

RUTGERS

School of Environmental
and Biological Sciences

The PE Marucci Center for Blueberry and Cranberry Research and Extension

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T1



T2



T3



T4



T5



BLOOM



FRUIT DEVELOPMENT

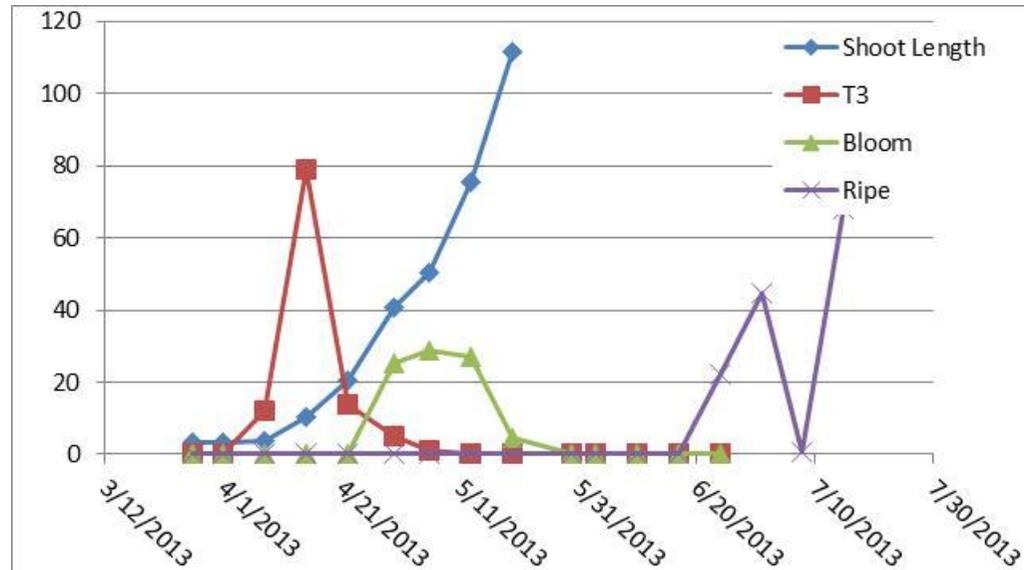


FRUIT RIPENING

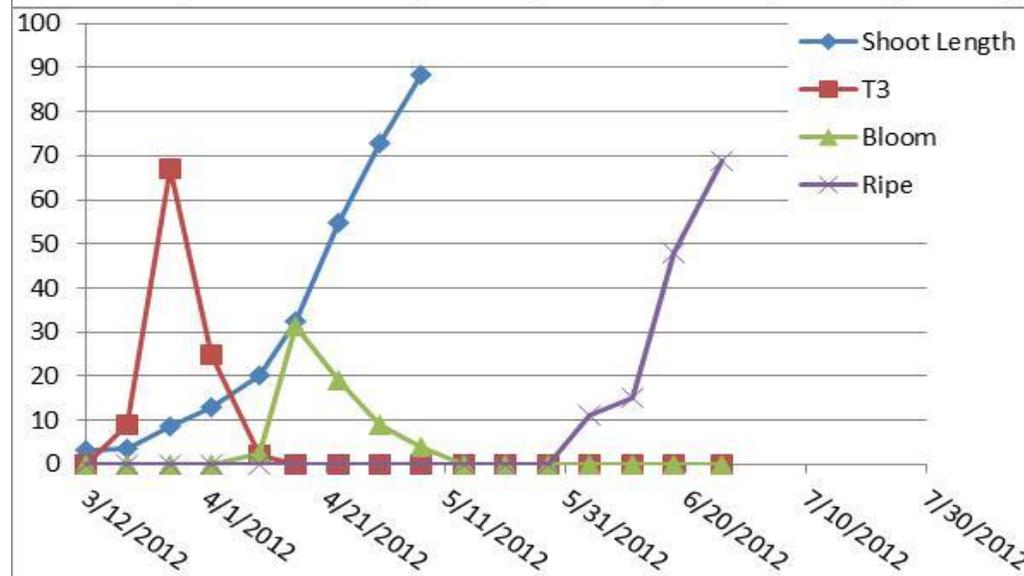


FRUIT SET





2013



2012

Degree Day Calculator

Philip E. Marucci Center
for Blueberry and
Cranberry Research and
Extension

Calculated Degree Days

Station: Hammonton

Year: 2013 Day:85 Biofix:1 Threshold:40

March 25

Cumulative Degree Days: 169.86

Cumulative Chill Units- Model#1: 1667 Model#2: 2571 Model#3: 2230.5

Daily Temperature(°F): High- 49.4 Low- 33.8 Average- 41.1

Daily Rainfall(in.): 0.01

Yearly Rainfall(in.): 6.88

Data based blueberry predictions

<u>Event</u>	<u>Date (M-D-Y)</u>
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T3	04-13-2013
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Bloom	04-27-2013
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Harvest	06-17-2013
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Data based blueberry predictions using [Nation Weather Service temperature predictions for the next 6 days](#)

<u>Event</u>	<u>Date (M-D-Y)</u>
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T3	04-15-2013
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Bloom	04-28-2013
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Harvest	06-18-2013
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Thrips Activity Predictions

Thrips degree day total: 20.79

Predicted Percent Thrips Emergence: 0

10% emergence not expected in the next 6 days.





SULFORIX[®]

