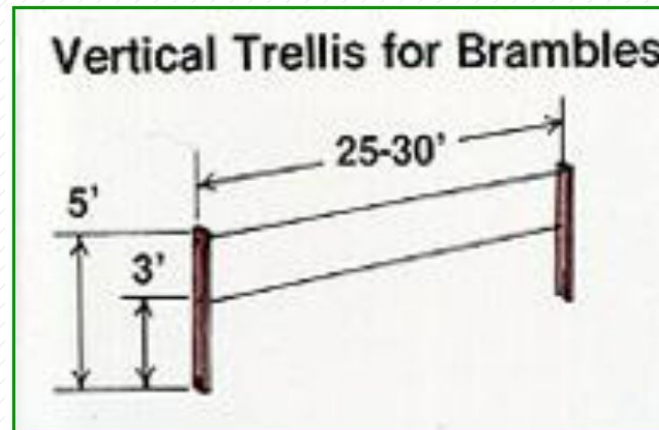
Rows should be at least 8 feet apart, **6-12 inches wide**

Hoe or pull out errant primocanes

Trellis--posts with wire or twine for support



Healthy red raspberries grown in rows spaced 10' apart. Photo: Charles Brun. OSU





# Planting options-Hill system

Treat each plant as an “individual.”

- Train the canes in winter in a hill or bunch by tying them together and to the top wire of the trellis.
- 20 primocanes per hill
- Each plant needs 1-1.5 feet to grow
- Prune off new growth between plants



Photo: Bernadine Strik



# Planting

\* Buy certified disease free plants from a nursery

- Plant in in early spring as soon as soil can be worked
- Bare root--best and most common
- Heel in if you can't plant them right away (cover roots with moist soil or sawdust, 35-45°).
- Trim long roots, if needed--if planting in a container.
- Planting raspberries are different because they have buds on the roots.



**Figure 13. Raspberry bare-root nursery plant**

Photo: Bernadine Strik

\*\*Planting in pots/containers will be covered later



# Planting

- Spread out the fine, bare roots on the soil
- Cover with soil so the highest point where the roots attach is 1.5 inches in the ground.
- Water in and tamp down.



**Figure 14. Bare-root raspberry plant roots spread flat in a shallow planting hole (A) and covered with soil (B).**

© Amanda Davis

# Pruning

**For Everbearing  
(primocane-fruiting)  
raspberries:**

- Keep the hedgerow about 12-18 inches wide during the growing season by pruning the outer primocanes

