

Growing Berries in Kansas

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Types of Fruit

❖ Strawberries

❖ Blueberries?

❖ Raspberries

❖ Blackberries

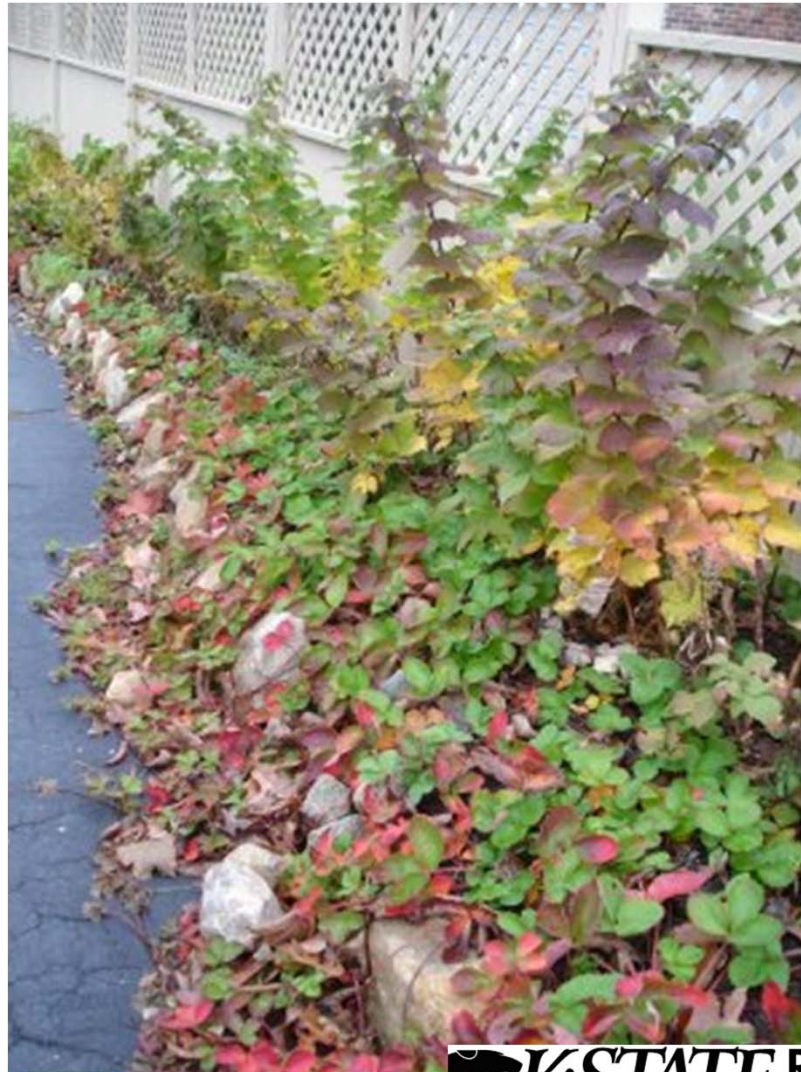
Small Fruit in the Landscape

❖ Hedges



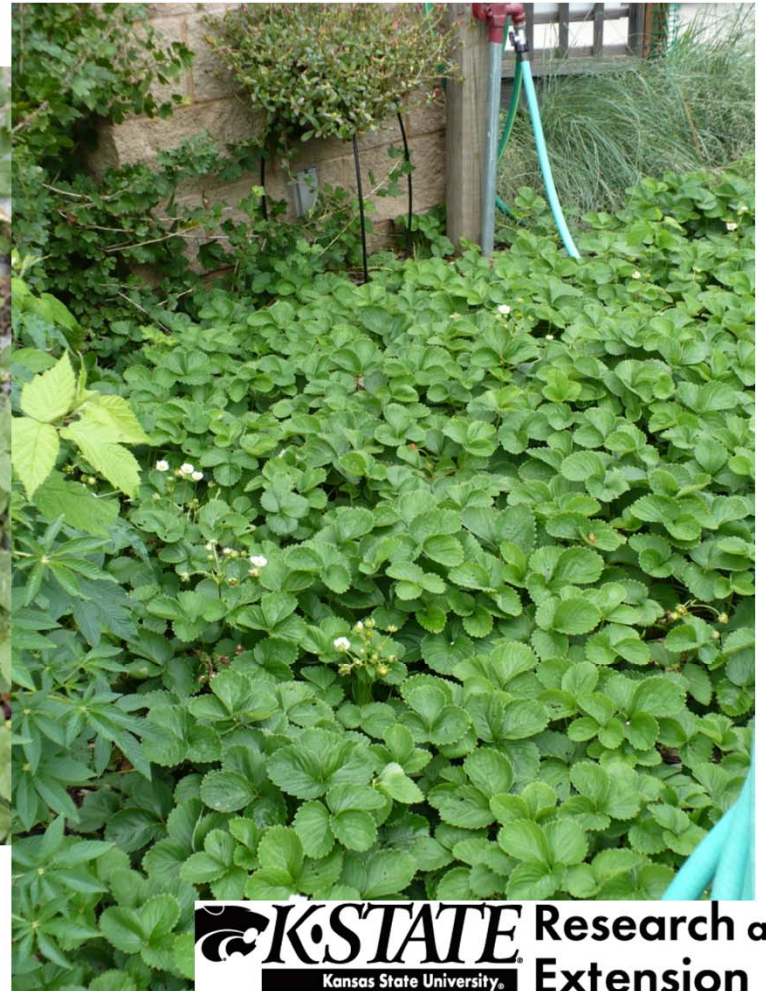
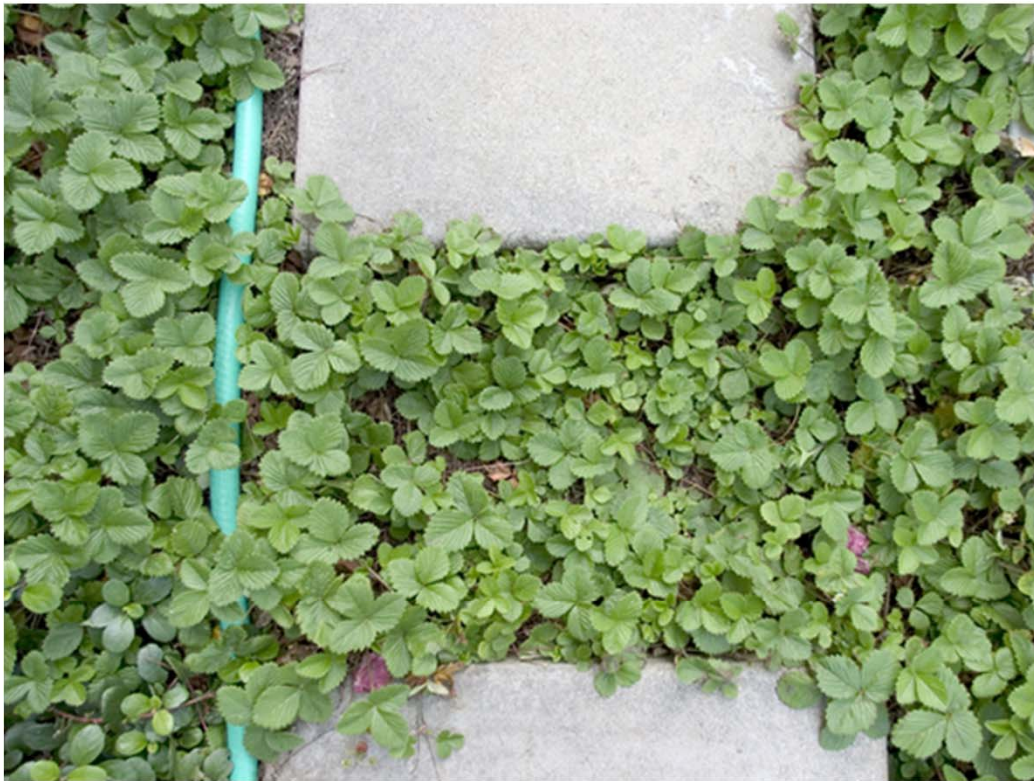
Small Fruit in the Landscape

