WELCOME to the 2017 CALIFORNIA GARLIC & ONION SYMPOSIUM

John Duffus, Vice-Chairman
California Garlic & Onion Research Advisory Board
The purpose of GORAB is to fund agricultural research for fresh, dehydrated and processed garlic and all process onions.
FORMATION OF GORAB MARKETING
ORDER: MEMBERSHIP

- All fresh, dehydrated and processed garlic
- All processed onions
- All garlic and onion seed growers
- Areas include Southern desert, San Joaquin Valley and Tulelake production regions

CURRENT MEMBERS:
Sensient Natural Ingredients, LLC
Christopher Ranch,
Harris Fresh,
Sequoia Packing,
The Garlic Company,
Olam Spices and Vegetables,
George Chiala Farms and their growers
RESEARCH BUDGET

Commitment to Generate $100K per year for:

- **White rot research:**
  - Conventional and Biopesticide research
  - Application technology
  - Precision agriculture (GPS-mapping) techniques to manage white rot infestations
  - Natural Biostimulants

- **Other pest problems:**
  - Garlic Rust
  - Iris Yellow Spot Virus
  - Bulb mites
  - Nutsedge and bindweed
  - Onion Maggot
GORAB RESEARCH FUNDING 2005-2016

- **WHITE ROT RESEARCH**
  - $652,875

- **ONION THRIPS, WEED CONTROL & RUST/DISEASE MANAGEMENT**
  - $466,021

Eleven year total $1,118,896
GORAB CORE OBJECTIVES
CAGORAB CORE OBJECTIVES

1. Continue to support the White Rot Master Plan
   ◦ Industry agreed to guidelines for preventing further spread of white rot
2. Consider new white rot integrated strategies, including biotech, biopesticides, & cultural control
3. Develop Thrips Management Plans for Imperial Valley, Central Valley & Tulelake
4. Continue work on weed control, pest management and disease control as needed
5. Update Research Objectives with Input from other Allium Industries (fresh onion) and Academic resources.
WH ITE ROT STRIKES
SAN JOAQUIN VALLEY 1994 - 2016
21,743 Acres on 144 Fields

No. Acres by Year
WHITE ROT MANAGEMENT
STILL OUR CORE OBJECTIVE
White Rot Management Plan

• **Recommendations**
  ◦ **Garlic Seed Field Management**
    • Inspect all seed fields for white rot or other pathogens
    • Wash harvest seed bins before use
    • Minimize equipment movement in and out of seed fields
    • Sanitize all equipment before entering a seed field
  ◦ **Re-establish Garlic Seed Certification Programs**
  ◦ **Restrict Planting and Harvesting in areas known to have white rot**
  ◦ **Report all Fields with White Rot Infestations**
White Rot Mapping Plan

- Utilize GPS mapping system
- Use software to allow mapping of infected sites
- Use mapping software to identify infected sites for targeted treatment
- Obtain additional grant $$ to expand program and purchase additional hardware and software for mapping and application

Tom Turini & Andres Biscaro
Site specific management strategies
Research Objectives White Rot

• Reduce/ Eliminate WR sclerotia (reproductive bodies) in infected fields to allow Alliums to be re-planted
  ◦ Detect and quantify bioactive sulfur compounds in juice, oil, onion/garlic waste that will germinate WR sclerotia
  ◦ Look for alternative organo sulfur compounds with biostimulant properties
  ◦ Determine utility of garlic juice/oil, compost for white rot management
  ◦ Utilize Tulelake and West Side Fresno white rot plots to prove concept

• Determine utility of metam after harvest for white rot management
Current White Rot Research Projects

- **Research Grants**
  - Specialty Crops Grant
    - Dr. Mike Havey, U WI
    - Dr. Hanu Pappu (WSU)
      - IR-4 & USDA Reg. IPM
- **GORAB Funding**
  - Dr. Jeriamiah Dung (OSU-Madras)
  - Dr. Michael Qian (OSU FS)
  - Dr. Mike Davis (UCD)
  - Rob Wilson (UCCE IREC)
  - Tom Turini (UCCE Fresno)

- **GORAB White Rot Task Force**
OUTREACH ACTIVITIES

- CA SPECIALTY CROPS COUNCIL – MRL Workshop, Field Tours, Washington DC meeting w/ EPA, USDA, FDA
- Attend/ participate at National Onion Association and Allium Research Conference
- USDA NIFA SCRI GRANT REVIEW COMMITTEE
- W2008 WORKING GROUP (ALLIUM RESEARCHERS NETWORK GROUP)
Welcome to:
CAGARLICAND ONION.COM

About

Latest News

2013 Symposium Presentations are Now Online
Download from here

Spring 2013 Newsletter is now Online
Download

Save the Date!!
California Garlic and Onion Symposium 2014 read more

California Garlic & Onion Research Committee

The California Garlic and Onion Research Committee was established January 1, 2005 as a state marketing order under the supervision of the California Department of Food and Agriculture. The driving force behind the establishment of the marketing order was a concern by growers, processors and handlers to manage the rapidly spreading threat to Allium production areas by the fungal pathogen white rot (Sclerotium cepivorum). Through mandatory assessments, it is our goal to fund $100,000 annually for basic and applied research as well as for demonstration projects. We highly encourage receiving
THANKS FOR YOUR SUPPORT