KENTUCKY STATE UNIVERSITY
College of Agriculture, Community, and the Sciences

# Gooseberries and Currants: Small Fruits to Think About

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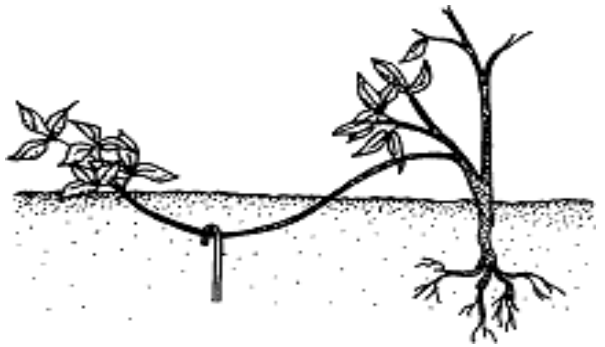
# Gooseberries and Currants

- Currants and gooseberries (*Ribes*) are berry producing shrubs
- Types of currants: red, white, pink, and black
- Gooseberries range from green to yellow, or red when ripe
- Gooseberry plants have thorns, currants do not
- Tart berries mostly used in processing; some sweet enough for fresh eating
- Most US production is in the northeast and Pacific Northwest, most worldwide production is in Europe

# Production of Gooseberries and Currants

- Select disease resistant cultivars
- Plant in fall or early spring
- Most gooseberries and currants are partially self-fertile but get higher yields with cross pollination
- 3-6  foot height and spread
- Currants: 3-4’ spacing
  Gooseberries: 4-5’ spacing
- Can propagate via cuttings or tip layering (if not patented)



# Production of Gooseberries and Currants

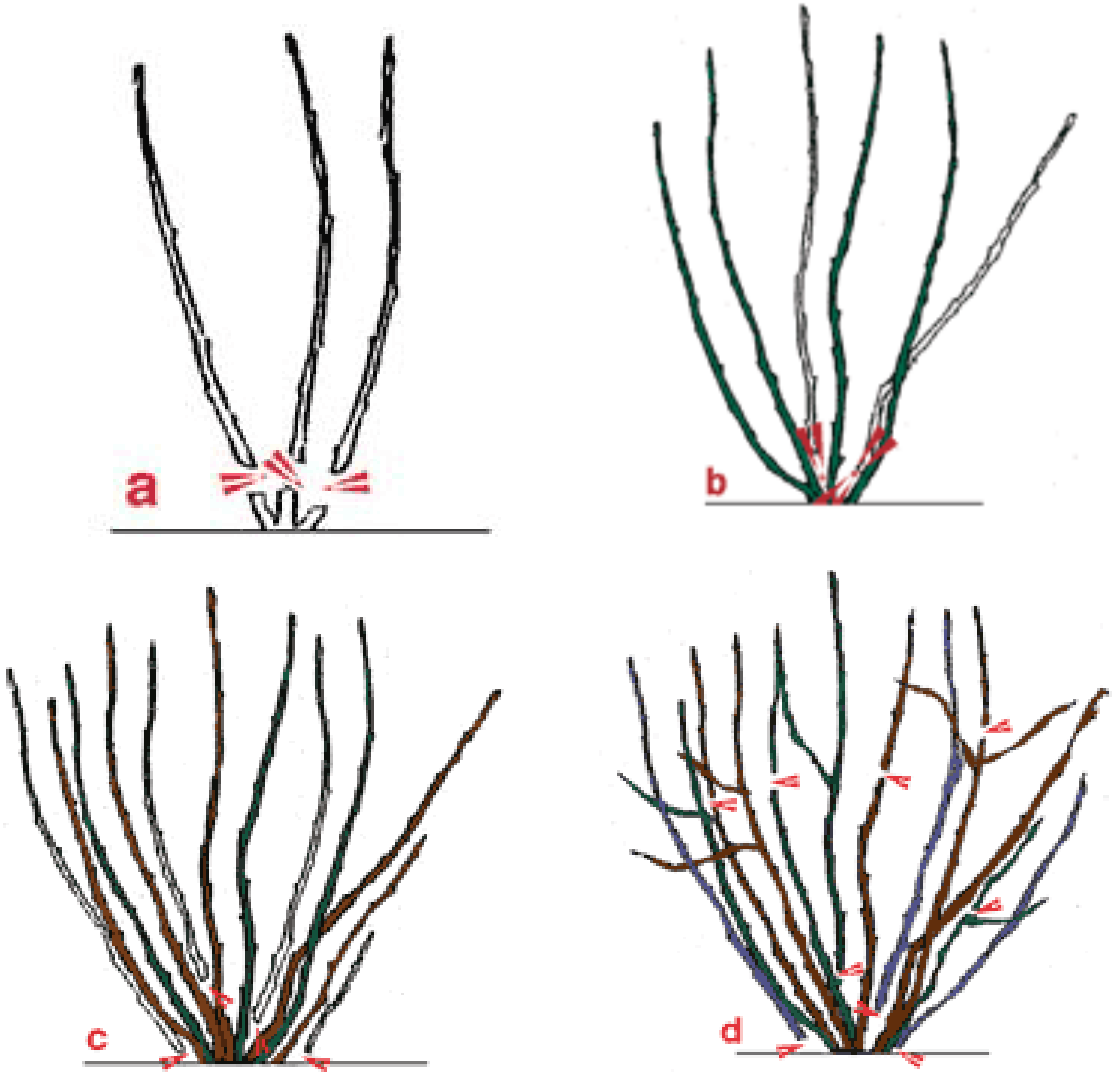
- Cold hardy (USDA growing zones 3-8) but can bloom early
- North or northeast facing slopes ideal- cooler temps and prevent early flowering
- Part shade may be beneficial (morning sun-afternoon shade ideal)
- Avoid low lying areas (frost pockets)
- Choose a site with good air circulation to reduce chances of powdery mildew

