**European Corn Borer**

**General Facts:**
- First generation develops from overwintering larva
- Usually only 1 generation in the north
- Multiple generations in the south and mid-Atlantic regions
- The damage in potatoes is from internal stem feeding, which causes the stalk to break, killing the plants, or results in a secondary bacterial infection.

Recommend utilizing IPM program with pheromone or black light traps according to local extension data.

**Aphids (Potato and Green Peach and many others).**

**General Facts:**
- The life cycle of aphids is very unusual and complicated, and includes several body forms and different modes of reproduction.
- Nutrition, crowding on the host plant, geographic location and the time of year are the most important factors influencing the aphid life cycle.

**Recommended Economic Thresholds**
- **Seed:** 10% of plants with aphids, or 1 winged Green Peach Aphid
- **Processing/Tablestock:** 50% of plants with aphids, or 1 winged Green Peach Aphid

**Colorado Potato Beetle**

**General Facts:**
- Adult Colorado Potato Beetles are about half the size of your thumbnail, oval in shape, and are a yellow-orange color with 10 narrow black stripes on the forewings (elytra).
- The adult Colorado Potato Beetle overwinters in the soil either in the potato field itself or in field margins.
- In the north the beetle overwinters most successfully in windbreaks and other wooded areas surrounding potato fields.
- In spring, adults begin to emerge at about the same time potatoes emerge.
- Adults feed for a short while in the spring, then begin to mate and lay clusters of 10 – 30 yellow eggs on the underside of the leaf.
- Females typically lay 350 or more eggs during their lives that can last several weeks.
- The Colorado potato beetle has few natural enemies, and those that do feed on the eggs, larvae, pupae, or adults have little impact on the Colorado potato beetle populations.
- Use chemical class rotation to avoid resistance issues. Brigadier® is an option on pyrethroid resistance CPB.

**Recommended Thresholds:**
- 25 Adults per 50 plants
- 75 Large Larvae per 50 plants
- 200 Small Larvae per 50 plants

**Red-headed Flea Beetle**

**General Facts:**
- Potato flea beetles appear beginning at emergence
- Produce small round puncture holes in leaves
- Cause yield reduction due to reduced growth and vigor
- The larvae feed on potato roots.
- Second brood of adult beetles appears in mid-summer
- Second brood can cause damage to foliage, roots and tubers

**Threshold:**
- Spray when 10-15 shot-holes appear per terminal leaf

**Tarnished Plant Bug**

**General Facts:**
- Damage usually confined to flowers and leaflets
- Overwinter some in the MidAtlantic sometimes north
- Can transmit spindle tour virus
- Causes distinctive leaflet twisting

**Approximate Threshold:**
- 25 bugs in 25 sweeps

---

**Economic Threshold:** In simple terms, when pests reach a population level where the cost of control is equal to or less than the dollar value of yield benefits. In seed potatoes, prevention of any virus transmission is economically necessary.
POTATO YIELD and QUALITY PROTECTION

Potato Aphid

General Facts:
- Overwinters as an egg on various rose species
- Greenish to commonly pinkish color
- Multiple generations per year
- Minimal damage from feeding on sap
- Highest priority is protecting the plant from virus diseases particularly seed stock

Recommended Economic Threshold:
Seed: 10% of plants with aphids,
Processing/Tablestock: 50% of plants with aphids

Potato Leafhopper

General Facts:
- Overwinters in the south
- Causes hopperburn from vascular feeding
- Hopperburn shows up as a browning and necrosis along the margins of potatoes.
- Economic damage is expressed by reduced growth of the crop plants, resulting in reduced yields or, in extreme cases, death of the plants and complete crop loss.

Threshold:
- 1 per sweep in seed potatoes
- 5 per sweep in processor potatoes

Whether you are treating one insect species or a complex, Hero® always performs and gives maximum protection. Protect the yield and quality that you should be getting out of your potatoes.

- Dual-action provides fast knockdown and longer-lasting residual control
- Newly expanded vegetable label in addition to potatoes.
  - Tomatoes, succulent beans and peas, head lettuce, head & stem brassica, sweet corn, peppers
- Excellent plant-health insecticide for yield maximization
- Flexible application (ground or air)

Application Recommendations
- In general, use 4 to 6 oz/acre for insect control in potatoes. The rate varies by insect species. Check the label for actual rate and residual control by species. Refer to respective pest on label.
- Thorough spray coverage of plant foliage is essential for optimum control. Use a minimum of 10 to 20 gal/acre by ground and 3 gal/acre by air.
- REI: 12 hours
- Preharvest intervals for potatoes: 21 days

Always read and follow label directions. Hero and Brigadier are restricted use pesticides.
FMC, Hero and Brigadier are trademarks of FMC Corporation. © 2009 FMC Corporation
LC-01-05MW-07/09 (Rev)
1-888-59-FMC-AG • FMCCrop.com