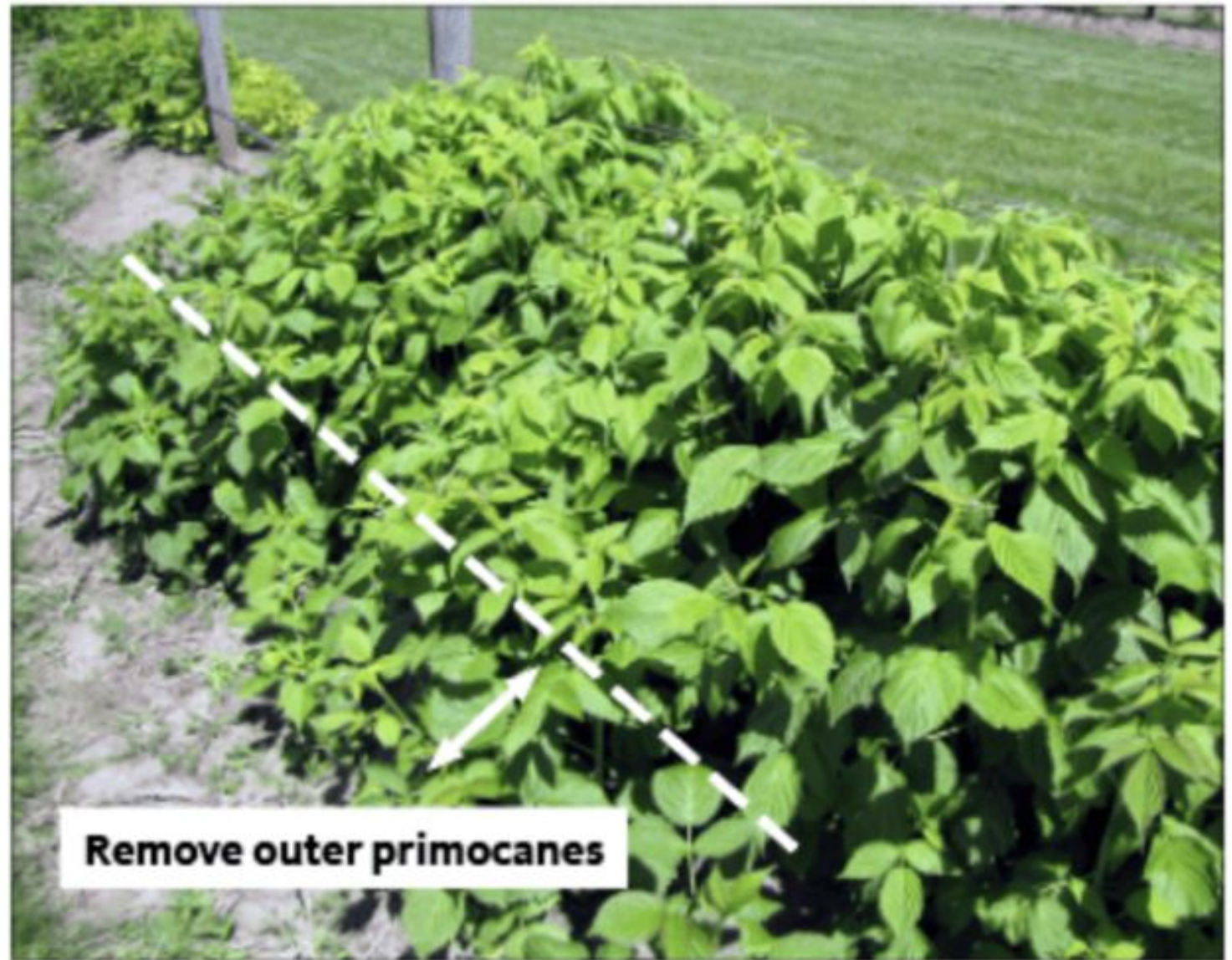


Photo: Bernadine Strik



# Pruning

## For Everbearing (primocane-fruiting) raspberries:

- In winter, remove cane tips that fruited on the tips of the primocanes last fall.



Photo: Bernadine Strik





# Pruning

## For Everbearing (primocane-fruiting) raspberries:

- In winter, remove cane tips that fruited on the tips of the primocanes last fall.
- After harvest in July, remove the canes that die.
- Late summer/fall crop will grow on the new primocanes.
- **\*The easiest way to manage primocane-fruiting raspberries is to cut the primocanes to the ground each winter in late February or early March.**



# Pruning

## **For summer-bearing red raspberries:**

- Remove dead fruiting canes in late summer.
- During the dormant season (January through early March), remove weak, broken, and diseased canes to the crown or soil level.
- Leave 10 to 12 of the strongest canes in each hill if planted in hills.
- Narrow the row to about 12 inches wide if planted in a hedgerow.
- Shorten canes to about 5½ to 6 feet tall for easier training and picking.

# Pruning summer bearing raspberries:

## After Harvest

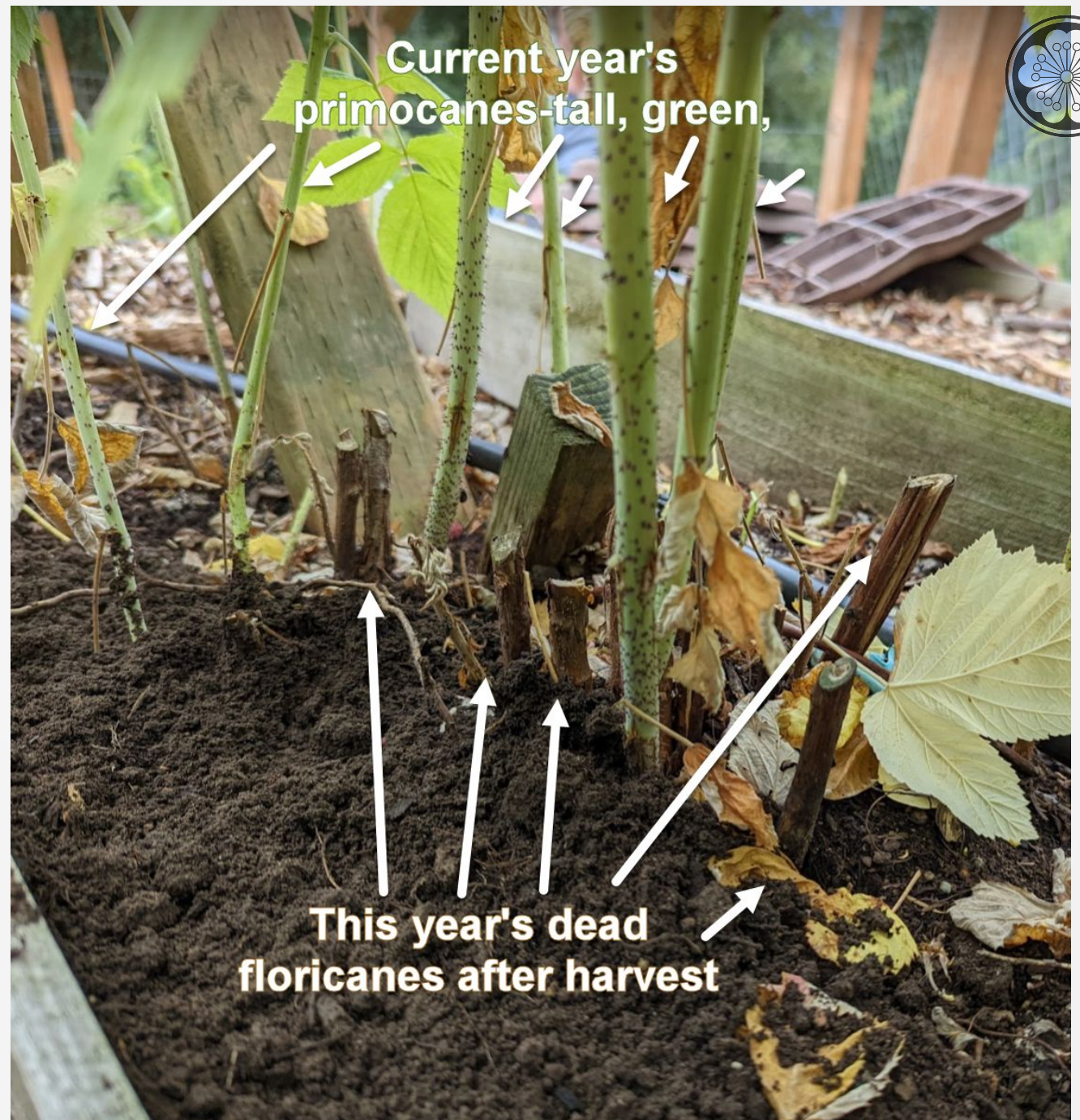
- Fruit-bearing floricanes are dying
- Cut floricanes to the ground