# Production of Gooseberries and Currants

- Cool moist soil, well-drained soil, high in organic matter, pH 6-7
- Woodchip or other mulch: cools roots, soil moisture and weed control
- Irrigation needed in summer in Kentucky
- Fertilization: 10-10-10 or any balanced fertilizer; Manure also a good fertilizer
- Do not over-fertilize: increases powdery mildew

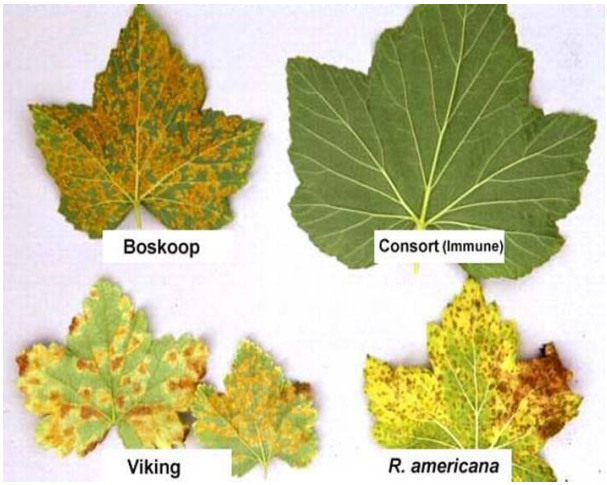
# Pruning

- Gooseberries and currants are multi-stemmed shrubs
- Most fruit produced on 2 and 3-year-old  shoots.
- Prune late winter-early spring to remove four-year-old canes, weak spindly canes, branches on ground, and overcrowded areas.
- Mature gooseberry and red/white currants should have ~8-10 bearing canes; black currants ~10-15 canes