(FUNGICIDE-INSECTICIDE-MITICIDE)

ACTIVE INGREDIENT:	BY WEIGHT
Calcium Polysulfides	27.5%
OTHER INGREDIENTS	72.5%
TOTAL	100.0%

Density:

Baume at 68°F	29.9°
Lbs. per gallon at 68°F.....	10.5

Contains calcium and sulfur expressed as gypsum – 2.8 lbs./gal. Total sulfur 2.29 lbs./gal. Other combined sulfur 1.8 lbs/gal.

EPA Reg. No 66196-3

EPA Est. No. 66196-CA-1

BLUEBERRIES: (NOT REGISTERED FOR USE IN CALIFORNIA UNLESS ACCOMPANIED BY SUPPLEMENTAL LABEL) Blueberry Bud Mite – DORMANT TO PREBLOOM – Apply 1 gallon of BSP SULFORIX per acre in sufficient water to achieve thorough coverage and penetration of the buds. POST HARVEST – Apply 1 gallon of BSP SULFORIX per acre in sufficient water to achieve thorough coverage and penetration of the buds. BSP SULFORIX should be applied immediately after harvest before buds are fully formed so the product can reach the mites under the bud scales. A second application before buds are fully formed may be required to achieve control in highly infested sites.

Phomopsis Cane and Twig Blight, Mummy Berry (caused by fungus *Monilinia vaccinii-corymbosi*), apply a POST HARVEST (September or October) or EARLY DORMANT spray of 1 to 2 gallons per 100 to 150 gallons of diluted spray per acre.

NOTE TO USER: Do not use within 14 days of an oil spray or when temperatures are above 85°F. Burning of foliage may occur during periods of warm temperatures.



LIME-SULFUR SOLUTION

ACTIVE INGREDIENT: BY WEIGHT

Calcium Polysulfide	29.0%
OTHER INGREDIENTS	71.0%
TOTAL	100.0%

DENSITY—

Baume at 60°F	31°
Lbs. Per Gallon at 68°F	10.6

Contains Calcium and Sulfur expressed as Gypsum – 3.0 lbs. per gallon. Other combined Sulfur 1.9 lbs. per gallon.