❖ Borders



Small Fruit in the Landscape

❖ Strawberry ground cover



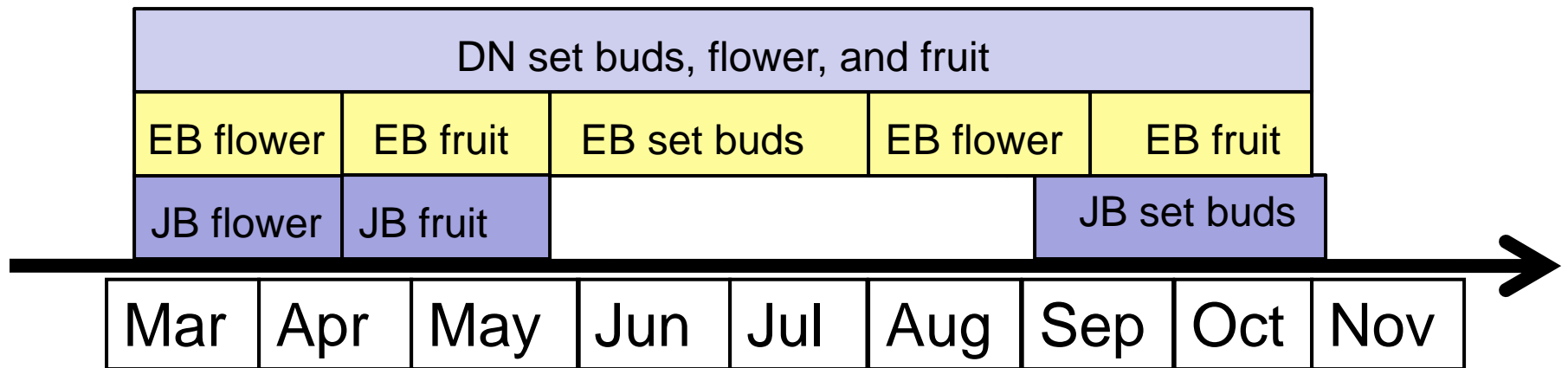
Strawberries



Strawberry Basics

- ❖ Self-pollinating – only one variety needed
- ❖ Three Types
 - ❖ June-bearing
 - ❖ Everbearing
 - ❖ Day Neutral

Strawberry Timeline



JB = June Bearing

EB = Ever-Bearing

DN = Day Neutral

June-bearing Strawberries

- ❖ Set fruit buds in the fall when days are short
- ❖ Fruit in the spring to early summer.
- ❖ Usually planted in matted rows
- ❖ Perennial plantings

Everbearing Strawberries

- ❖ Fruit in the fall and spring
- ❖ Buds are set during long days
- ❖ Fruit until frost
- ❖ Remaining buds fruit in spring

Day Neutral Strawberries

- ❖ Fruit all year until frost
- ❖ Buds set all year, regardless of day-length
- ❖ Buds may abort at temperatures above 90F
- ❖ Often grown as annuals on raised beds