## Spring Pruning:

- Removing weak canes
- Trim back tall canes to a height of 4.5 to 5 feet.



# Pruning summer bearing raspberries



# Pruning summer bearing raspberries

Floricanes removed, primocanes remain to overwinter



# I don't know if I have everbearing or summer bearing raspberries



In spring, if you have a tall canes with **branching tips that have died back to a cane with tiny new leaf buds**, it's an **everbearing** plant.



In spring--if you have tall **canes with *no branching* and tiny new leaf buds**, and no leftover evidence of fruit, it's a **summer bearing** plant.



# Fertilizing



Major nutrients NPK (nitrogen, phosphorus, and potassium)

Nitrogen is the nutrient that is most important in home gardens.

Raspberry leaves should be dark green if they have adequate soil nutrition.

Pale green or yellowing leaves could be a nutrient deficiency, soil pH, insect, or disease problem.

However, plants with nitrogen deficiency have older leaves that are yellowing compared with the newer leaf growth.



# Raspberries: Fertilization Schedule

Age of plants	St Patrick's Day	Mother's Day	Father's Day
New	½ to 1 oz Nitrogen Per Plant - 2 weeks after planting	½ to 1 oz Nitrogen Per Plant	½ to 1 oz Nitrogen Per Plant
Established	1 to 1.5 oz Nitrogen Per Plant	1 to 1.5 oz Nitrogen Per Plant	1 to 1.5 oz Nitrogen Per Plant

To calculate Fertilizer amount for Nitrogen applications:  
Recommended N (in oz) ÷ amount N in fertilizer  
= amount of fertilizer needed  
Example: Using 16-16-16 formulation:  
 $1.5 \div 0.16 = 9.3$  oz / established plant





# Fertilizers



**Miracle-Gro**

Directions For Use  
Instrucciones

**With Watering Cans**

Indoor Plants: Mix ½ teaspoon (the small end of the enclosed scoop) per gallon of water every 2 weeks.  
Outdoor Plants: Mix 1 ½ tablespoons (the large end of the enclosed scoop) per 1 ½ gallons of water, in a watering can. For best results, soak the soil at the base of plants every 7 to 14 days.

**24-8-14**  
**N-P-K**

**1.5 / .24 =**  
**6.25 oz.**  
**Miracle-Gro**  
**divided into**  
**weekly**  
**portions over**  
**4 weeks**

Miracle-Gro® Water Soluble All Purpose Plant Food 24-8-14  
F 1198

GUARANTEED ANALYSIS	
Total Nitrogen (N) .....	24%
3.5% Ammoniacal Nitrogen	
20.5% Urea Nitrogen	
Available Phosphate (P <sub>2</sub> O <sub>5</sub> ) .....	8%
Soluble Potash (K <sub>2</sub> O) .....	16%
Boron (B) .....	0.02%
Copper (Cu) .....	0.07%
0.07% Water Soluble Copper (Cu)	
Iron (Fe) .....	0.15%
0.15% Chelated Iron (Fe)	
Molybdenum (Mo) .....	0.0005%
Zinc (Zn) .....	0.06%
0.06% Water Soluble Zinc (Zn)	
Derived from Ammonium Sulfate, Potassium Phosphate, Potassium Chloride, Urea, Urea Phosphate, Boric Acid, Copper Sulfate, Iron EDTA, Manganese EDTA, Sodium Molybdate, and Zinc Sulfate.	

