Pea Family
Created & Presented by MG Carole Bartolini

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Resources
The information contained in Growing Groceries presentations is based on WSU home gardening publications and other science and research based materials. Resource lists are provided on the King County Growing Groceries website and at the end of some presentations.

To enliven the learning experience, speakers may use examples from their own garden experience and draw from their personal gardening successes and failures.

Objectives
By the end of the class you will know:

Who... is in the pea family?
Why... should I grow peas/relatives?
Which... ones should I grow?
Where... will they grow best?
When... should I sow and harvest?
What... pests and diseases should I look for?
Peas and Beans – Who?
Pea Family: Fabaceae or Leguminosae

- Green peas
- Green beans
- Peanuts
- Soybeans
- Dried beans
- Lentils
- Chickpeas

Peas – Why?

- Cool weather crop
- Quick and easy to grow
- Late summer planting for fall crop
- Many varieties to choose from
- Delicious and nutritious

Peas – Which Ones?

**Shelling peas**
- Used for cooking
- Remove peas from pod
- Freeze, dry or can
Peas – Which Ones?

**Snow peas**
- Flat, edible pods
- Not shelled

**Sugar snap**
- Cross between shelling and snow peas
- Typically not shelled

Peas – Which Ones?

- *Plant types*
  - Bush
  - Vine
- *Varieties*
  - Time to harvest varies from 50 to 80 days
  - Resistance to pea diseases
  - New varieties developed
- *Certified seed!!*

Peas – Where?

- *Well-drained, fertile soil*
  - Soil testing? pH 6–7.5
  - Raised beds? Containers?
- *Full-sun* (6–12 hours daily)
- *Space*

Peas – When?

- *Cool weather crop*
  - Soil temperature 50°F or 4–6 weeks before last spring frost
  - Soil dry enough to pass the “fist” test or not stick to garden tools
- *Directly sow*
  - Soak 12–24 hours before planting
- *If starting indoors*
  - Start 10 days to 2 weeks prior to transplanting in garden but wait until after threat of killing spring frost
Peas – When?

- Bush peas
  Sow 1” deep, 2” apart
  Rows 18–24” apart

- Vining peas
  Sow 6 to 8 seeds around base of circular or teepee trellis
  Sow 1” deep, 1” apart for straight line trellis
  Rows 3 feet apart
- Germination: 5–10 days.

Nitrogen fixation!
Pea inoculant (Rhizobia bacteria mixture)

- Watch carefully during first few weeks! Germination can take:
  21 days in cold soil, 6 days warm soil

- Low soil fertility
- Flower bloom
  Self-pollinating
  Need bees and other insects
Peas – When?

Ongoing care
• Water regularly – 1” per week
• Weed/hoe carefully because shallow rooted
• Mulch after plants established
• Rotate crop every three years
• Do well with deep-rooted and other cool-season plants

Harvest
Frequent picking essential for optimum quality and continued production

After harvest
Remove and destroy debris or turn over healthy material under soil in fall; leave roots in soil

Peas – What Pests and Diseases?

To reduce diseases:
• Plant certified, disease-free seed
• Plant in well-drained soil
• Avoid overhead watering
• Avoid plant overcrowding
• Clean up plant debris; remove diseased or dying plants

Common diseases
• Powdery mildew
• Root rot
• Seed rot/damping off
Peas – What Pests and Diseases?

Pests
• Few and rarely affect!!!
• Prevention
  Crop rotation
  Avoid stress

Common
• Pea leaf weevil
• Slugs
• Cutworms
• Voles & mice
• Birds

Beans – Why?
• Quick and easy to grow
• Many varieties to choose from
• Delicious
• Nutritious

Beans – Which Ones?
• Pole beans
  8 to 10 feet tall!!
  Need trellis or support
• Bush beans
  2 feet and self-supporting
• Varieties
  Green, Romano, French,
  Fava, Edamame, Dry, Wax
Beans – Which Ones?

**Pole beans**
Need trellis or support

- Certified seed from catalogs and garden centers
- Saved seeds may not produce same quality as previous season’s plant
- Choose variety that will mature in our NW climate

**Beans – Where?**

- Fertile, well-drained soil
- Full sun (6–12 hours)
- Consider garden space
  - Bush and self-supporting
  - Pole needing support

**Beans – When?**

**Warm-season crop**

- Late spring when soil temperature reaches 65°F and 1–2 weeks after average last frost date
- Can be started indoors 10 days to 2 weeks before transplanting outdoors
- Transplant seedlings in late spring
Beans – When?

- **Bush**
  Sow 1” deep and 2” apart
  Rows 18–24 " apart

- **Pole**
  Sow 1” deep
  Sow 6–8 seeds around base of pole
  Sow 1” apart if using trellis with rows 3” apart

Beans – When?

- Watch carefully during first few weeks!
- Germination problems?
- Stunted plants?
- Flower bloom!

Beans – When?

- Consider succession planting of bush beans; sow small amounts every 2–3 weeks for continuous harvest
- Pole beans produce throughout the season

Beans – What Pests and Diseases?

To reduce diseases:
- Plant certified, disease-free seed
- Plant in well-drained soil
- Avoid overhead watering
- Avoid plant overcrowding
- Clean up plant debris; remove diseased or dying plants
Beans – What Pests and Diseases?

**Powdery mildew**
Discolored spots; later mats of powdery fungal growth
- Clean up plant debris and destroy
- Plant early
- Do not replant fall beans in same location
- Plant disease resistant varieties

**Root rot**
- Look for stunting, yellowing and dieback; root systems smaller than normal
- Do not overwater
- Plant in well-drained soil
- Improve soil drainage
- Remove/discard diseased plants
- Rotate crops! Every 3 years!

**Slugs**
- Chewing on older plants; younger plants mowed down
- Handpick and kill
- Trap slugs
- Chemical baits but use with caution

**Voles & mice**

**Birds**

**Bean aphids**
- Feed in clusters at shoot tips and new-growth leaves
- Small, pear-shaped, dark green to black
- Provide proper nutrition
- Avoid high levels of nitrogen so switch to slow-release or low-nitrogen fertilizer
- Wash from plants with strong stream of water
Dried Beans – Why and Which Ones?

- Nutritious
- Easy to grow — similar to beans
- Good rotation crop because nitrogen fixing
- Hundred of varieties
- Pole and bush
- Select varieties resistant to diseases common to your area

Dried Beans – Where and When?

- Same as green beans
  - Fertile, well-drained soil
  - 6 hours of direct sunlight daily
- Consider inoculating seeds with Rhizobium to induce nodule formation on plant root
- Plant mid-May to June 1
- Check dates to maturity!!

Dried Beans – When?

Dry Bean Varieties for Niche Markets in the USA

http://vegetables.wsu.edu/NicheMarket/BeanVarieties.html

- 100 Varieties!!
- Days to maturity

Nursery Catalogs

Dried Beans – When?

Harvesting

- When pods dry and easily open
- Place in sunny or dry/shelter area so can dry completely
- Shell when very dry
- Store in tightly closed container in dark/dry place
Dried beans - Pests and Diseases

See: Growing Dry Beans in Home Gardens
Fact Sheet FS135E
And...
http://hortsense.cahnrs.wsu.edu/

Resources
WSU factsheets: FS118E, EM057E
Hortsense: pubs.wsu.edu
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