# White Pine Blister Rust (WPBR)

- Early in the 1900's, white pine blister rust became a serious disease problem in the United States
- White pine blister rust requires both a Ribes (black currant) species and white pine to complete its life cycle
- In an attempt to prevent the spread of white pine blister rust, the federal government banned the planting and cultivation of currants early in the twentieth century
- The ban was lifted in 1966 when research showed black currants could be grown some distance from white pines, and currants that are resistant to WPBR were developed
- Plant at least 1500 ft from the nearest susceptible pines
- The black currant cultivars: Consort, Coronet, Crusader, Ben Sarek, and Titania are WPBR-immune or resistant




WPBR on currants

**WPBR on currant**

**WPBR on Pine**

# Powdery mildew, septoria leaf spot, and anthracnose

- Good air circulation via site selection, plant spacing, and pruning, avoid overhead irrigation (leaf wetness)
- Good sanitation- removed diseased and fallen leaves
- Choose resistant cultivars
- Powdery mildew: Sulfur fungicide; septoria leaf spot and anthracnose: copper based fungicides
- Powdery mildew more common on currants than gooseberries; septoria leaf spot more common on gooseberries

# Insects and other pests

- Gooseberry and currant fruitworm – harvest promptly, don’t leave overripe fruit or fruit on ground. Bt for control
- Gooseberry sawfly- larvae feed on leaves. Nematode for biological control
- Harvest is generally early enough to avoid Spotted Wing Drosophila (SWD)
- Birds
  - Robins love black currants and pink gooseberries
  - Netting, bird alarms, bird scares and pie tins tied to poles

# Black Currants recommended for Kentucky:

- **Titania**
  - immune to White Pine Blister Rust and has resistance to powdery mildew.
  - Fruit size is large, yields high, and fruit quality is good.

- **Ben Sarek**
  - Resistant to white pine blister rust.
  - Compact bush size (3-4 ft tall)
  - high yields, very large fruit and ease of hand harvest.

# Other Black Currants

- **Ben Lomond**
  - The standard for commercial juice production.
  - Some resistance to mildew.
  - Susceptible to White Pine Blister Rust.
  - Recommended for Kentucky if no white pines are nearby
- **Consort**
  - Fruit quality is fair to poor, berry size small to medium, yields low.
  - Immune to white pine blister rust but is very susceptible to powdery  mildew
- **Crusader**
  - Similar to Consort, needs pollinizer

- **'Crandell': clove currant**
  - North American native species, *Ribes aureum* var. *villosum*, also known as the clove currant.
  - Bright fragrant yellow spring flowers.
  - Fruit is mild, sweet, pleasant, and very different from European black currants.
  - Performs well in hot summers, resistant to white pine blister rust, and no damage from powdery mildew.

# Black Currants at KSU

| | Approximate harvest date | Years in the field | Yield | Berry weight (g) | Vigor | WPBR resistance | Powdery mildew resistance | Septoria Leaf Spot resistance |
|---|---|---|---|---|---|---|---|---|
| **Black Currants** | | | | | | | | |
| Crandall (clove currant) | Early-July | 5 | 8 | 1.3 | VG | R | VG | G |
| Ben Sarek | Late-June | 5 | 8 | 1.4 | VG | R | VG | G |
| Ben Lomond | Late-June | 5 | 8 | 1.4 | VG | S | VG | G |
| Consort | Mid-June | 5 | 7 | 0.8 | EX | R | P | G |
| Crusader | Mid-June | 5 | 7 | 0.8 | EX | R | P | G |

(Titania not included in this trial but is the best bet for planting)

**Minaj Smyriou:** new cultivar, not in trial, resistant to WPBR and powdery mildew; reported to be more heat tolerant: also worth trying

# White Currants

- **Primus-** WPBR resistant; yields not high
- **White Imperial** – some resistance to WPBR; older variety introduced in 1895
- **Blanka** – not in KSU trial. High yielding, vigorous
- **Pink Champagne** – unique pink berry, lower yields, good flavor, some powdery mildew in KY

