

CALIFORNIA GARLIC AND ONION RESEARCH ADVISORY BOARD

2007-2008 Research Proposal Priorities (Research interests prioritized within groups)

Diseases

- White Rot (garlic and onions)
 - Continue evaluation of chemical controls in conjunction with biostimulants. Evaluate mixtures of conventional chemicals.
 - *Continue evaluation of garlic juice use as biostimulant including rate development and application methods (sprinkler)*
 - *Evaluate reduced rates of synthetic stimulant DADS*
 - Evaluate in season treatments applied via chemigation/drip irrigation
 - Assess biotechnology approach for germplasm resistant to white rot
 - Develop practical field survey and bioassay method for determining levels of white rot sclerotia in field
 - Re institute white rot stewardship plan for all growers
- Garlic Rust (garlic)
 - Screen new fungicides for activity
 - Identification of resistant varieties
- Botrytis (onions and garlic)
 - Determine fungicide spray timing for *B. alli*
- Soft Rots (onions and garlic)
 - Continue to evaluate copper and chlorine as control agents
 - Determine sprinkler irrigation effect on disease development
- Downy Mildew (onions)
 - Screen new fungicides for activity on mildew

Nematodes

- Bulb and Stem (onions and garlic)
 - Screen chemical control products as replacement for Vydate
 - Confirm effect of non-host plants/rotations on reducing bulb and stem nematode populations in field

Insects/Mites

- Thrips (onions)
 - Test new conventional chemistry and biorational pesticides to control thrips feeding and spread of IYSV
 - *Develop seed treatment data to support western states Section 18 on thrips*
 - Species ID, virus incidence in weeds and non-symptomatic host crops of IYSV and TSWV in CA onion and garlic areas
 - Determine contribution of thrips in garlic to ISYN spread
- Maggots (onions)
 - Test new chemistry for maggot control
 - *Develop seed treatment data to support Section 18*
 - Determine impact of loss of OP chemistry on control
- Bulb Mites (onions)
 - Determine source of infestation (seed/soil/debris)
 - Screen new pesticides for control

Weeds

- Screen new herbicides for pre-emergence activity
- Register Roundup on onions and Shark/ET on onions and garlic for pre-harvest control of morningglory, field bindweed and nutsedge

Other

- Develop crop production budgets for processed onions and garlic SJV