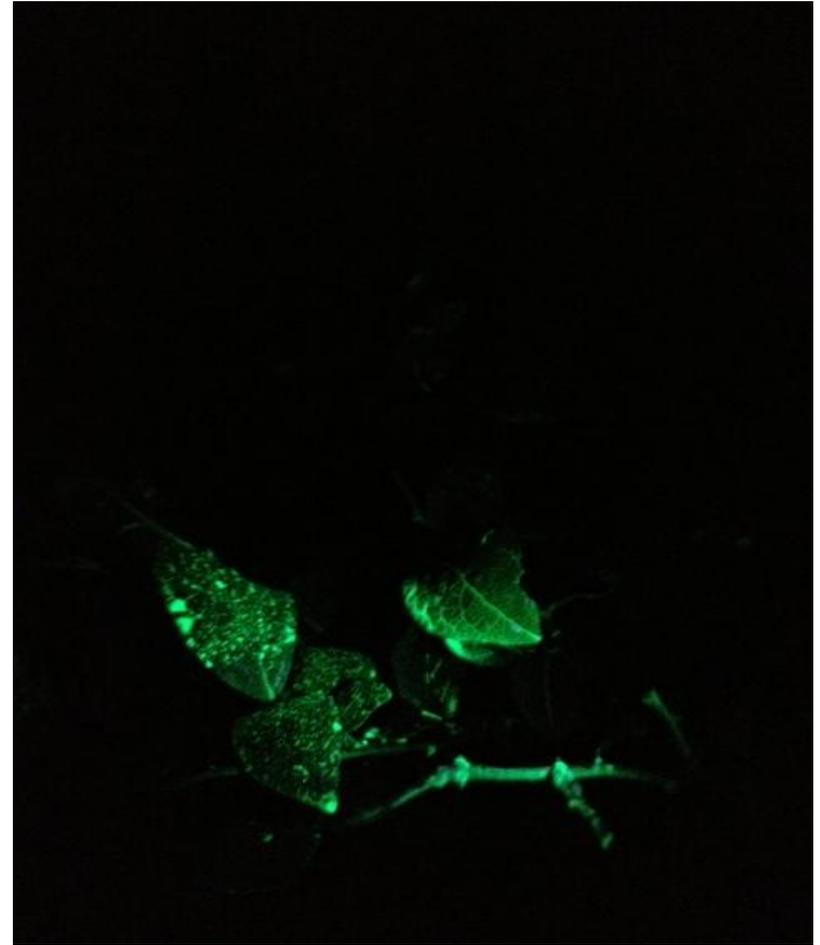
EPA Reg. No 66196-2

EPA Est. No. 66196-CA-1

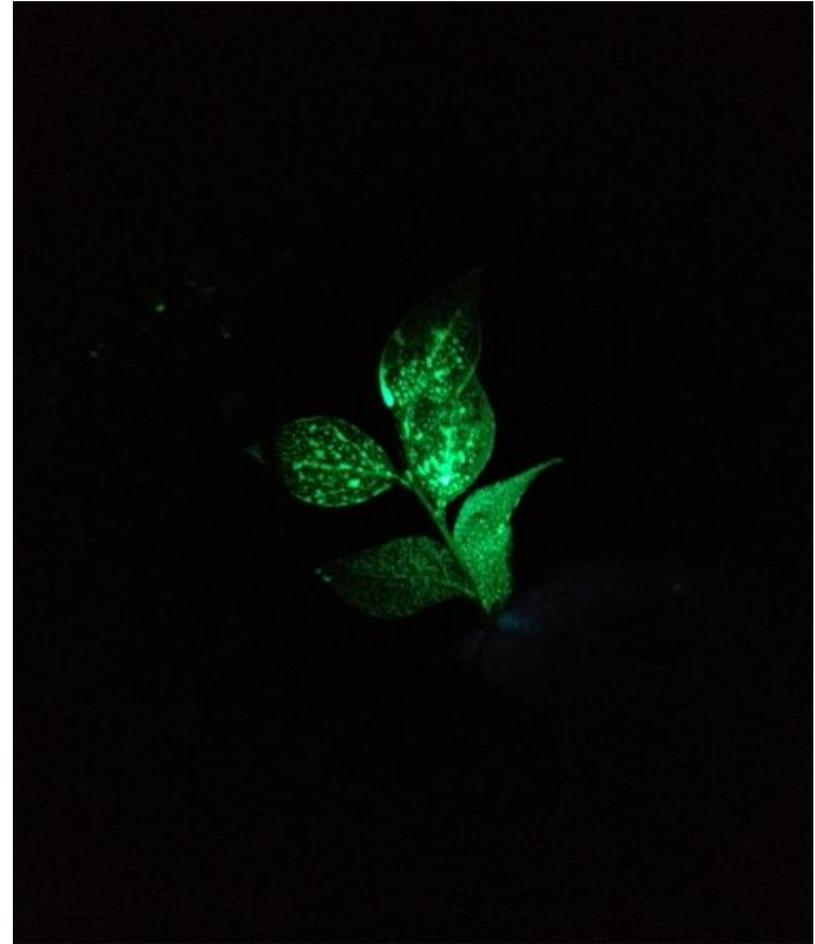
BLUEBERRIES: Phomopsis Cane and Twig Blight – Apply 5 to 6 gallons per 100 to 150 gallons of diluted spray per acre. Apply during delayed dormant stage after leaf buds begin to break. To aid control of Mummy Berry (caused by the fungus *Monilinia vaccinii-corymbosi*), apply a post harvest (September to October) or early dormant spray of 8 gallons Lime-Sulfur Solution per 100 gallons of water. Use 200 to 300 gallons of spray per acre.