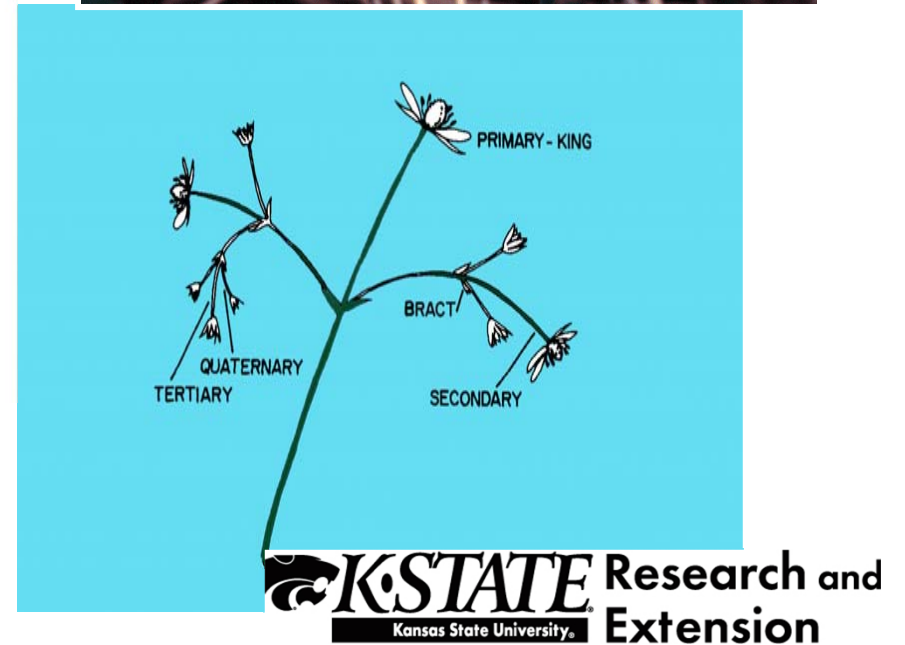
Site Selection

- ❖ Well-drained soil
- ❖ Prefer loamy or sandy soils
 - ❖ Raised beds on heavy soils
 - ❖ Frequent watering on sandy soils
- ❖ At least 2% organic matter
- ❖ pH of 5.8 to 6.5

Site Selection

- ❖ Full sun
- ❖ Avoid low areas where cold air settles
- ❖ Avoid weedy or grassy areas
 - ❖ Till area one year before planting
 - ❖ Plan ahead!

Growth Habit

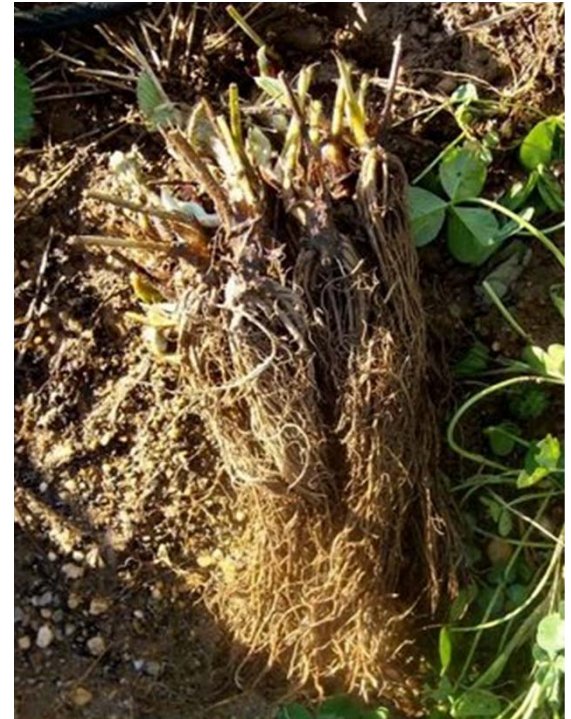


Planting

- ❖ **Mid-March to early April**
- ❖ **Planting can begin as early as the soil can be worked during this period.**
- ❖ **Typically 1 foot of row will produce at least a quart of berries.**

Planting

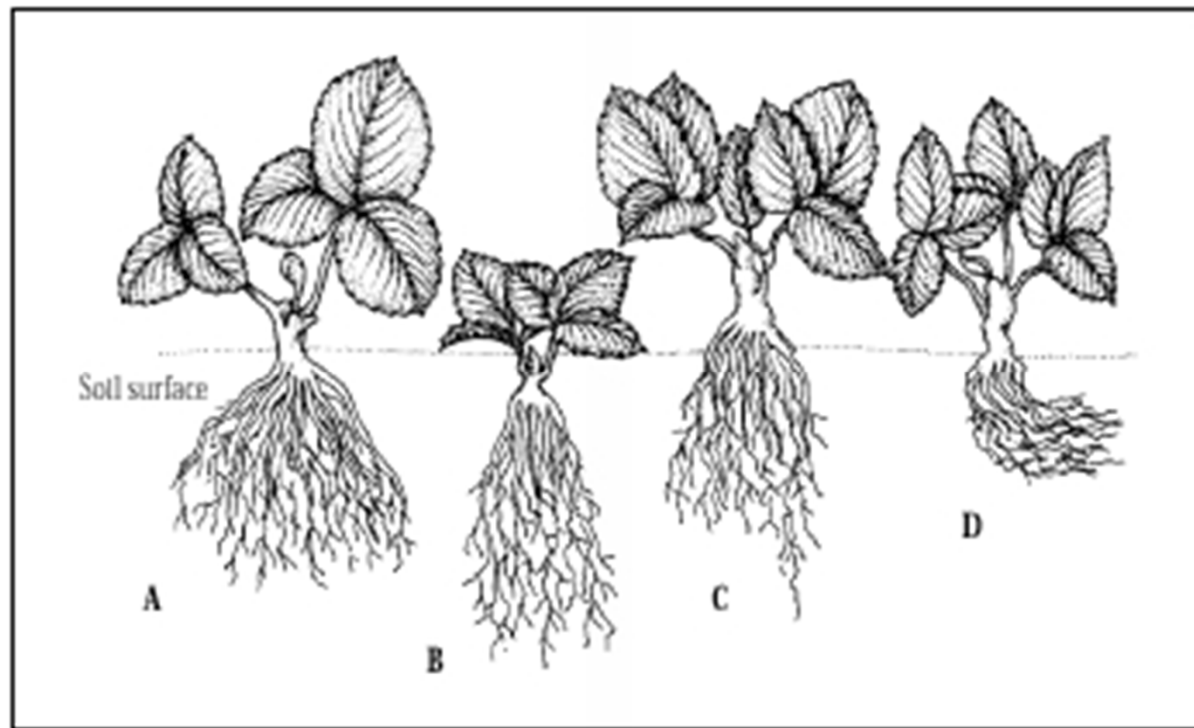
- ❖ Virus-free planting stock
- ❖ Dormant strawberry plants
 - ❖ Kept in cold storage (40°F)
- ❖ Keep roots moist



