Root Feeders
Black Vine Weevil Damage
Adult Black Vine Weevil
Legless weevil larva
European Chafer and Asiatic Garden Beetle

Who cares?
- Earlier in the year, harder to control
- EC damages turf

What to look for?
- Evaluate stunted plants for grub injury, especially in containers
- Learn to identify grubs
- Become familiar with behavioral attributes of injury
European chafer adults swarming to tree at dusk for mating
Adults do not feed
European Chafer Pest Threat
Container Nursery and Turf

- Are high in soil profile, can feed through October and even under snow
- Low densities can damage nursery stock
- Damage un-irrigated lawns w/no history grub previous grub injury (JB prefers well maintained turf)
European chafers have Y-shaped anus & two rows of bristles that diverge at anus
Earlier and larger

Y-shaped anus with two rows of bristles.
European Chafer

Projected Distribution (2006)

European Chafer (2000)
Oriental Beetle & Asiatic Garden Beetle –

Three common color forms of Oriental beetle

Asiatic garden beetles feeding & mating
Adults shred leaves
Asiatic Garden Beetle Pest Threat: Perennials, flowers

- **Adult feeding**
  - Flowers (aster, dahlia, mum, roses)
  - Foliage, trees and vegetable crops
    - Shred leaves, like a caterpillar

- **Larval feeding**
  - Roots of perennial plants, flowers and vegetable crops
  - Turf a secondary problem
Oriental beetle  Asiatic garden beetle
Oriental Beetle & Asiatic Garden Beetle

Projected Distribution (2006)
White Grub Adults

Annual Grubs
GJB, EC, SMC, NMC, JB, OB, AGB

Multi-year Grubs, M/JB

Multi-gen/yr Grub, BTA
White Grub Third Instars

Annual Grubs
GJB, EC, MC, JB, OB, AGB

Multi-year Grubs, M/JB

Multi-gen/yr Grub, BTA