NOTE TO USER: Do not use within 14 days of an oil spray or when temperatures are above 85°F. Burning of foliage may occur during period of warm temperatures.

Distribution

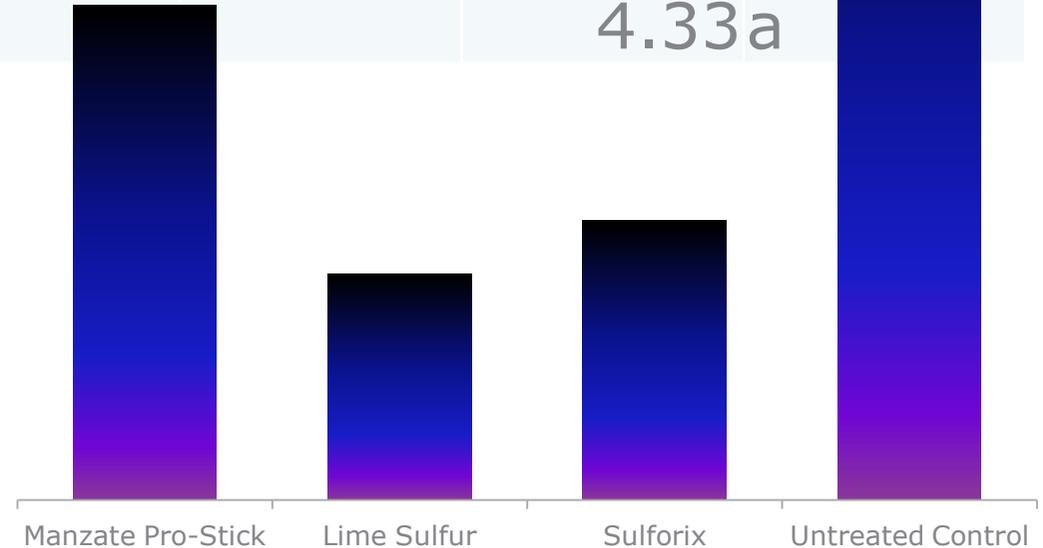


Distribution



Black Shadow Trial

Product	Formulation	Rate/acre	Vol.	Black Shadow
Manzate Pro-Stick	75 DG	2 lb	50 gpa	3.83 b
Lime Sulfur	29.0% L	2 gal.	50 gpa	3.38 c
Sulforix	27.5% L	1 gal.	50 gpa	3.47 c
Control				4.33 a

