



Robert Hadad

Cornell Vegetable Regional Specialist

rgh26@cornell.edu 585-739-4065

WHAT'S BUGGING YOU?

Insect Pests



Onion Maggot



Eggs at Plant Base





Pest Issue

- Maggots $1/16$ - $3/8$ " long & feed on roots
 - Adults lay eggs at base of plants
 - Don't plant garlic near onions
 - Cover crops (grass/grains) nearby may harbor natural enemies
 - Higher organic matter in soil may harbor predatory beetles
 - Conventional: lorsban
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Affected Seedlings



Thrips



Close-up



Pest Issues

- 1/16" long, move rapidly, vary from white to brown
- If you see adults there usually are greater numbers of young
- Less active in cooler weather
- Spinosad – Entrust
- Conventional: Penncap-M, MSR, Warrior II & other pyrethroids, Lannate, Radiant - spinosyns

Feeding at Base of Leaf



Onion & Western Flower Thrip



Seed Corn Maggot





Pest Issues

- 1/4" long prefer high organic matter/residues and cold wet soils
 - Be sure nearby green manure cover crops disced under completely to speed up decomposition
 - Natural enemies including some nematodes and parasitoid and predatory beetles
 - Conventional: Lorsban, Sepresto,
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Cutworms



Pest Issues

- Natural enemies
- *Winthemia quadripustulata* - tachinid fly
- *Steinernema carpocapsae* – predatory nematode
- *Bacillus thuringiensis*
- Feed at night
- Likes heavier crop residues
- Conventional – Lannate, Warrior, Mustang

Bulb Mites





Pest Issues

- Most damage occurs at the roots and basal plate
 - Remove all bulbs remaining in the field after harvest
 - Destroy cull piles
 - Wide host range
 - No pesticides available
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Wheat Leaf Curl Mite





Pest Issues

- Affects garlic in storage
 - Feeding damage opens up injury to rots
 - Periodically shows up
 - May be linked to previous use of grain cover crop
 - Wheat, rye, sorghum/Sudan grass
 - Rotate cover crops with legumes
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Leek Moth



Pest Issues

- Moth is 1/2" speckled with white spot half way down wings
- Larvae are creamy yellow 3/8-1/2"
- On garlic larvae feed on the leaf surface but & don't feed all the way through. Found in the protection of the folded leaves
- Feeding damage: whitish dead patches or streaks running down leaves. & on the scapes of hardneck garlic.
- The first generation (May-June) feeds on the leaves. The worst damage is done by the second generation (July-August) as it moves down the leaves into the bulb.
- Feeding damage stunts plant growth, bulb rot and storage rot
- Entrust
- Conventional: Warrior II, Lannate LV, Radiant

Feeding Damage at Harvest & Found in Storage



Pest Issues

- Not sure what it is
- Found in soil at harvest
- Found in stored garlic
- May be wire worm damage
- May be maggots of storage moths