Information regarding the contents and levels of metals in this product is available

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Products, Inc.  
14111 Scottslawn Road  
Marysville, OH 43041

**Organic fertilizers** stay in the soil longer, but require more time to be available.

**Inorganic granular fertilizers** are divided into equal portions for even feeding and to minimize salt stress.

**Liquid fertilizers** are used quickly and leech out quickly, so smaller portions may be applied weekly from the times the canes start to grow until early July. May be the best choice for plants in pots. Follow label instructions to avoid fertilizer burn.

# Fertilizers- Organic

Apply at least 1 month before planting so it will be available to the plant

Assuming we needed **1.5 ounces of N** per plant, this is how we'd figure it

- Alfalfa meal - **5-1-1** (FAST RELEASE) -  $1.5 / .05 = 30 \text{ oz. (1 } \frac{3}{4} \text{ lbs)}$  **alfalfa meal**
- Blood meal - **15-1-0** (MEDIUM-FAST RELEASE) -  $1.5 / .15 = 10 \text{ oz}$  **blood meal**
- Nitrogen availability lasts about 2 months
- Cottonseed meal - **6-2-1** (MEDIUM RELEASE) -  $1.5 / .06 = 25 \text{ oz}$
- Dried Poultry litter - **4-3-3** (MEDIUM-FAST RELEASE)  $1.5 / .04 = 37.7 \text{ oz}$  **dried poultry litter**
- Fish emulsion **3-1-1**--fast release  $1.5 / .03 = 50 \text{ oz}$  **fish emulsion**  
(dilute before applying)



# Watering

**One inch water/week--rule of thumb:**  $\frac{3}{4}$  -1 gallon of water per square foot of soil surface area. 3ft. diameter planting hole would need 7.5 to 10 gallons of water!

Can be tricky. Better to water deeply and infrequently to **6-12 inches**.

The **soil should not dry out between waterings**—should be moist—use your finger!

**Drip irrigation is best**—it reduces weeds, conserves water, and keeps the leaves dry.

Single line of drip irrigation per row,  $\frac{1}{2}$  gallon emitters every 18 inches.

Soaker hose can be used, but check soil moisture frequently

If you wand-water, apply at the base of the plants, keeping the leaves dry.



# Growing Raspberries in Containers

- Everbearing best--two harvests
- Full sun
- Pot or bed at least 2 feet deep
- 20-30 gallon container, preferable light-colored or white.
- Soil medium: 1 part perlite or vermiculite, one part bark fines, two parts potting soil.
- You can use a slow-release pellets into the soil (8 cups per cubic yard of your soil mix.
- Make sure the bottom of the pot can drain freely—raise the bottom of the pot off the surface—e.g., 2 x 4s



# Growing Raspberries in Containers

- **Fertilizing**—Use commercial fertilizer or soluble fertilizer at the recommended rates
- New plants—2 weeks after planting 0.3 oz., 0.3 oz. one month later, 0.3 oz one month after the last application
- Established plants: 0.4 oz when new canes start to grow, 0.4 oz late May, 0.4 oz. late June.
- Keep soil evenly moist, mulch



