Belay
Insecticide

™
UPDATE

- Neonicotinoid
- 2.13 SC
- Systemic when soil applied, locally systemic and translaminar when applied foliar
- Does not leach when soil applied
UPDATE

• Belay (clothianidin) currently labeled for use on potatoes, brassicas, cotton, cranberry, cucurbits, fruiting vegetables, grape, leafy vegetables, peach, pome fruit, soybean, tree nuts, and tuberous and corm vegetables (sweet potatoes)

• Soil and/ or foliar applications
UPDATE

- Aerial label for potatoes, soybeans, and cotton
- Rainfast in 3 hours
NEW LABELS FOR BELAY

- Strawberry, Okra, and Citrus - 3rd quarter of 2012
- Cherry and Plum - 4th quarter of 2013
USE RATES

• Vegetables
  Soil - 9 to 12 fl oz/ A
  Foliar - 3 to 4 fl oz/ A

• Grapes
  Soil - 6 to 12 fl oz/ A
  Foliar - 2 to 6 fl oz/ A
USE RATES

• Peach
  Foliar – 3 to 6 fl oz/A

• Pome Fruit
  Foliar – 4 to 12 fl oz/A
USE RATES

• Potatoes
  Soil - 6 to 12 fl oz/ A
  Foliar - 2 to 3 fl oz/ A
  Seed Treatment - 0.4 to 0.6 fl oz/ cwt

• Tree Nuts
  Foliar - 3 to 6 fl oz/ A
USE RATES

- **Tuberous and Corm Vegetables**
  - Foliar – 2 to 3 fl oz/ A
  - Soil – 9 to 12 fl oz/ A
PHI ’S

- Vegetables - 21 days
- Grapes - 30 days (soil), 0 days (foliar)
- Peach - 21 days
- Pome Fruit - 7 days
- Potatoes - 14 days
PHI’S

- Tree Nuts - 21 days
- Tuberous and Corm Vegetables - 14 days
INSECTS CONTROLLED

- Aphids
- Colorado Potato Beetle
- Flea Beetles
- Japanese Beetles
- Leafhoppers
- Leafminers
- Thrips (foliar)
- Whiteflies (suppression)
INSECTS CONTROLLED

• Bean Leaf Beetle
• Cucumber Beetle (spotted and striped)
• Exotic White Grub and White Grubs
• Harlequin Bug
• Squash Bug
• Stink Bug (brown, green, southern green, brown marmorated)
• Wireworms
Wireworm Control in Sweet Potatoes

PPI treatments applied 5/20
2nd cultivation treatments applied 6/15
Demo conducted by Brookhill Farms, Angier, NC
White Grub Control in Sweet Potatoes

- PPI treatments applied 5/20
- 2nd cultivation treatments applied 6/15
- Demo conducted by Brookhill Farms, Angier, NC
Wireworm and White Grub Control in Sweet Potatoes

- PPI treatments applied 5/20
- 2nd cultivation treatments applied 6/15
- Demo conducted by Brookhill Farms, Angier, NC
CHATEAU

BLUEBERRIES

• New Label:

  a) Chateau applied between budbreak and final harvest with a 7-day PHI
FUTURE LABELS EXPECTED

• Caneberries (September 2012)
DANITOL

UPDATE

• Pyrethroid

• 2.4 EC

• Unique pyrethroid in that it will control mites along with other insects.

• Rainfast in 4 hours
NEW 2(ee) LABELS

- Brown Marmorated Stink Bug added to bushberries, cotton, cucurbits, fruiting vegetables, grape, head and stem brassica, pea, pome fruit, stone fruit, and strawberry.
NEW 2(ee) LABELS

• Spotted Wing Drosophila added to bushberries, pome fruit, stone fruit, strawberry, grapes, and fruiting vegetables.
UPDATE

• Bt
• Registered on over 200 crops
• Labeled on over 55 species of worms
• No cross-resistance with any insecticide
UPDATE

• No residue concerns
• Dipel DF is OMRI approved
• Dipel ES is not OMRI approved
• Control pyrethroid resistant worms
TECHNICAL INFORMATION

• Fluopicolide
• New class of chemistry (acylpicolide)
• Novel and unique mode of action
• Preventative and curative action
• 4 SC
TECHNICAL INFORMATION

• Controls oomycete diseases
  - downy mildew
  - Phytophthora
  - Late blight
TECHNICAL INFORMATION

• Translaminar
• Systemic movement via the xylem
• No known cross resistance
• Excellent crop safety
• Use rate of 3 to 4 fl oz/ A
TECHNICAL INFORMATION