Planting

- ❖ Set the plants so leaves and stems are above the soil surface
- ❖ Crowns should be even with the soil surface
- ❖ Prune off lower 1/3 of root system when planting.

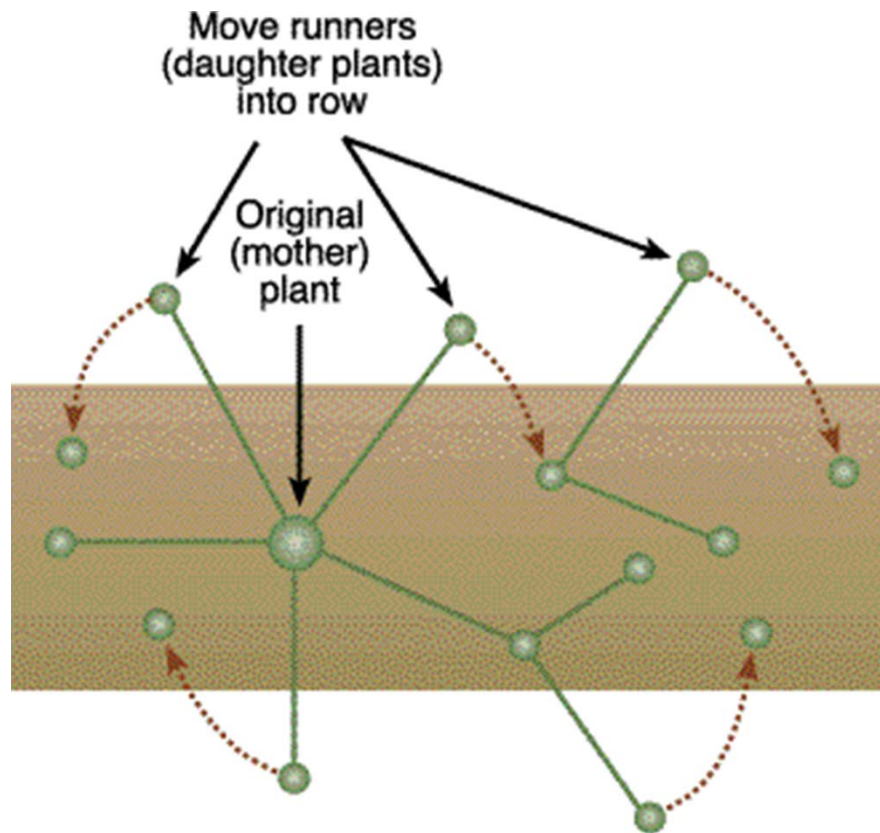
Correct Planting Depth



Matted Row System

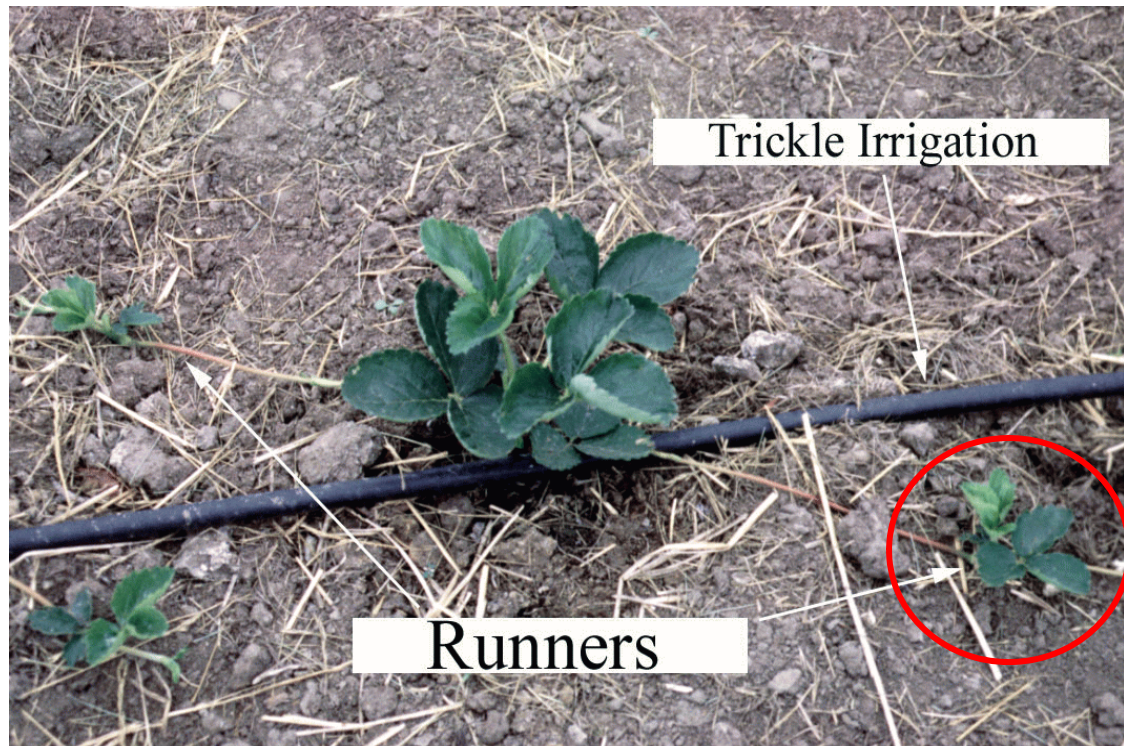
- ❖ Most common
- ❖ Plants are set 18-24 inches apart within a row and 48 inches between rows.
- ❖ Runners root and produce “daughter plants” forming a “matted row”

Matted Row System



First Year Care

- ❖ Remove all flowers to allow runners to develop



First Year Care

❖ Runner spacing

- ❖ Space plants 4 to 6 inches apart

- ❖ Extra runners should be removed, if possible.

- ❖ Keep bed width to 12 to 18 inches.

- ❖ Mulch beds for winter after the ground is frozen

Second Year and Beyond

❖ Protect Flowers

- ❖ If frost predicted, cover bed with blankets or use overhead irrigation until ice melts.



Second Year and Beyond

- ❖ **Weed Control**
 - ❖ **Organic options**
 - ❖ **Hand weeding**
 - ❖ **Hoeing**

Second Year and Beyond

- ❖ Renovate after fruiting.
 - ❖ Cut off leaves
 - ❖ Reduce width of row to 10"
 - ❖ Fertilize
 - ❖ Water

Renovation

First Step: Mow off leaves



Renovation

First Step: Mow off leaves



Renovation

Second Step: Gather and Discard Leaves



Renovation

Third Step: Fertilize with 1 pound 10-10-10 per 25 feet of row



Renovation

Fourth Step: Narrow row to 10 inches



After Renovation

**Keep planting watered.
Plants should have recovered in about 2 weeks.**



**Immediately
After Renovation**



**2 Weeks
Later**

Winter Care for Strawberries

- ❖ Mulch every winter (1st year and beyond)
- ❖ Mulch prevents heaving & cold injury
- ❖ Apply after growth ends, before freezes
- ❖ Between Thanksgiving and Christmas

