



Certis Integrated Solutions for Pome Fruit Diseases

H. Brett Highland, PhD.

Field Development Manager, Eastern US, Nokomis, FL

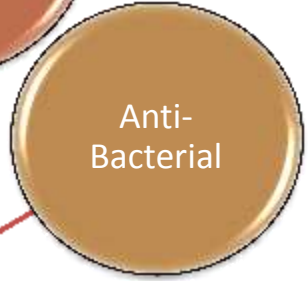


Biological product: Five Modes of Action

Apples: Target Fire blight, scab, powdery mildew, summer diseases.



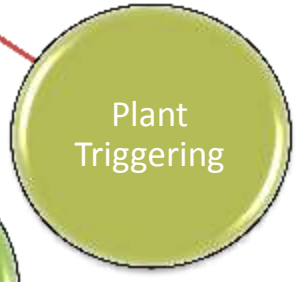
Anti-fungal metabolites kill pathogens by disrupting cell membrane integrity.



Anti-bacterial metabolites kill pathogens by disrupting cell wall integrity.



Improved Nutrient uptake.
Hormonal Interactions



SAR/ISR response



Prevention of infection by pathogens

Double Nickel LC or 55- Use in Apples

- Use rate 0.5-6 qts. (LC) or 0.25-3 lbs. (55 WDG) per acre
- Commercial use rate- 1 qt. and 1 lb. per acre
- For fire blight, begin applications at 1-5% open blossoms and repeat every 3-7 days as necessary until petal fall, when intervals can be increased to 7 days. Alternate with streptomycin.
- Double Nickel can also be used in summer “cover spray” applications to control the shoot blight phase of fire blight and summer diseases.
- Can be mixed with copper fungicides to improve control.

Double Nickel™ LC

BIOFUNGICIDE

Double Nickel 55™

BIOFUNGICIDE

CERTIS

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Cueva™

LIQUID COPPER FUNGICIDE CONCENTRATE

Low Metallic Copper

Cueva contains 1/5th of the metallic copper of other copper fungicides on the market.

Safe for Crops

Low metallic copper results in a high degree of safety for sensitive crops.

Anti-Bacterial

Cueva shows a high degree of activity on bacterial pathogens.

Anti-Fungal

Cueva is highly effective on a broad array of fungal pathogens.

Low Use Rates

Cuevas unique liquid formulation results in no residue issues, mixes well for fresh fruit and vegetables.

OSO™ 5% SC



Product: OSO is an advanced liquid formulation; 5%SC (suspension concentrate)

Active Ingredient: **Polyoxin D zinc salt**; proprietary patented active ingredient, chitin synthase inhibitor

Pome fruit targets: Powdery mildew, scab, rust, summer diseases, fruit rots

Grower Benefits:

- CAUTION label
- 0 day PHI
- 4 hour REI
- Exempt from tolerance
- No MRL issues
- Novel mode of action for resistance management