# Red Currants

- **Jonkeer Van Tets**** – high yields, good flavor, mildew resistant
- **Red Start**-** high yields, disease resistant
- **Rovada*** – late blooming, large fruit, disease resistant
- **Red Lake-** vigorous, productive, hardy, large good quality fruit, but susceptible to powdery mildew
- **Viking** – moderate resistance to powdery mildew

** recommended based on KSU trials

* recommended based on data elsewhere

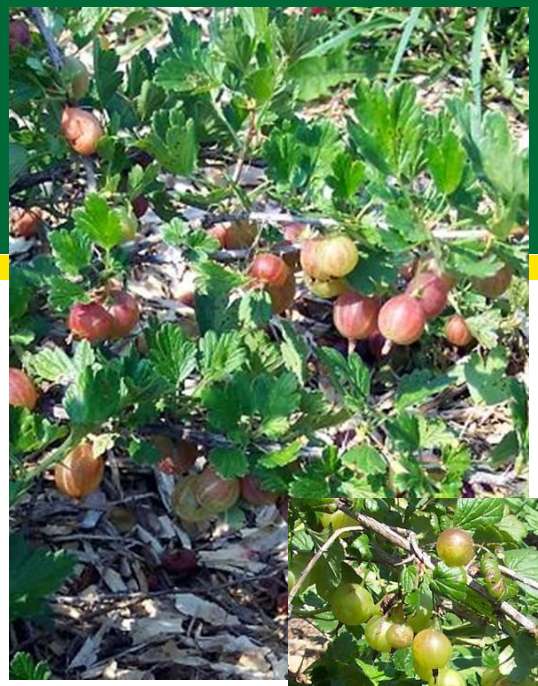
# Red and White Currants at KSU

| Cultivar | Approximate harvest date | Years in the field | Yield | Berry weight (g) | Vigor | WPBR resistance | Resistance to powdery mildew | Septoria Leaf Spot resistance |
|---|---|---|---|---|---|---|---|---|
| **White Currants** | | | | | | | | |
| Primus | Mid-June | 5 | 3 | 0.6 | VG | R | F | G |
| White Imperial | Mid-June | 5 | 4 | 0.6 | VG | R | F | G |
| **Red Currants** | | | | | | | | |
| Jonkeer Van Tets | Mid-June | 5 | 3 | 0.8 | G | R | F | G |
| Red Lake | Mid-June | 5 | 3 | 0.6 | G | S | P | G |
| Redstart | Mid-June | 5 | 3 | 0.5 | G | R | F | G |

Blanka also performs well in Kentucky but was not included in this trial

# Recommended Gooseberries

- **Hinnomaki Red**
  - Excellent tart raspberry flavor, Red berry when ripe, Crunchy texture, Good disease resistance
- **Amish Red**
  - Good flavor, Red berry when ripe, Good disease resistance
- **Poorman**
- Good flavor, Red berry when ripe, Less disease resistance (Leaf spot)



# Other Gooseberries Planted at KSU

- ‘Pixwell’- berries hang low for easy picking, but poor flavor and texture
- ‘Invicta’ –green berry-poor survival
- ‘Jahns Prairie’-red berry-leaf spot problems
- ‘Captivator’-red berry-leaf spot problems, semi-thornless

# Other Gooseberries to Try:

- **Tixia** has large bright red elongated fruit; one year shoots have few thorns and the thorns are relatively soft
- **Glenndale**: more tolerant of southern heat and humidity
- **Jeanne**: most resistant to powdery mildew, bred by Oregon State University in 2006
- **Black Velvet**: late ripening, sweet blueberry or grape like fruit
- **Friend**: thornless, **Red George**: almost black berry, **Jewel**: peach berry