Winter Care for Strawberries

- ❖ Remove mulch after growth begins
- ❖ Leave some mulch
 - ❖ Keeps soil moist
 - ❖ Delays soil warming?
 - ❖ Keeps fruit clean

Fruiting Strawberry Care

- ❖ Adequate water results in better fruit quality
- ❖ Watering sandy soils vs clay soils

Tarnished Plant Bug



Harvest Time

- ❖ Fruit should be fully red
- ❖ Pick fruit early in the day when it is cool.
- ❖ Place strawberries in a cool, shady place while picking.
- ❖ Store at 32°F to 40°F to retain quality.

Low Space Options

- ❖ Best used with Everbearing types

- ❖ Hanging Baskets



- ❖ Towers



- ❖ Barrels

- ❖ Pyramid bed



Blackberries & Raspberries



Brambles

- ❖ **Self-Fruitful: only one variety needed**
- ❖ **Includes raspberries and blackberries**
- ❖ **pH should be 5.8-6.5.**
- ❖ **Organic matter should be between 2% and 4%.**

Planting

- ❖ **Red raspberries**

- ❖ **2 feet apart in the row**
- ❖ **Rows are 6-8 feet apart**

- ❖ **Black and purple raspberries**

- ❖ **3 feet apart in the row.**
- ❖ **Rows are 8-10 feet apart.**

Brambles

- ❖ Raspberries have a hollow core when picked
- ❖ Blackberries have a solid core when picked



Brambles

- ❖ First year canes are called primocanes. These do not fruit.
- ❖ Primocanes become floricanes the second year. Floricanes fruit and then die.



Brambles

- ❖ Perennial plant with biennial canes
- ❖ First year canes are called primocanes
 - ❖ Primocanes do not fruit (usually)
- ❖ Second year canes are called floricanes
 - ❖ Floricane = flowering and fruiting!



Raspberries

- ❖ Red, purple, and black types
 - ❖ Purple raspberries are a cross between red and black
- ❖ Some varieties fruit in summer, some in fall
 - ❖ Primocane fruiting vs. floricane fruiting

Raspberry Varieties

❖ Red Raspberries

- ❖ Heritage (everbearing)
- ❖ Latham
- ❖ Taylor
- ❖ Titan

❖ Purple Raspberries

- ❖ Brandywine
- ❖ Royalty

❖ Yellow Raspberries

- ❖ Fall Gold
- ❖ Goldie
- ❖ Anne (everbearing)

