What We Want!

2010 Douglas County
Insect Pests of Canola

- Cabbage Seedpod Weevil
- Lygus Bugs
- Aphids
- Several Others...
- Flea Beetle
How do you know when to treat the field?

Calendar Approach
How do you know when to treat the field?
Insect Pests for Canola

1) Pest Description / What is it?

2) Lifecycle:

3) Damage:

4) Monitoring:

5) Thresholds/Management Options:
1) **Pest Description:**

- Adult weevils are ash-grey and approximately 3 to 4 mm long. They have a prominent curved snout that is typical of most weevils.
2) Lifecycle:

- Winter: Adults overwinter.
- Spring: Flight at 12°C.
- Summer: Feeding on floral buds, seeds, and young seedpods. Egg-laying in young pods. Larval development in seedpods. Pupation in the soil.
- Fall: Adults emerge in August, feed, and overwinter in leaf litter.
3) **Damage/Symptoms:**

- Canola pods harboring cabbage seedpod weevil larvae often appear distorted.
4) Monitoring:

- **Winter**: Adults overwinter.
- **Spring**: Flight at 12°C. Feeding on floral buds, seeds, and young seed pods. Egg-laying in young pods.
- **Summer**: Larval development in seed pods. Pupation in the soil.
- **Fall**: Adults emerge in August, feed, and overwinter in leaf litter.
Cabbage Seed Pod Weevil

4) Monitoring:
5) **Thresholds/Management:**

- Insecticide application is warranted when an average of 30 to 40 adult weevils are collected per (10) sweeps.
5) **Management Options:**

**Cultural control:**
- Trap Crops

  - Trap border/strip of early flowering Canola variety.

  - Trap border/strip same field variety planted 7 to 10 days early.
5) **Management Options:**

**Chemical:**
- Seed treatments / Foliar sprays
- Same rule applies as with Flea beetles…
- * Minimize non-target effects
1) Pest Description:

- Aphids are small pear-shaped insects that will have cornicles (a pair of tube-like structures attached to the abdomen).
2) **Damage/Symptoms:**
2) Damage/Symptoms:

- As the heads emerge and bloom begins, aphids will concentrate on the heads.
3) **Monitoring/ Thresholds:**

- Canola should be scouted bi-weekly for aphids.

- Treat for aphids when populations exceed:
  - 2 per plant in the seedling stage.
  - 5 per leaf in the rosette stage.
  - or when 20% of the heads are infested during bloom.
4) **Management Options:**

**Biological Control:**
- Several natural enemies help to regulate aphid populations.

**Chemical control:**
- Do not treat late-blooming canola for aphids because populations usually decline after bloom.
1) **Pest Description:**  
- Adults are approximately 3 mm wide and 6 mm long, oval, colored pale green to reddish brown or black.  
- They have a distinctive triangle or V-shape on their backs.
2) **Damage/Symptoms:**

- Adult feeding on developing bud
- Puncture Points from Lygus Bug Feeding on Canola Stem
3) **Monitoring:**

- Start scouting fields at the bud stage.

- Sample (sweep net) when the temperature is above 20°C and the crop canopy is dry.

- Take 10, (side to side) sweeps through the bud area.
4) **Thresholds/Management:**

Treat if:
- 15 Lygus bugs (bud stage - petal drop) (10 sweeps)
- 20 Lygus bugs after petal drop (10 sweeps)
5) Management Options:

**Biological:**
Lygus bugs have several natural control agents.

**Chemical:**
There are several registered Insecticides like (Imidacloprid or Bifenthrin) that can be used once populations have reached economic threshold levels.
1) **Pest Description:**

- Shiny, 2 – 3 mm and have enlarged hind legs.

**Flea Beetles - *Phyllotreta Cruciferae* (Goeze)**

**Striped Flea Beetle - *Phyllotreta Striolata* (F.)**
Flea Beetle/Striped Flea Beetle

2) Lifecycle:

- **Fall**: Summer generation of adults July - Oct.
- **Winter**: Overwintering adults emerge May - June
- **Summer**: Egg laying June - July
- **Pupa**: Larvae Overwintering adults die off April - May
- **Adult**: Greatest damage July - October

### Timeline
- Adults emerge and feed on seedlings
- Pupation
- Adults emerge
- Adults feed and go to overwintering sites
Flea Beetle/Striped Flea Beetle

3) **Damage/Symptoms:**
   - Moderate to severe leaf feeding
4) **Monitoring:**

- Continue scouting for 2 weeks, especially on sunny, calm days.
5) **Thresholds/Management:**
- Canola seedlings can withstand 50% leaf loss.
- The economic threshold for flea beetle feeding on canola is when there is 25% defoliation and flea beetles are *present*. 
Flea Beetle/Striped Flea Beetle

5) Management Options:

Cultural control:
- Seedling Vigor
- Crop rotation?

Biological Control:
- NO
5) **Management Options:**

Chemical:
- Seed treatments or post-emergent foliar sprays
Additional Canola Insect Pests

- Alfalfa looper
- Bertha Armyworm
- Beet webworm
- Cabbageworms
- Clover Cutworm
- Diamondback moth
- Grasshopper*
- Painted Lady, Thistle Butterfly
- Red Turnip Beetle
- Root Maggots
Thank You

Helping You Put Knowledge to Work

Dale Whaley
Agriculture & Integrated Weed Management
Regional Extension Specialist: Chelan/Douglas
dwhaley@wsu.edu
Phone: 509-745-8531 ext 252    Fax: 509-745-8619