WELCOME TO THE 2010 CALIFORNIA GARLIC & ONION SYMPOSIUM

Kevin Lehar
Chairman
California Garlic & Onion Research Advisory Board
The CA Processed Onion and Garlic Industry

- **Garlic**
  - 14,000 acres statewide
  - 95% of total US production
  - 95% Fresno, Kern, Kings Counties
  - 60% processed
  - Farm gate value $190 million
  - Ranks 37th in state crop value

- **Onions**
  - 49,000 acres statewide
  - 24,000 processing onions
  - Also grow in AZ, NV, OR
  - ~50% of production processed
  - Farm gate value $150 million
  - * Based on 2008 Ag Commissioner’s Data
CAGORAB
THE FIRST 5 YEARS
FORMATION OF MARKETING ORDER: PURPOSE

- **Organize** onion and garlic growers to develop white rot management program
- Conduct long & short term research in white rot management
- Develop **White Rot Master Plan** to prevent further spread of disease
- **Initiate other research programs** on processed onions and all garlic as problems are presented
- Maintain CA position as **leader** in superior quality Allium products
- **Compete** in an ever increasing competitive world (China/India)
- **California Garlic and Onion Research Program** issued by CDFA on January 1, 2005
FORMATION OF MARKETING ORDER: MEMBERSHIP

- All fresh, dehydrated and processed garlic
- All processed onions
- All seed onion and garlic growers
- Areas include Southern desert, San Joaquin Valley and Tulelake production regions
- CURRENT MEMBERS: Con Agra Food Ingredients, Sensient Dehydrated Flavors, Christopher Ranch, Harris Fresh, Sequoia Packing, The Garlic Company, Olam West Coast Key Food Ingredients and their growers.
Research Proposal Priorities

- **Diseases**
  - White Rot (garlic & onions)
  - Garlic Rust
  - Botrytis
  - Soft Rots
  - Downy Mildew

- **Nematodes**
  - Bulb & Stem

- **Insects/Mites**
  - Thrips (onions & garlic)
  - Maggots
  - Bulb Mites

- **Weeds**
  - Pre-emergence materials
  - Pre-harvest control of morningglory/bindweed/nutsedge
RESEARCH BUDGET

- Commitment to Generate $100K per year for:
  - **White rot research and commercial implementation of tools to manage white rot**
    - Conventional and Biopesticide research
    - Application technology
    - Biotech project w/New Zealand Institute for Crop Research
  - **Solutions to other pest problems facing CA growers, handlers, and processors**
    - Garlic Rust
    - Iris Yellow Spot Virus
    - Bulb mites
    - Nutsedge and bindweed/morningglory control
RESEARCH FUNDING 2005-2010

- **WHITE ROT RESEARCH**
  - Crowe (OSU), Carlson/Wilson (Tulelake), Davis (UC Davis), Mueller/Turini (Fresno), Eady (New Zealand), Giles (UCD Ag Engineering)
  - $271,900

- **ONION THRIPS, WEED CONTROL & RUST/DISEASE MANAGEMENT**
  - Koike (Monterey), Hembree (Fresno), Poole (LA County), Nunez (Kern), du Toit (WSU)
  - $69,420

Five year total $341,320
PROPOSED FUNDING 2010

- WHITE ROT
  - Davis (UCD), Turini (Fresno), Giles (UCD), Eady (New Zealand), Bo Ming Wu (OSU)
  - $71,410

- THRIPS, SEED CORN MAGGOT, HERBICIDE PLACEMENT
  - Wilson (Tulelake) Orloff/Godfrey (UCD), Wilson/Godfrey (UCD), McDonald (Guelph), Pappu (WSU)/Henderson (Imperial)
  - $43,725
What did we get for our $$?

- **BASF**
  - Provided research data to support registration of Outlook Herbicide for nutsedge control
  - Supported IR-4 research project for registration of Endura fungicide for white rot management (pending)

- **MONSANTO**
  - Section 24(c) for use of Roundup WMax after dry-down to control bindweed and morningglory in garlic

- **VALENT**
  - Supported research data for registration of Chateau on garlic

- **FMC Corporation**
  - Section 24(c) petition to register Shark (carfentrazone) in season for bindweed and morningglory control (Shark to follow Roundup for burndown)
What did we get for our $$?

- **ACETO Chemical Co.**
  - Developed data package and assisted with submission and registration of DADS biostimulant in CA

- **SYNGENTA**
  - Jointly developed garlic rust management strategy using Quadris as preventative and Folicur Section 18 for active rust infection
  - Cooperated in developing Dual Magnum use through sprinklers on onions and garlic
  - Working on getting Section 24(c) for use on onions after dry down for bindweed and nutsedge
  - Through cooperative effort support IR-4 registration of Cannonball (fludioxanil) in furrow on onions and garlic for white rot
What did we get for our $$?

- Working with Ag Chem Companies obtained:
  - Bayer CropScience
    - Section 18 Folicur for garlic rust control (7 years running)
    - Section 3 full label for Folicur use to control garlic rust and for white rot management (DPR)
    - Research Authorization to evaluate Folicur banded commercially on 100 acres in Tulelake and SJV 2008
    - Section 18 for use of Poncho (clothianadion) for seed corn maggot control Klamath Basin 2009 (tolerance established- waiting for CA label)
What did we get for our $$?

- In third year of long term research program with Dr. Colin Eady at New Zealand Institute for Plant and Crop Research in New Zealand to develop white rot resistant garlic and onion plants ($25K per year invested)

- Have worked with NV Onion and Garlic Council to fund projects of joint interest

- Working with Allium Research Committee to find answers to managing Iris Yellow Spot Virus. Funding Dr. Hanu Pappu, Virologist at WA State Univ.

- Participate in CA Specialty Crop Tour for EPA, USDA, CA DPR and other state and federal agencies

- Board member and CEO trips to WA DC to promote research funding for garlic and onion projects
Where do we go from here?

- Continuation hearing conducted by CDFA on October 15, 2009

- Based upon testimony, CDFA ordered continuation of CA Garlic and Onion Research program through February 28, 2015
CRITICAL ISSUES FOR INDUSTRY

- **Water**
  - Cities versus agriculture
  - Endangered species (Delta smelt)

- **Environmental Issues**
  - Clean Water Act
  - VOCs (Clean Air Act)
  - Endangered species

- **Foreign competition**
  - China, India, Argentina

- **Anti-Ag sentiment**
  - Federal and State Governments
  - US EPA and CAL EPA

- **Loss of funding for University Extension Agents**
Reinstate White Rot Master Plan
  - Industry agreed to guidelines for preventing further spread of white rot

Expand scope of Research Board to Include ALL Allium Crops
  - Ask dry bulb industry to participate on ad hoc basis for non-white rot problems
  - Provide a unified voice for CA Allium production

Evaluate Effectiveness of Current State Inspection Programs for Allium Seed Production

Update Research Objectives with Input from ALL of Allium Industry
QUESTIONS???

THANKS FOR YOUR INTEREST AND SUPPORT!

2010 California Garlic & Onion Symposium
Latest research results for Growers and Allied Industry