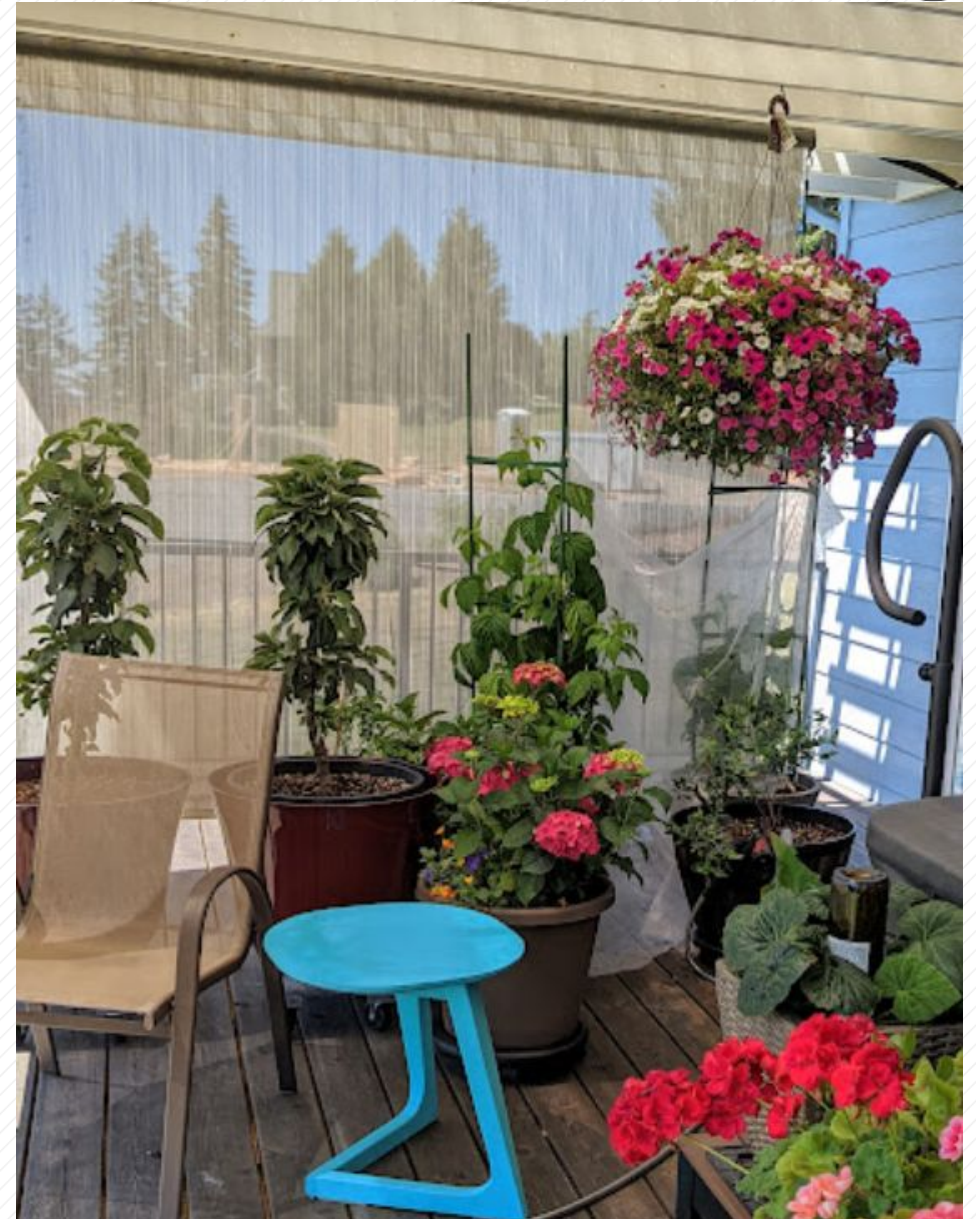
# Growing Raspberries in Containers

- Pruning--up to you--one harvest or two.
- Pruning out excess primocanes is necessary for size control
- Thin the primocanes (new growth) when they are 2 ft tall
- Keep only 5-8 canes



# Growing Raspberries in Containers

- Heat and sun protection
- Light colored pots--direct heat from full sun on the pots can fry the roots.
- Pots on wheels to move them out of the heat
- Create shade in the hottest part of the day.
- It may be hard to keep up with the water needs.
- May wilt in the sun even if soil is moist--don't over-water!





# Weed Management

- Mulch-2-3 inches--keep away from the crown of the plant
- Keeps weeds down, moderates soil temps, reduces soil moisture evaporation
- Arborist wood chips are perfect—2-3 inches—keep away from crown. Leaves, lawn clippings, and wood shavings are also good choices
- Deep straw mulch can attract rodents during the growing season.
- Winter mulch with leaves or straw if you live where the soil freezes.





# Problems, Pests, and Diseases



# Problems, Pests, and Diseases



- Avoid pruning, leaf removal, or fertilization. They still contribute to the plant's photosynthesis.
- Use a layer of organic mulch that is at least 3-4 inches deep. Arborist wood chips are recommended, but any organic mulch can help keep the soil moist and regulate temperature.
- Water plants slowly and deeply, then allow it to dry out between watering
- The roots extend further than their foliage. Be sure to irrigate the entire root zone to ensure that the plants receive sufficient water.
- To maintain healthy and thriving plants, consider regularly applying finished compost to your soil.