- Rainfast in 2 hours
- Can be applied to the soil or foliar
- Can be applied by chemigation
- Can be applied through drip irrigation (new label in 2010)
TECHNICAL INFORMATION

• Packaged in 1 quart containers

• FRAC Code 43
**TECHNICAL INFORMATION**

- Need to practice excellent resistance management with Presidio.
  - Presidio has to be tank mixed with another fungicide, i.e., Bravo, Manzate
  - One consecutive application of Presidio is allowed
APPROVED LABELS

- Grapes
- Fruiting Vegetables
- Leafy Vegetables
- Cucurbits
- Head and Stem Brassicas
- Bulb Vegetables
- Root Vegetables (except carrot, potato)
NEW LABELS COMING

- Potatoes and Carrots (March 23, 2011)
- Reduced Rotational Restriction to Wheat (March 23, 2011)
- Mustard Greens (March 23, 2011)
- Remove Corn Rotational Restriction (January 2012)
NEW LABELS COMING

• Remove Soybean Rotational Restriction (4th Quarter 2013)
UNTREATED CONTROL
TANOS 8 OZ/A + MANZATE 1.5 LB/A ALTERNATED WITH PREVICUR FLEX 1.2 PTS/A + BRAVO 2 PTS/A
PRESIDO 4 FL OZ/A + BRAVO 2 PTS/A (FIRST 2 APPLICATIONS) FB
TANOS 8 OZ/A + MANZATE 1.5 LB/A FB PREVICUR FLEX AT 1.2
PTS/A + BRAVO AT 2 PTS/A
Phytophthora Control in Bell Peppers

Marketable Yield (lbs/Plot)

TREATMENT

- Presidio 3 oz/A
- Ridomil Gold 1 pt/A
- UTC

---

42
Phytophthora Control in Bell Peppers

UNTREATED CONTROL

PRESIDIO 3 OZ/A
TECHNICAL INFORMATION

• Herbicide
• Applied postemergence
• Annual and perennial grass control
• Use rate of 9 to 16 fl oz/ A
• Add a NIS at 1 qt/ 100 gallons spray
LABELS

• Numerous vegetable and agronomic crops
TECHNICAL INFORMATION

• Neonicotinoid
• 70 SG
• Highly mobile in plants
• Can be applied to the soil, through drip irrigation, or foliar.
LABELS

- Cucurbits
- Fruiting vegetables
- Head and stem brassicas
- Leafy vegetables
- Potatoes
VENOM

LABELS

• Grapes
CUCURBITS, HEAD AND STEM
BRASSICAS, FRUITING VEGETABLES,
LEAFY VEGETABLES

• Foliar
• Soil
• PHI (soil) - 21 days
• PHI (foliar) - 1 day
POTATOES

- Foliar
- Soil
- PHI (foliar) - 7 days
VENOM

GRAPES

• Foliar
• Soil
• PHI (soil) - 28 days
• PHI (foliar) - 1 days
## INSECTS CONTROLLED

<table>
<thead>
<tr>
<th>SOIL APPLIED</th>
<th>FOLIAR APPLIED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thrips</td>
<td>Colorado Potato Beetle</td>
</tr>
<tr>
<td>Aphids</td>
<td>Cucumber Beetle</td>
</tr>
<tr>
<td>Whiteflies</td>
<td>Grasshopper</td>
</tr>
<tr>
<td>Colorado Potato Beetle</td>
<td>Flea Beetle</td>
</tr>
<tr>
<td>Leafhopper</td>
<td>Harlequin Bug</td>
</tr>
<tr>
<td>Flea Beetle</td>
<td>Leafhopper</td>
</tr>
<tr>
<td>Mealybug</td>
<td>Mealybug</td>
</tr>
<tr>
<td></td>
<td>Squash Bug</td>
</tr>
<tr>
<td></td>
<td>Stink Bugs</td>
</tr>
<tr>
<td></td>
<td>Whiteflies</td>
</tr>
</tbody>
</table>
UPDATE

• Registered on over 200 crops
• Labeled on over 55 species of worms
• No cross-resistance with any insecticide
• No residue concerns
• Xentari is OMRI approved
UPDATE

- Excellent armyworm (fall, beet, southern, yellow-striped) control
TECHNICAL UPDATE

• Miticide
• Activity on eggs (ovicidal) and nymphs
• No adult knockdown but sterilizes the females
• Long residual
APPROVED LABELS

• Melons (ground and aerial)
• Cherries
• Strawberries
• Cotton
• Pome Fruit
APPROVED LABELS

- Grapes
- Tree Nuts
NEW LABELS APPROVED

- Cucumbers
- Stone Fruit
- Mint
NEW LABELS EXPECTED

• Caneberry, Squash, and Peppers (2nd Quarter of 2011)