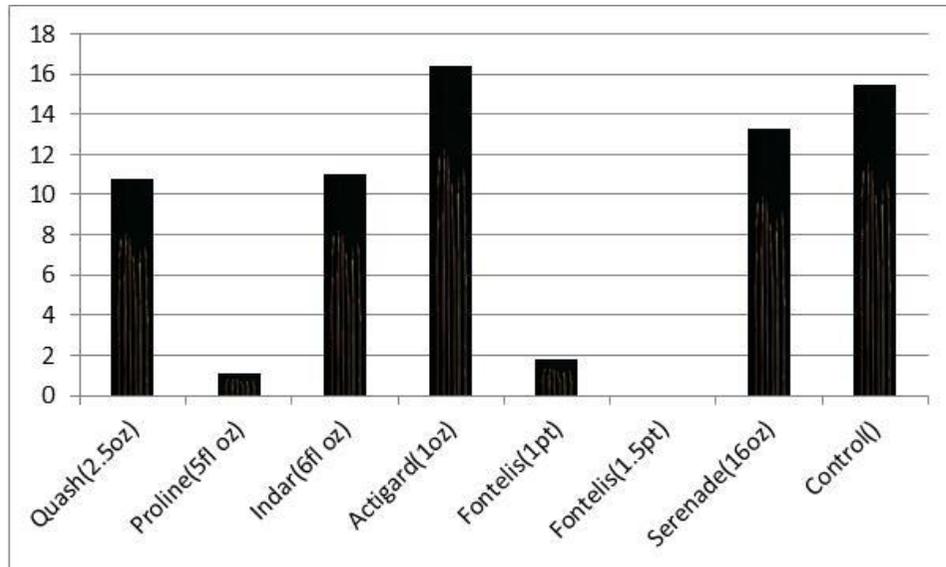


Phomopsis Twig Blight

- Only a few cultivars are susceptible
- Infections are initiated at bud break
- Lime sulfur + Indar gives excellent control

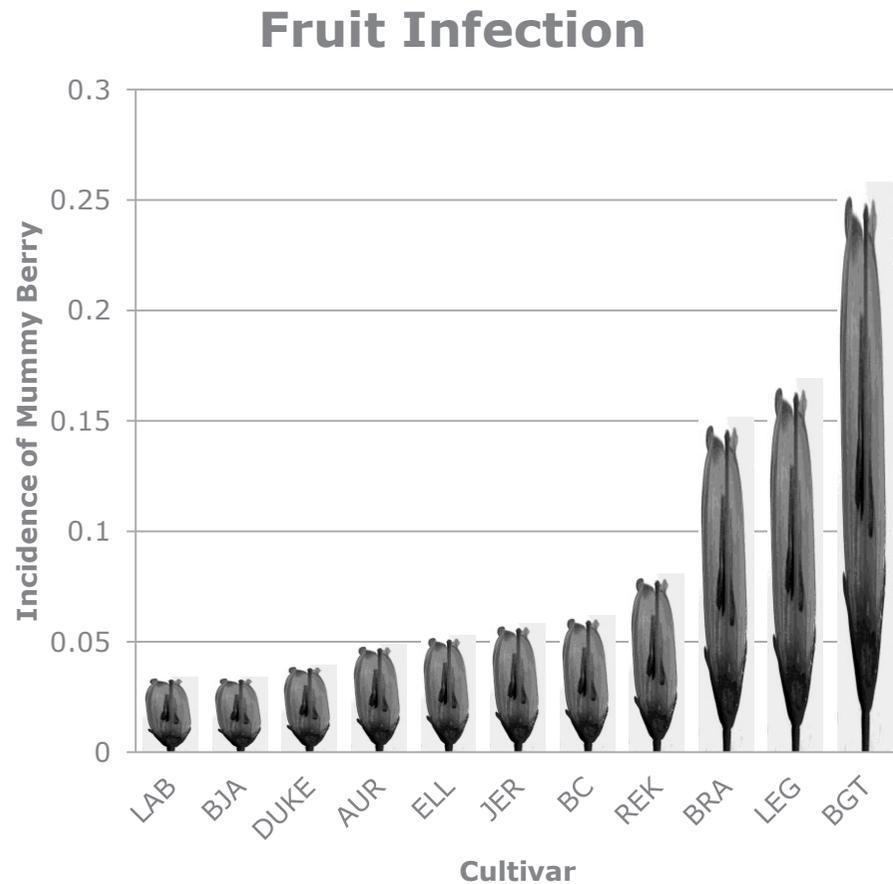


2013 Phomopsis Trial



- Cv Berkeley
- SI Fungicides applied once during bud break (April 10)
- Other MOAs applied twice (April 3+10)

