Growing Small Fruit
Strawberry, Raspberry, Grape

University of Wyoming Extension
Strawberries

Crown

Leaf

Runner (stolon)

Runner (daughter) plants

Roots
Types of Strawberries

June-bearers

Produce one crop per year in June-July. Some varieties that do well in our area are:

Guardian, Kent, Honeoye, Redchief, Delite, Jewel, Mesabi, A.C. Wendy, Cabot and Bloomiden
Types of Strawberries

Ever-Bearers

Produce two crops a year (one in June and the second in the fall). Good for home gardens because they are reliable producers

Ogallala, Fort Laramie and Ozark Beauty
Types of Strawberries

Day-Neutral

• Day-neutrals are similar to ever-bearers, but they produce a crop almost continuously throughout the growing season.

• The disadvantage is that the fruit is smaller and the total yield is lower.
Types of Strawberries

Day-Neutrals

Fern, Tribute, Tristar
Growing Strawberries

• Soil conditions should be well drained and fertile.
• Raised beds work well
Planting Strawberries

- Plant as soon as the soil can be worked. The ideal time is early spring.
- Dig a hole large enough to place roots straight down and slightly spread.
- The midpoint of the crown should be level with the soil surface.
- The top of the root should be just below the surface, and slightly fanned out.
The most common training methods for strawberries are *matted rows* or *hill* systems.

The idea is to plant in rows with enough space between to allow runners to fill in and create a dense stand.
Matted Row System

- Best system for June-bearers
- Set plants 18-24 inches apart in rows
- Space 3-4 feet between rows
- Allow runners to root and form a solid mat.
- Keep 2 feet between rows clear by cutting off runners.
Matted Row System
Hill System

• Preferred for ever-bearers and day-neutrals that produce fewer runners.
• Set plants 12-15 inches apart in double or triple wide rows.
• Aisles should be 2 feet wide.
• Remove all runners that develop throughout the growing season.
First Season Care

June-bearers

• Remove all flowers during the first year.

Ever-bearers and Day Neutrals

• Remove first flowers.

• Allow flower clusters that form after July 1st to set fruit.
First Season Care

In **hill system** systems, periodically cut off all the runners during the growing season.

In **matted-row** systems position runners to equal about five runner plants per square foot.

- Place a clod of soil on top of each runner to anchor it into place.
- Once you’ve achieved your desired density, remove all other runners.
Weed Control

- Strawberries are shallow rooted.
- Hoe around the plants to kill weeds and loosen the soil.
- Bark mulch or weed fabric can be used to suppress weeds, conserve moisture, and keep the fruit clean.
Watering

- Never allow strawberry plants to be stressed by a lack of water.
- New plants require well irrigated soil throughout their first year.
- Established plants need 1 inch of water a week
Spider Mites and Aphids

- Controlled with insecticidal soaps
- Repeat applications every 2-3 weeks
- Insecticidal soaps only control adults
Birds

- Bird netting
Root Rot

- Often develops in low wet areas
- Plants show poor vigor and often die
- Establish healthy plants in well drained soil
- Plant on ridges or raised beds
- Maintain ridges 12 inches above surrounding soil
- Hood, Olympus, Rainier, Shuksan, and Totem are resistant
Questions on Strawberries?
Raspberries and Blackberries
Primocanes and Floricanses
Raspberries

- The crowns and roots of raspberry plants are perennial, but individual canes live two years.
- Each spring, the plants produce canes (suckers) from buds on the crown and on underground lateral stems.
- These canes grow vegetatively during the first season, overwinter, and produce fruit during the summer of the second year, while new canes emerge to provide a crop for the following year.
Blackberries and Raspberries

• Second-year canes die shortly after fruiting. Everbearing raspberries bear a crop on the tips of first-year canes in the fall, followed by a typical summer crop on the lower portion of the canes the second year.

• It's easy to tell first-year canes from second-year canes. First-year canes have green stems, while second-year canes have a thin, brown bark covering them.
Cold Hardiness

• In general, red raspberries are the hardiest type, followed by yellow raspberries, purple raspberries, black raspberries, and blackberries.