OSO™ 5% SC

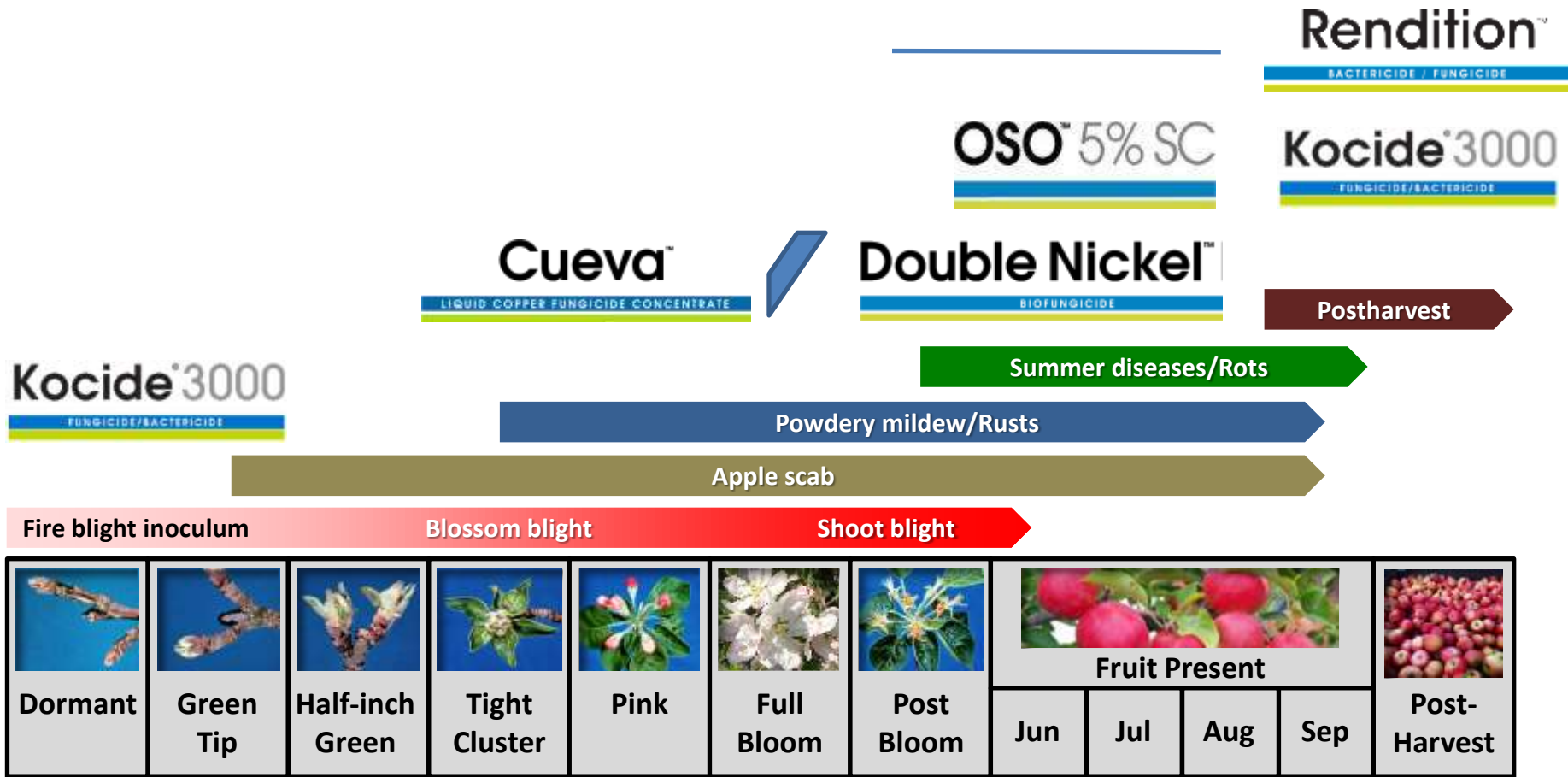
Use in Apples

- Pome fruit diseases controlled include *Alternaria* leaf spot, leaf blotch, powdery mildew, scab (suppression).
- See label- For control of sooty blotch, flyspeck, bitter rot, *Alternaria* rot and suppression of cedar apple rust & white rot.
- Apply as foliar spray in sufficient water to attain thorough coverage of foliage and fruit.
- Can be used in pre-harvest (cover spray) applications, no residue concerns.



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Certis Pome Fruit Fungicides- Complete List



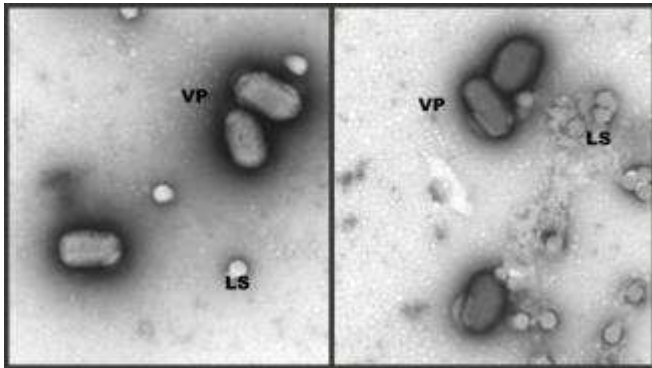
Madex[®] HP

INSECTICIDAL VIRUS

**For Controlling Larvae of
Oriental Fruit Moth
and
Codling Moth**

Madex[®] HP

INSECTICIDAL VIRUS



Electron photomicrograph of Madex Twin OB's

- **Infects and kills codling moth larvae and oriental fruit moth larvae !**
- *Active ingredient: Cydia pomonella granulovirus*
- Time applications to egg hatch, first and second generations.
- Can be used successfully with mating disruption.
- Capable of re-infecting other larvae and building up through time in the field.
- Safe for beneficial insects, OMRI and NOP approved for organic production, good addition for IPM programs.
- **Recommend 0.5 fl oz/acre when mixed with conventional insecticide, 1.0-1.5 fl oz/acre when used as a stand or with mating disruption.**
- **Make at least two applications of Madex HP per OFM or CM generation**

See Us at Booth # 79

H. Brett Highland, PhD.

Certis USA, Product Development Manager, Eastern US

bhighland@certisusa.com

941.484.4523 Off.

941.492.1243 Cell

Judy Collier

jcollier@certisusa.com

Certis USA Sales Manager, Mid Atlantic, NE US

3028.542.4665

Or Visit www.certisusa.com