Mummy Berry



- Large Replicated field Trial (4 reps/20plants per rep)



CONTROL

- SANITATION
- Fungicides



DIRECTIONS FOR USE

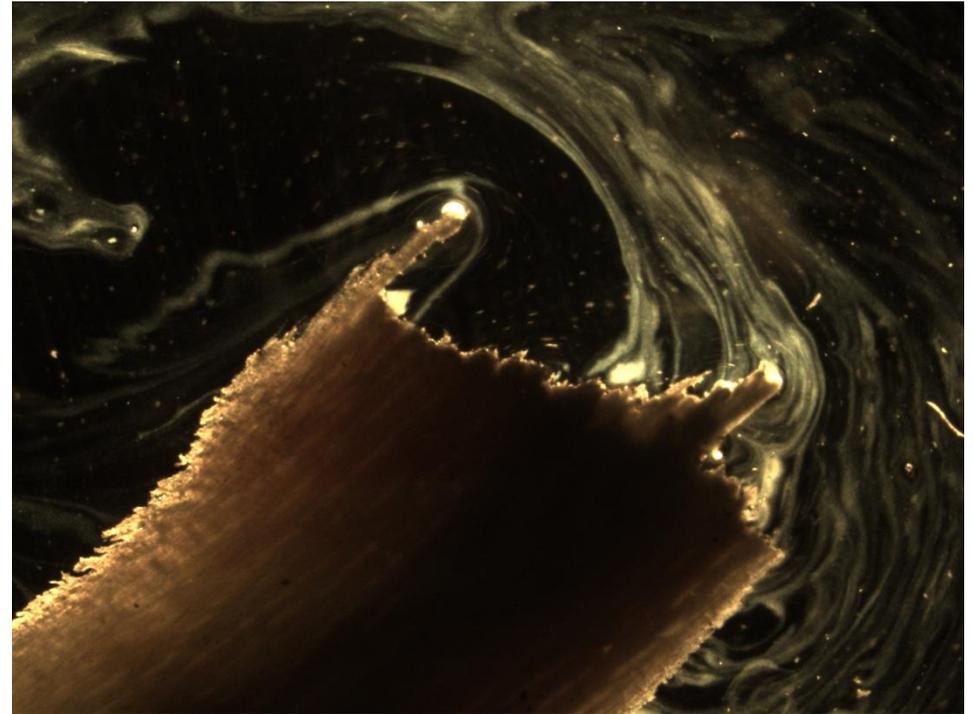
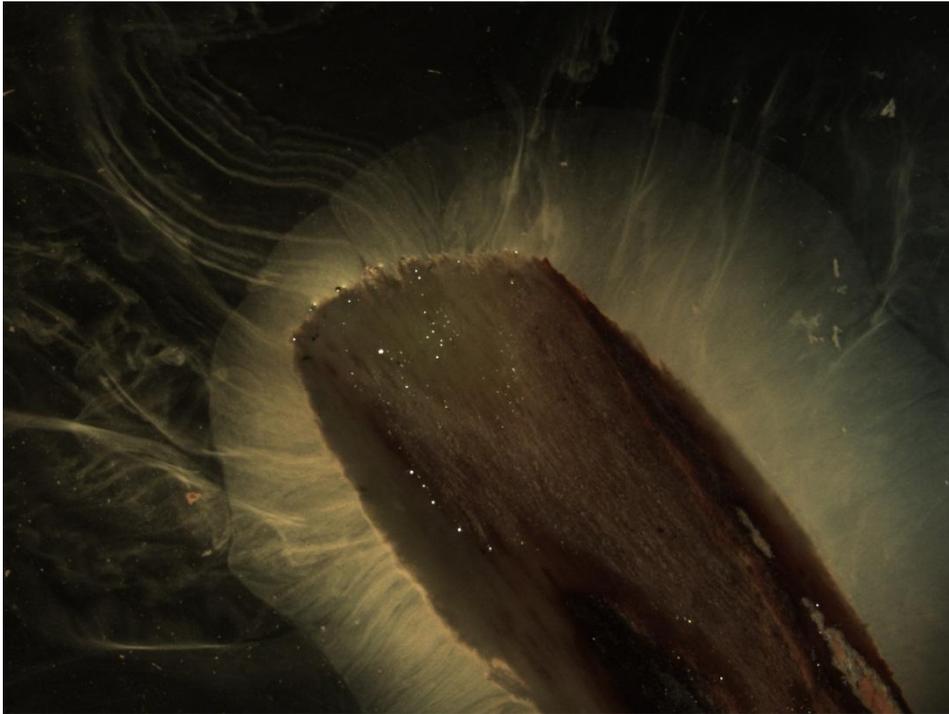
CROP USE DIRECTIONS – SOIL APPLIED OR SOIL DIRECTED

