Update on Reevaluation of Neonicotinoids

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Outline

- Background
- Types of products
- Data requirements
  - Field Studies
  - Acute toxicity studies
- Project progress to date

Photo obtained from Scientific American Web site.

Background

- Initiated on February 26, 2009
  - Adverse effects data submitted by Bayer CropScience for imidacloprid
- Reevaluation includes:
  - Nitroguanidine-substituted neonicotinoids: imidacloprid, thiamethoxam, dinotefuran, and clothianidin

Pesticide Products Include

- Universe includes 293 products from 57 registrants.
- Excluded certain products based on use patterns.
- List of products are available on DPR's Web site.

Field Studies

Imidacloprid

Crop/Crop Groups to be Sampled:

- ~~Almonds~~
- Citrus
- Cotton
- Cucurbits
- Fruiting Vegetables
- Pome fruits
- Strawberries
- Stone fruits

Photo obtained from Operation Pollinator Protection presentation to U.S. EPA 1/11/11

Field Studies

Thiamethoxam

Crop/Crop Groups to be Sampled:

- Citrus
- Cucurbits
- Fruiting Vegetables
- Pome fruits
- Strawberries

Photo obtained from Syngenta presentation to DPR 2/15/12

Field Studies

Dinotefuran

Crop/Crop Groups to be Sampled:

- Fruiting Vegetables
- Cotton
- Cucurbits

Field Studies

Clothianidin

Crop/Crop Groups to be Sampled:

- Pome fruits
- Cucurbits

Photo obtained from Valent U.S.A. presentation to DPR 6/1/12

Acute Toxicity Studies

- Acute Dietary Concentration (LC_{50} studies)
  - Brood (larvae)

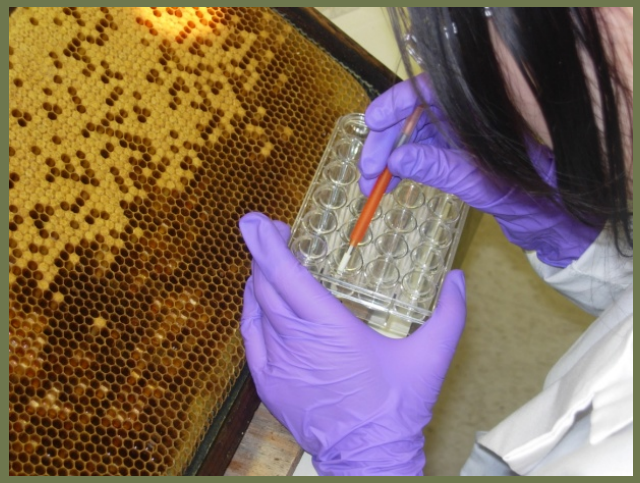

Photo obtained from Syngenta presentation to DPR 2/15/12

Project Progress to Date

- Residue studies received
- Larva acute toxicity studies received
- Ongoing dialogue with U.S. EPA and PMRA Health Canada

Imidacloprid – Project Status

- Field studies
  - Cotton and fruiting vegetable (tomato): Received May 2011. Did not investigate worse case. Received new protocol May, begin March 2013.
  - Citrus: Received May 2011 and April.
  - Cucurbit and strawberry: ~October
  - Pome and stone fruit: Received protocol May, begin April 2013

Imidacloprid – Project Status *continued*

- Larva acute toxicity studies
  - Final report received 3/21/12
  - Pending scientific review

Thiamethoxam – Project Status

- Field studies
  - Fruiting vegetable (tomato): Received January
  - Cucurbit: Summary data end of 2012.
  - Pome and strawberry: Requesting waiver due to limited use.
  - Citrus: Initial scoping site identification performed. Protocol forthcoming.
- Larva acute toxicity studies
  - Final report received 1/24/12
  - Pending scientific review

Dinotefuran – Project Status

- Field studies
  - Cotton: Received March
  - Cucurbits and fruiting vegetables: January 2010, provided existing literature for consideration
- Larva acute toxicity studies
  - Provided report on effects to hive 3/7/12
  - Pending scientific review

Clothianidin – Project Status

- Field studies
  - Cucurbit (pumpkin): Submitted protocol May, initiated June. Interim updates with final report end 2014.
- Larva acute toxicity studies
  - Final report received 2/21/12
  - Pending scientific review

Conclusion

- Background
- Types of products
- Data requirements
  - Field Studies
  - Acute toxicity studies
- Project progress to date

Photo obtained from Scientific American Web site.