# Problems, Pests, and Diseases



Paul Bachi, University of Kentucky Research and Education Center, Bugwood.org

Glyphosate (e.g., Roundup) injury



- Can cause serious disease, mostly in grapes
- Attract beneficial insects
- do not over-fertilize

# Problems, Pests, and Diseases



## Diseases

Raspberry: Anthracnose

Raspberry: Boron deficiency

**Raspberry: Fruit rot and cane**

**Botrytis**

**Raspberry: Phytophthora root rot**

**Raspberry: Powdery mildew**

Raspberry: Spur blight

**Raspberry: Yellow rust**

## Insects

Raspberry: Aphids

**Raspberry: Brown marmorated stink bug**

Raspberry: Cutworms and armyworms

Raspberry: Dryberry mite

Raspberry: Leafrollers

Raspberry: Loopers

Raspberry: Raspberry beetle (raspberry fruitworm)

**Raspberry: Raspberry crown borer**

Raspberry: Root weevils

**Raspberry: Rose stem girdler**

Raspberry: Spider mites

**Raspberry: Spotted wing Drosophila (SWD)**

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# Problems, Pests, and Diseases



## Raspberry: Phytophthora root rot

- Occurs when drainage is poor.
- Fungus attacks the fine root hairs
- Roots commonly “cinnamon” brown
- Fungus remains in the soil and plant debris for years

### What to do:

- Completely remove the plant and destroy--do not compost.
- Don't move healthy plants to that area
- Sterilize all equipment after use
- In the future, be sure of adequate drainage and buy certified disease free plants from a reputable nursery



Dieback and crown rot due to *Phytophthora* sp. OSU Plant Clinic Collection, 2011.

<https://pnwhandbooks.org/plantdisease/host-disease/raspberry-rubus-spp-root-rot>

# Problems, Pests, and Diseases



## Raspberry bushy dwarf virus (RBDV)

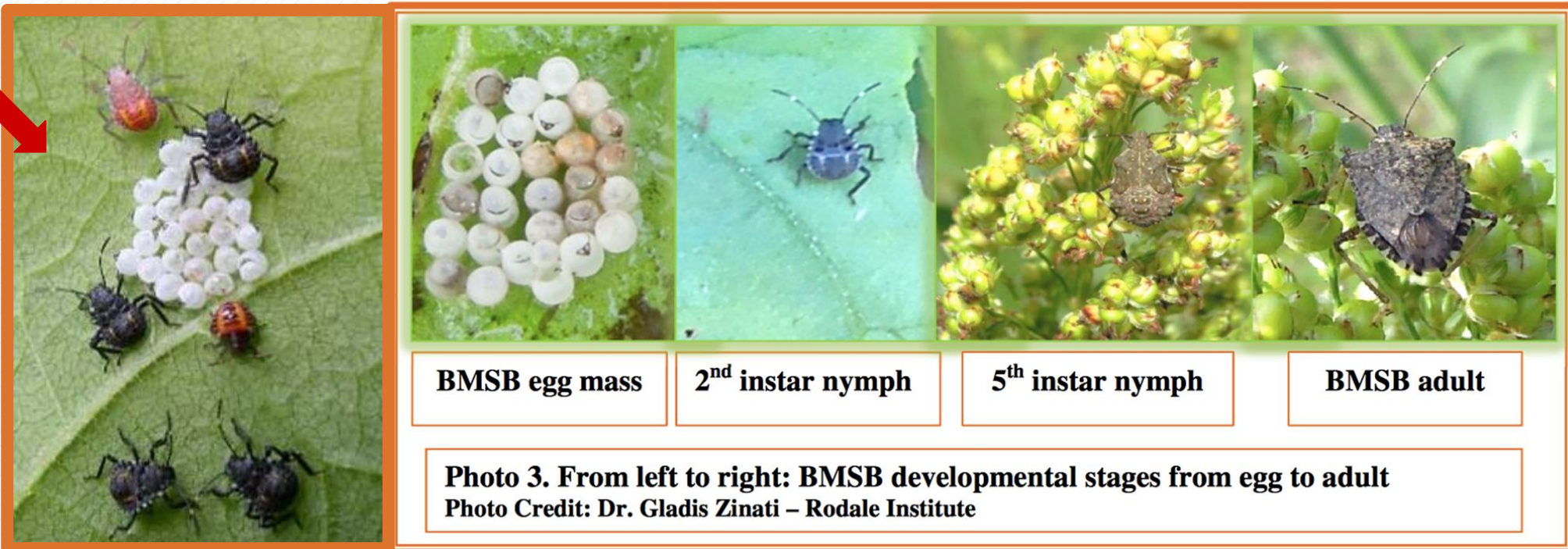
- Transmitted through pollen, typically carried by bees.
- Main symptom is the development of crumbly fruit.
- Infected raspberry plants usually appear normal and do not exhibit bushy or dwarf characteristics.
- 50% decrease in yield, 40% reduction in fruit size
- No way to control RBDV other than replanting with virus-free plants and selecting resistant cultivars.
- When looking to purchase plants, consider all cultivars susceptible to RBDV unless specified otherwise.

