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Jumbo Yield of 30% Respectively

OxiDate® 2.0

Control of Botrytis in Onions

OxiDate 2.0 Field Applications on Botrytis Storage Rot in Onions, 2012

Researchers: Dr. Howard Schwartz, Kris Otto, & Mark McMillan
ARDEC, Colorado State University

Crop: Seeded Yellow Onion (*Allium cepa 'Granero'*)

Organism: Storage Rot (*Botrytis alii*)

Botrytis Neck Rot caused by fungus *Botrytis allii* can cause significant storage losses in onions. Fungal spores infect leaves but may not produce symptons until storage. Infected scales near the neck region of onions become brown, spongy, and eventually dry out.

The objective of this 2012 field study was to evaluate field applications of OxiDate 2.0 on plant and storage infections caused by *Botrytis allii*. A total of six sprays were made between July 25 and August 29, 2012, during bulbing on a seven day interval. Plants were inoculated after two to three sprays with *Botrytis allii* on August 2 and August 9. Treatments were evaluated for foliar and post-harvest storage infection, phytotoxicity, and yield.

Features & Benefits

- Zero-Hour REI, Zero-Days to Harvest
- Exempt from Pesticide Residue
- No Mutational Resistance
- Also Effective Against Bacterial Soft Rot and *Xanthomonas* Leaf Blight

Application Program

- Treatments were applied in 271.5 ml of water (1086 ml for 4 reps) = 25 GPA with a CO_2 backpack sprayer, using Teejet 8002 flat fan nozzles spaced 30" apart on a boom (1 nozzle / 30" bed).
- Plots were 5' x 25' (125 ft2 x 4 = 0.011 A). Plants were inoculated after 2-3 sprays with *Botrytis allii* at 10^7 conidia/per ml.

continued on back.

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Table 1. Treatments and Rates

Treatment	Rate/Acre
1. Untreated Control	N/A
2. OxiDate 2.0 + Induce (Surfactant)	128 fl. oz. + 0.125% v/v
3. OxiDate 2.0 + Pristine + Induce	64 fl. oz. + 12 fl oz. + 0.125% v/v

Summary & Results:

No phytotoxicity was observed with any of the treatments. No foliar infection was observed either. After 60 days or more in storage, OxiDate 2.0 + Pristine exhibited up to 20% less Botrytis Storage Rot incidence than the untreated bulbs. Total yield was 18% greater for OxiDate 2.0 treatments. Jumbo yield was 20-30% greater for OxiDate 2.0 treatments in the absence of any foliar damage by Botrytis or other diseases. Economically, a 10% increase of total yield and especially the desired jumbo component for a yellow onion variety could gross an additional profit for the grower who applied OxiDate 2.0 on a timely basis when fungal diseases threatened the crop.

For full results, please contact BioSafe Systems.

Figure 1. OxiDate 2.0 and Botrytis Rot

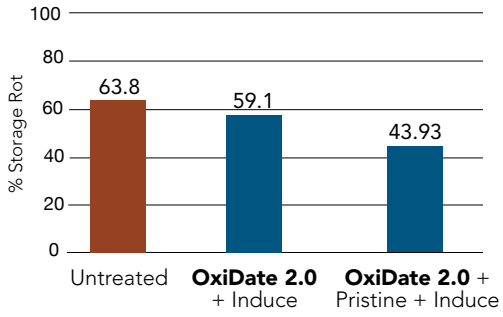
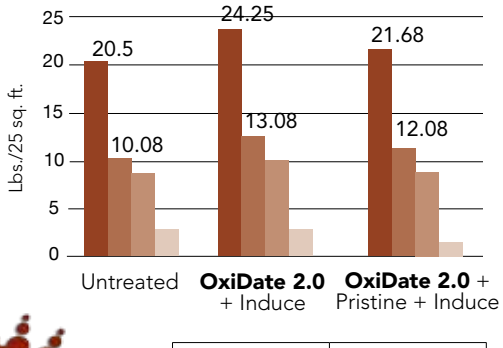


Figure 2. OxiDate 2.0 and Onion Yield



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