• Temperatures below 5°F will injure or kill blackberry and most purple and black raspberry canes.
CONSIDER VERY CAREFULLY

- Patches are long lived
- Sun
- Acid soil pH
- Good drainage
- Air circulation
- Wind protection
- Room to spread out
Production

• 3 years to reach maturity
• Productive 8 to 12 years ++++
• Consider replanting after 10 years or when yields drop
Site Prep

Soil pH 5.5 to 7
- Add soil amendments-peat moss or ammonium sulfate

High in organic material
- Retains moisture
- Promotes good drainage

Drainage problems
- Raised beds-at least one foot high
FIRST THING IN SPRING (i.e. April)

• Proper plant spacing
  • 4-5 feet between plants, 8-10 feet between rows
  • Reduce disease & pest problems
  • Easier weed control
  • Overcrowding produces smaller berries & yields
Watering

Need from bloom through harvest
  • Good berry size & yield

Over-watering raspberries
  • highly susceptible to root rot

Overhead sprinklers
  • Encourages fruit & cane disease
  • Early in morning so canes can dry out quickly

Recommended-water soil at base of plants
Watering

FIRST FROST

• Reduce watering
• Encourages canes to harden off

LATE FALL

• Water after plants are dormant
• Prevent winter injury caused by canes drying out
Mulching

Mulch base of plants

- Bark, straw or pine needles for winter protection
- Canes can be injured or killed—new canes will grow from crown
Raspberry Varieties

Red & Yellow

- Most adaptable to our area
- Numerous suckers
- Summer bearers and fall bearers
  - Summer bearers-one crop per year
  - Fall bearers-two crops per year
Training and Pruning

THREE METHODS FOR RASPBERRIES

- Trellis
- Staked hill
  - One post with 5 or 6 canes tied to it
- Free standing
  - 5 to 7 canes left free standing
    - Canes trimmed back to 4 ½ feet

ERECT
- Free standing

TRAILING AND SEMI-ERECT VARIETIES
- Require support using a trellis
Training and Pruning

Semi-Erect and Trailing Varieties
Pruning Fall-Bearing Raspberries

Fall-bearing raspberries bear fruit on the ends of new canes in late summer and fall, as well as on the lower portions of these canes the following year. Prune the canes off at ground level each year after the second harvest.
Pruning Erect Varieties

- **Erect** Raspberries do not require trellis
- In summer, prune primocanes to 36 inches to promote lateral branching
- In winter, prune flowering canes to 12-18 inches
- Select 3-5 primocanes per plant
Questions on Raspberries or Blackberries?
Grapes
Grape Varieties

European (Vinifera)
least cold hardy and susceptible to grape phylloxera (an aphid-like insect that feeds on grape roots. Feeding pressure plus injected toxin can kill the vine)

American (Labrusca)
most cold hardy

Hybrids
intermediate hardiness
Site Selection

- Sunny location
- Avoid frosty sites
- Sheltered and south-facing are best
Site Prep

• Add organic material to clay soil
• Do not fertilize
• Plant in spring when soil can be worked
• Mulch with gravel or rocks to warm soil
Watering

• Water regularly the first year to establish healthy root system
• Once established water deep but not often
  – Grapes are deep rooted – 8 feet
• Stop watering in late August
• Avoid overhead watering
Trellis and Arbor

- Support is mandatory for good grape production
- Trellis should be 5 feet high
Pruning and Training – 1st Year

- After planting, cut the plant back to 2 buds
- Train the strongest shoot up a temporary string or wire to the trellis
  - This will be the main trunk
- Remove all lateral growth off the main shoot
1st Year
2nd Year

• If the shoot has reached the wire trellis, top the plant at the wire
• Select 2 laterals closest to the wire
• Train laterals along the wire in both directions
• These laterals are called cordons
• Remove all other laterals and root suckers
2nd Year – 15-20 buds
3rd Year
4th Year and Beyond
Pruning Timing

- Dormant pruning February and March
- Remove 90% of wood
- Annual production comes from two new canes
Questions on Grapes?