# Gooseberries at KSU

| Cultivar | Approximate harvest date | Years in the field | Yield | Berry weight (g) | Vigor | WPBR resistance | Resistance to powdery mildew | Septoria leaf spot resistance |
|---|---|---|---|---|---|---|---|---|
| **Amish Red** | Mid-June | 5 | 7 | 2.4 | VG | R | G | G |
| Captivator | Mid-June | 4 | 2 | 3.5 | VG | R | G | P |
| Invicta | Mid-June | 5 | 1 | 3.5 | P | R | G | P |
| Jahns Prairie | Mid-June | 4 | 2 | 3.8 | VG | R | G | P |
| **Hinnomaki Red** | Mid-June | 5 | 8 | 2.9 | VG | R | VG | G |
| Pixwell | Mid-June | 5 | 7 | 1.3 | EX | R | VG | P |
| Poorman | Mid-June | 5 | 4 | 3.1 | VG | R | G | F |

# Nurseries selling gooseberries and currants

- Indiana Berry and Plant Company
- Brambleberry Farm (Indiana)
- Stark Bros. Nursery (Missouri)
- One Green World (Oregon)
- Raintree Nursery (Washington)

# Gooseberry and Currant Harvest


- Gooseberries
  - 4 years to full production
  - about 4-5 quarts per bush
  - 8-10 lbs per plant
- Currants
  - 4 years to full production
  - about 3-4 quarts per bush
  - 5-8 lbs per plant
- Light crop in year 2, full crop by year 3-4

# Gooseberry and Currant Harvest

- Ripen over ~a month long period in June-July
- Color change indicates ripeness
- Gooseberries picked individually, currants in bunches
- Hand harvest
- Can harvest weekly
- Average retail price of $3.50/pound, or $5-6 per quart

# Nutritional Information on Currants

**Table 3. Nutritional composition of raw currant, gooseberry, apple, strawberry and orange fruit (per 100-g edible portion).[z]**

| Fruit | Water (%) | Calories[y] | Protein (g) | Fat (g) | Carbohydrate (g) | Vitamins | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | A (I.U.)[x] | $B_1$ (mg) | $B_2$ (mg) | Niacin (mg) | C (mg) |
| Black currant | 81.96 | 63 | 1.4 | 0.41 | 15.38 | 230 | 0.05 | 0.05 | 0.3 | 181 |
| Red currant | 83.95 | 56 | 1.4 | 0.2 | 13.8 | 120 | 0.04 | 0.05 | 0.1 | 41 |
| Gooseberry | 87.87 | 44 | 0.88 | 0.58 | 10.18 | 290 | 0.04 | 0.03 | 0.3 | 27.7 |
| Apple | 83.93 | 59 | 0.19 | 0.36 | 15.25 | 90 | 0.017 | 0.014 | 0.077 | 5.7 |
| Strawberry | 91.57 | 30 | 0.61 | 0.37 | 7.02 | 27 | 0.02 | 0.066 | 0.230 | 56.7 |
| Orange | 82.3 | 40 | 1.3 | 0.3 | 15.5 | 250 | 0.10 | 0.05 | 0.5 | 71 |

[z]Source: U.S. Department of Agriculture, National Agriculture Library (2002).
[y]Food calorie – 1000 g calories of heat.
[x]I.U. – international units; 28.35 g – 28,350 mg – 1.0 oz.

Black currants are high in Vitamin C, anthocyanins, and antioxidant capacity

Hummer and Barney (2002) in HortTechnology 12:377-387

# Gooseberry and Currant Products




- Refrigerate immediately after harvest or freeze whole for longer term storage
- Currants: more tart and astringent so generally used for processing- jelly, juice, and liqueur
- Gooseberries: jam, baked goods, wine, fresh eating (sweet-tart)
- Skittles in Europe are black currant flavored rather than grape

# Summary

- Gooseberries and currants have potential as a backyard fruit, or small scale commercial fruit for farmers markets and specialty markets in Kentucky
- More research on production and marketing is needed, especially with newer cultivars and different growing methods (shade)
- Kentucky recommendations:
  - Black Currant: Titania, Ben Sarek, Ben Lomond (if no white pines nearby)
  - Red Currant: RedStart, Jonkeer Van Tets, Rovada
  - White Currant: Primus, White Imperial, Blanka
  - Gooseberries: Hinnomaki Red, Amish Red, Poorman