# Problems, Pests, and Diseases



## Raspberry: Brown marmorated stink bug

- Pierces fruit, injects foul-tasting enzyme, and suck out the juice.
- Sunken area, distorted, shriveled fruit.
- What to do:
  - Scout for eggs and nymphs
- Plant vacuum, nets, shake onto dropcloth
- Pesticides--target very young nymphs
- Example-EcoGarde, Azera (active ingredient azdirachtin (READ LABEL!))
- Apply at night when bees are not foraging



# Problems, Pests, and Diseases



## Raspberry: Spotted wing Drosophila (SWD)

- Resembles “vinegar flies” but they attack healthy ripe fruit.
- Adults lay eggs just below the fruit surface from the time they are just starting to turn pink until harvest.
- Prefer temps ~ 68°

### What to do:

- Monitor with vinegar traps
- Destroy any infested fruit--do not compost. Bury it or put it in a well-sealed container for disposal
- Pick fruit regularly, including any that have fallen to the ground.
- There are pesticides that can be used--only effective for adults. All are toxic to bees. If you choose to use them, apply at dusk after bees are done foraging.



Hannah Burrack, North Carolina State University, Bugwood.org



Male SWD



Spotted wing drosophila larva and fruit damage  
Photo by: W. Hoashi-Erhardt hortsense.cahnrs.wsu.edu

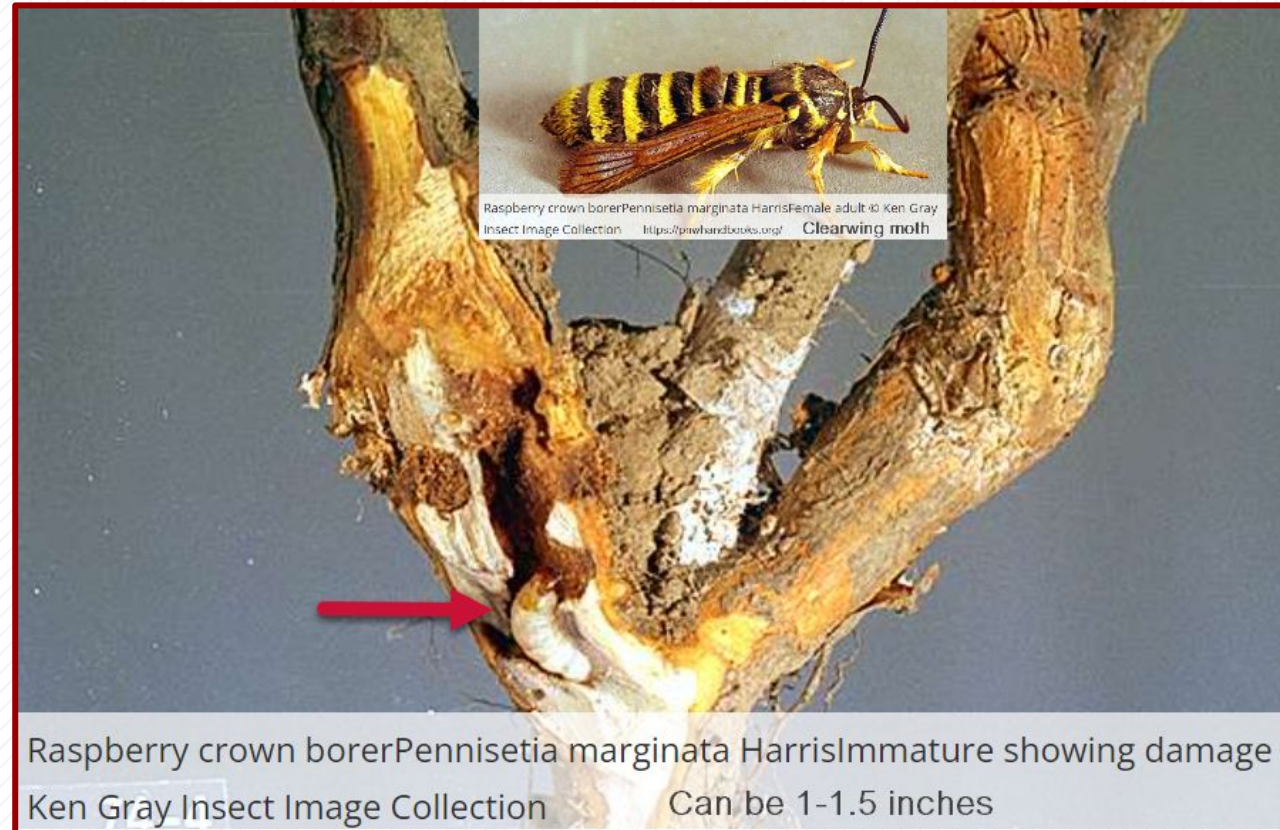


# Problems, Pests, and Diseases



## Raspberry: Raspberry crown borer

- The adult stage of this pest resembles a yellowjacket and lays eggs on the canes.
- Caterpillars hatch in the fall and burrow into the canes at the base, causing damage as they eat.
- After two winters within the canes, they emerge as adults in the summer.
- They can cause severe damage to the canes, roots, and crown.
- What to do:
- Dig plants out and destroy them in late fall or early spring.
- If feasible, remove other hosts like blackberries from the area.
- No effective chemical treatment.