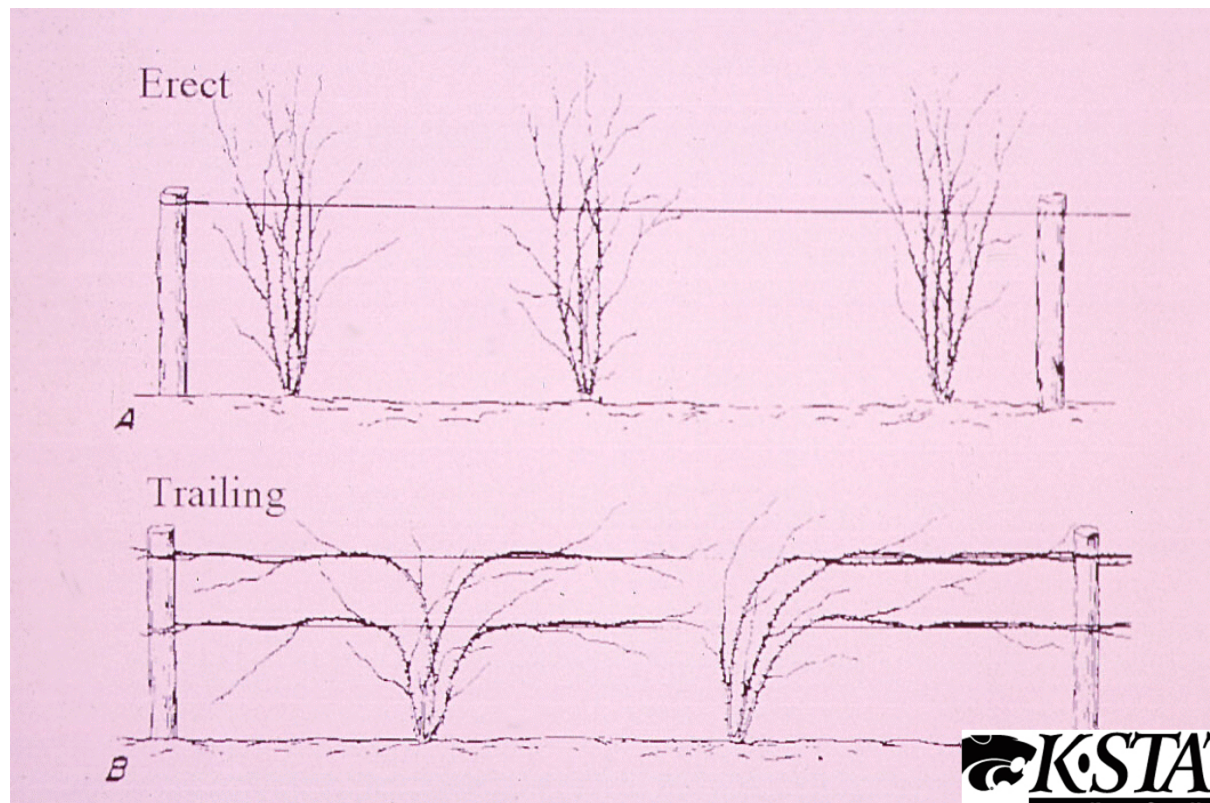
❖ Black Raspberries

- ❖ Black Hawk
- ❖ Bristol
- ❖ Jewel



Blackberries

- ❖ Trailing vs erect types
- ❖ Thorny vs thornless types



Blackberries

❖ Thorny Types



❖ Thornless Types



Blackberry Varieties

❖ Semi-Erect Blackberries

- ❖ Black Satin
- ❖ Chester
- ❖ Hull

❖ Erect Blackberries

- ❖ Shawnee
- ❖ Arapaho
- ❖ Apache
- ❖ Navajo
- ❖ Ouachita

❖ Trailing Blackberries

- ❖ Lucretia
- ❖ Boysen
- ❖ Young



Pruning

- ❖ **Summer Bearing Raspberries**
 - ❖ Maintain rows width at 18-24" by mowing
 - ❖ Thin canes to 4-6" spacing
 - ❖ Head canes back to 5-5 ½ feet



Pruning

- ❖ **Fall Fruiting (Everbearing) Raspberries**
 - ❖ Maintain row width at 18-24" by mowing
 - ❖ Fruits on primocanes in the fall
 - ❖ In late winter prune all the way to the ground











Pruning

- ❖ **Blackberries, black & purple raspberries**
 - ❖ Tip primocanes when they are 30-36" long
 - ❖ Prune back floricanes in early spring
 - ❖ Remove fruiting canes after harvest or during winter



Additional Pruning Tips

	Unpruned	Pruned
Black or purple raspberries		
Red raspberries		
Blackberries		
Trailing blackberries		

Blueberries



Blueberries

- ❖ Hard to grow here due to high soil pH
- ❖ Make a good choice for someone living in an area with soil pH of 5.2 to 6.2
- ❖ Must amend soil to pH of 4.5 to 5.5
- ❖ Can grow in large containers (1/2 of a 50 gallon drum) if pH cannot be lowered. Use a mix of peat moss and soil.

Blueberries

- ❖ Grow best in fertile, well drained soils high in organic matter.
- ❖ Full sun
- ❖ Self-sterile: best yields with 2+ varieties
- ❖ Do not fertilize when planting (can burn roots).

Blueberries

- ❖ Blueberries reach full crop yields in 3-5 years.
- ❖ Rabbits are the main pest of blueberries. The bushes should be screened to avoid damage.
- ❖ Birds can be a problem when fruit is ripe.

Blueberry Varieties

❖ Bluecrop

❖ Blueray

❖ Colville

❖ Jersey

❖ Herbert



Questions?

<http://thedemogarden.org>