

Title: Performance of BioSave in Preventing Decay of Stored Bartlett Pears

Objective: To determine the performance of the biofungicide BioSave 110 in preventing decay of Bartlett Pears stored at least 6 weeks.

Materials:

1. 150 boxes of size 100 Bartlett Pears
2. 1 carton BioSave 110.
3. 4mm x 3mm wounding tool
4. Fungicide currently being applied at cooperating packer (Alex R. Thomas, Ukiah, California)

Treatments: (100 fruit X 50 replications per treatment)

1. Untreated control
2. BioSave 110
3. Mertect

Procedure: Bartlett pears will be treated during the normal packing operations. Control fruit will be chosen from the morning run with no chemical applied. The BioSave treatment will be applied with the typical dripper apparatus mounted above an overhead brush applicator mounted on a roll elevator. BioSave will be applied at a rate equivalent to 100 cartons (4,000 lbs.) of fruit per gallon of mixed BioSave solution (1 carton / 40 gal. water). Mertect is applied by air liquid nozzles mounted above the roll elevator just prior to the overhead brushes. The chemical is mixed at 16 ounces per 100 gallons water, and applied at approximately 100 gallons per hour. The BioSave and Mertect treatments will be collected as full box replicates, stacked on pallets and placed in cold storage. Five additional wounded fruit will be collected from the BioSave treatment for population viability determination. The 5 fruit will be shipped by overnight UPS to:

EcoScience Corp.
153 Sabal Palm Dr.
Longwood, FL 32779
Attn: Jayson Grabowski

Ten unwounded fruit will be collected from the Mertect treatment for surface TBZ residue determination by: Biological Testing & Research Laboratory, Lindsay, CA 93274

All fruit will be labeled, and stored at 32F for six weeks. After six weeks fruit decay and condition will be evaluated. At that time a determination will be made if the fruit will be held for additional time to simulate retail shelf conditions.