# Problems, Pests, and Diseases



## Raspberry: Rose stem girdler

- Small wood-boring beetle lay eggs in the stems--girdling the stem
- Either kills or weakens the stem.

### What to do:

- Prune off the stem below the damage and burn, if possible.
- You can do this when the stems have new growth or in winter or early spring before adults emerge.




# Problems, Pests, and Diseases



## Raspberry: Yellow rust

- Space plantings, prune, and train to provide good air circulation and reduce humidity.
- Clean up any fallen leaves and plant debris
- Prune out old fruiting canes and all dead or damaged canes after harvest. Make cuts flush with the ground, without leaving stubs.
- Fungicides: Containing copper, sulfur apply when 1. first buds produce about 0.75 inch of new growth, 2. new growth is 3 to 4 inches, 3. when the first flowers are just about to open. **READ THE LABEL!**



 Raspberry rust <https://hortsense.cahnrs.wsu.edu>  
Photo by: R.S. Byther

# Problems, Pests, and Diseases



## Raspberry: Powdery mildew

- Water-soaked appearance top of leaf, white powdery
- can affect leaves, shoot tips, new canes, and fruit
- fungus on other side
- Twisting stunted leaves
- Occurs in warm, overcast, humid weather
- Overwinters in infected buds

### What to do:

- Allow good ventilation
- Prune out and destroy diseased suckers in spring
- Apply Spray first when first blossoms open, then regularly until all fruit is set.
- --Horticultural oil (E.g., ferti-lome, Monterey), Bicarb Old-Fashioned (O)



Photo by: R.S. Byther [hortsense.cahnrs.wsu.edu](http://hortsense.cahnrs.wsu.edu)

# Problems, Pests, and Diseases

## Raspberry: Fruit rot and cane Botrytis

- Occurs in moist, cool weather, and can lead to significant fruit loss.
- Fungal disease causes a soft, watery rot and gray-brown fuzzy coating
- The fungus can spread to canes, causing brown or watermarked lesions
- The fungus overwinters in diseased plant debris and spreads via wind and splashing water.

### What to do

- Provide enough room for good airflow
- Don't water overhead
- Don't over-fertilize
- clean up fallen leaves, mulch
- choose resistant varieties
- pick when ripe



Botrytis overwintering bodies  
Photo by: R.S. Byther



📷 Botrytis on fruit

Photo by: R.S. Byther [hortsense.cahnrs.wsu.edu](https://hortsense.cahnrs.wsu.edu)



# Resources

[Growing Blackberries in Your Home Garden](#), EC 1303 for more information on blackberries (loganberries, boysenberries).

[Growing Berries on the Oregon Coast: Raspberries and Blackberries](#), EM 9180

[Growing Berries on the Oregon Coast: An Overview](#), EM 9177

WSU [Growing Small Fruits in the Home Garden \(Home Garden Series\)](#)

[OSU Growing Raspberries in Your Home Garden](#) EC 1303

Soil testing <http://simplysoiltesting.com>

Berry diagnostic tool--why are my raspberry leaves turning brown around the edges?

<https://blogs.cornell.edu/berrytool/raspberries/raspberries-leaves-are-turning-brown-along-the-edges/>

Fertilizing and watering container plants

<https://extension.umn.edu/managing-soil-and-nutrients/fertilizing-and-watering-container-plants>

**Where to buy raspberry plants in SW Washington** (all are available for online orders, too)

Burnt Ridge Nursery

<https://www.burntridgenursery.com/Raspberry/products/>

Raintree Nursery

<https://raintreenursery.com/collections/raspberries>

One Green World Nursery

<https://onegreenworld.com/product-category/berries/raspberries/>

Pheromone beneficial insect attractant-Predalure

<https://www.arbico-organics.com/product/predalure-attract-ladybugs-green-lacewing-beneficial-insects/attract-beneficial-insects>

# Questions?



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For information about becoming a **WSU Extension Master Gardener in Cowlitz Co.**, contact Gary Fredricks, [garyf@wsu.edu](mailto:garyf@wsu.edu), 360-577-3014 ext. 3



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<http://mastergardener.wsu.edu/>