Crop	Disease	Rate oz./100 gal.	Remarks
<p>Bushberries Blueberry: high & low bush Highbush cranberry Black currant Red currant Elderberry Native currant</p>	<p>Cylindrocarpon root rot (<i>Cylindrocarpon destructans</i>) Rhizoctonia root rot (<i>Rhizoctonia spp.</i>)</p>	<p>1 - 2</p>	<p>Propagation Use Apply Cannonball WP at the rate of 1 - 2 oz. per 100 gallons of water. Apply 1 - 2 pints of fungicide solution per square foot of propagation bed so as to thoroughly wet the root zone. Apply prior to or at the time of sticking cuttings and at 2- to 4-week intervals as needed. Cannonball WP may be applied to propagation beds through drip or sprinkler irrigation systems.</p>

Bacterial Blight – *Ralstonia solanacearum*

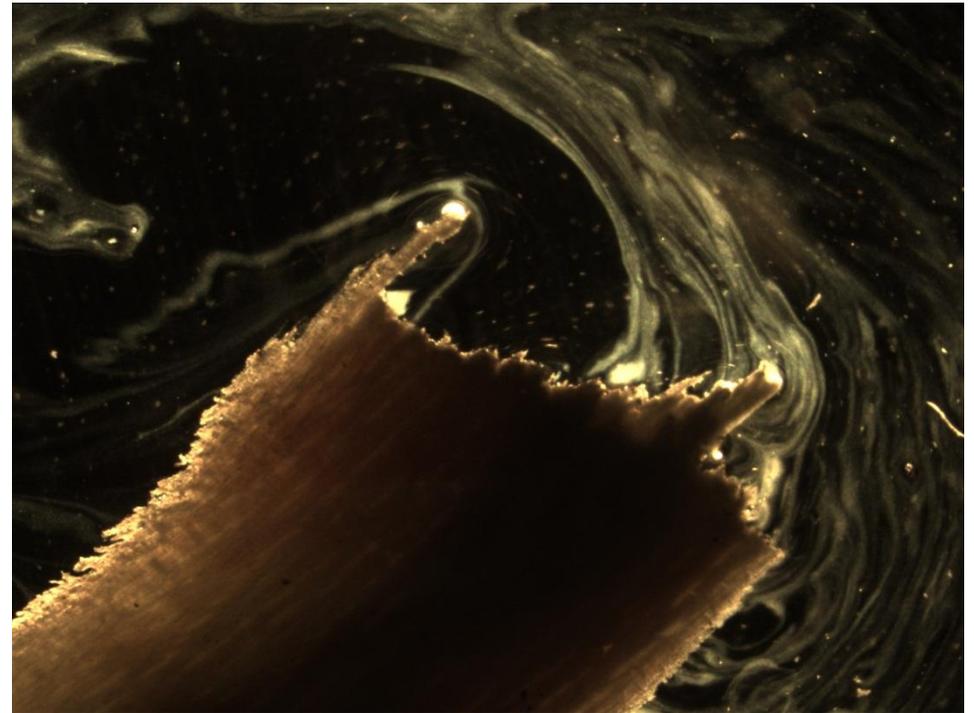


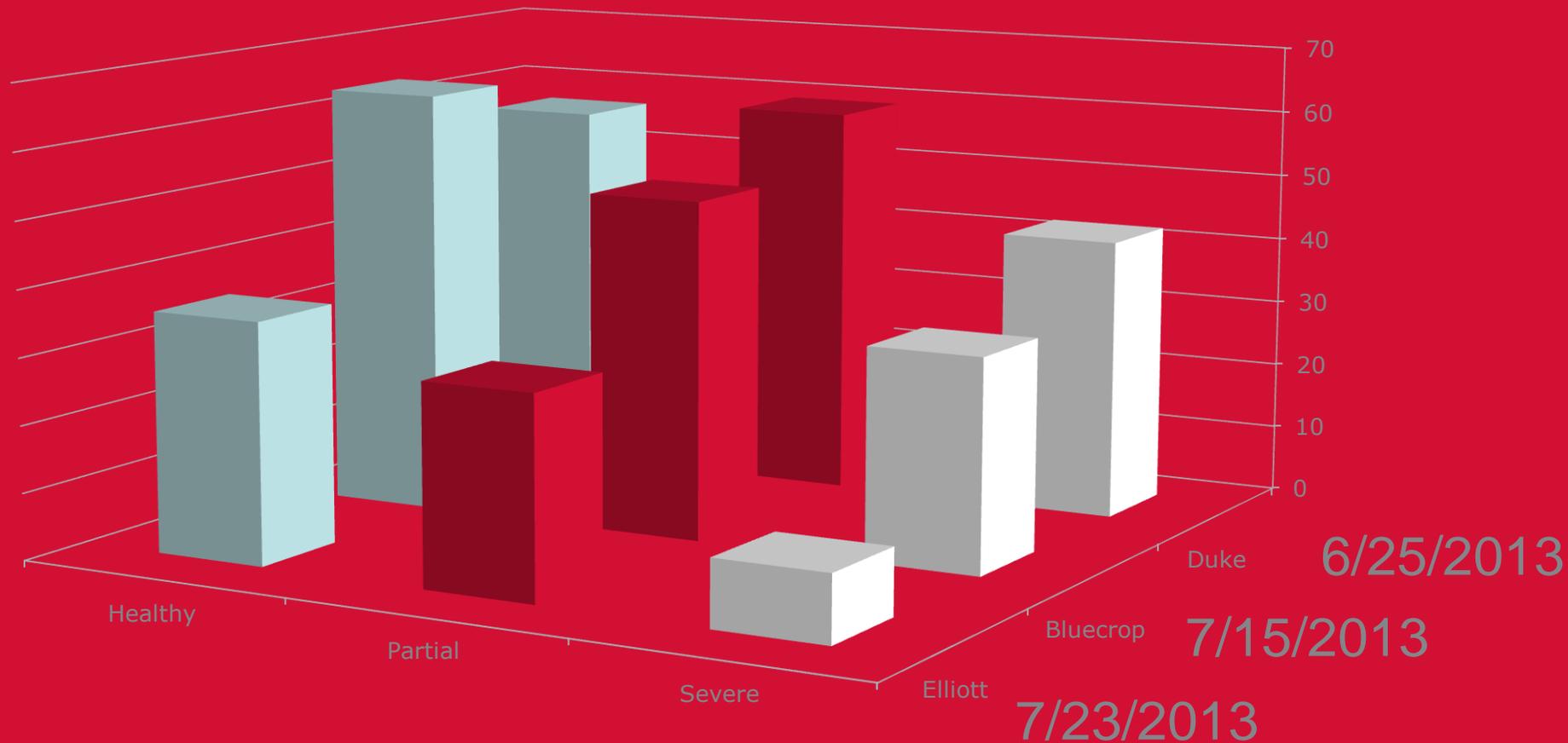
Diagnosis: Streaming



Current Practices used for Management of Bacterial Blight

- None
- New disease and where ever possible avoid introduction
- Rapid diagnosis and quarantine





In Season Blueberry Disease Management for New Jersey

