Biopesticides Registration Improvement Course

Non-Conventional Pest Control Products - Classification

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Overview

- Sources of Information for Non-Conventional Pest Control Products, including Microbials, Pheromones and other Semiochemicals
- Classification Process
- Comparison with U.S. EPA Approach
- Areas for Improvement

Sources of Information

- Guidelines for the Registration of Non-Conventional Pest Control Products, PRO2010-06
  - Consultation period closed at the end of February 2011
  - Directive to be published in 2011-2012
- Guidelines for the Research and Registration of Products Containing Pheromones and Other Semiochemicals, PRO2002-02

Sources of Information

- Guidelines for the Registration of Microbial Pest Control Agents and Products, DIR 2001-02

Classification of Non-Conventional Pesticides

- Classification ≠ Designation
  - Outcome of classification is to determine the MOSP[1] class (timelines, fees); eligibility for review under these guidelines
  - Products must have certain characteristics
  - Once a classification is made, data requirements are determined as appropriate
    - Flexibility in addressing information requirements

1 Management of Submissions Policy

Classification *Non-Conventional*

- Products eligible for consideration under these guidelines must have some, but not necessarily all, of the following characteristics:

Classification *Non-Conventional*

- Low inherent toxicity to non-target organisms.
  - Products with low inherent toxicity to humans and other non-target organisms would be expected to have minimal environmental and health risks even if exposure is extensive.
  - Substances with chronic toxicity, carcinogenicity, genotoxicity, neurotoxicity, reproductive/developmental effects, or that metabolize into compounds of toxicological concern are not eligible for review under this proposal

Classification *Non-Conventional*

- Low potential for their use to result in significant human or environmental exposure.
  - When exposure is negligible, risks may be minimal even if the product has some inherent toxicity
- Not persistent in the environment.

Classification *Non-Conventional*

- Already widely available to the public for other uses, with a history of safe use under conditions posing equivalent potential for exposure to humans and the environment.
- Non-toxic mode of action.
    - Pesticidal action that is not the result of toxicity to the target organisms, e.g., products that work by attracting, repelling, desiccating, or smothering pests

Classification *Non-Conventional*

- Unlikely to select for pest resistence.

Substances eligible for review under this guideline could include:

- Food items, preservatives or additives (e.g., crushed garlic, garlic powder, table salt, citric acid)
- Plant extracts and oils (e.g., vegetable and mineral oils)
- Commodity chemicals (e.g., acetic acid)
- Fertilizer or other plant growth supplements commonly used in the agricultural sector (e.g., mineral salts)
- Inert materials (e.g., diatomaceous earth)

Who determines if a substance meets the characteristics of a Non-Conventional Pest Control Product:

- Screening Officers identify when an applicant is requesting eligibility for review under PRO2010-06 or when clarification is needed
- Committee of representatives from EAD, HED, CES, VSAD, RD, PCRAD
- Rationale presented and Committee makes determination

Definition of Pheromones and Semiochemicals

Arthropods only

A pheromone is a semiochemical produced by individuals of a species that affects the behaviour of other individuals of the same species.

A semiochemical is a message-bearing substance produced by a plant or an animal or a synthetic analogue of that substance which invokes a behavioural response in individuals of the same or other species.

Comparison with U.S. EPA Approach

Non-Conventionals

- PMRA considers U.S. EPA classification for biopesticides

- PMRA's definition could also include inerts, inorganic substances, unique products where tiered data requirements could also apply

Areas for Improvement

Non-Conventionals

- Rationales for how an active ingredient meets the classification criteria
  - Quality of rationales is variable and could be improved
  - Include details of the use pattern, label claims, and as much scientific evidence as possible
  - Present a history of other uses of the substance


Questions?