Biochemical Classification Committee
& Classification of Biochemical Active Ingredients

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U. S. EPA/OPP/BPPD
Chair, Biochemical Classification Committee
Biochemical Classification Committee

- BPPD created as Pilot Project in 1994
- Became permanent Division of OPP in 1995
- Bring safer pesticide products into the market place and to encourage the adoption of these safer, reduced risk products and related IPM practices
Biological Pesticides (40 CFR §180.65)

- unique modes of action
- low use volume
- target species specificity, or
- natural occurrence
Biochemical Pesticides [40 CFR §180.65(a)]

- semiochemicals
- plant and insect growth regulators, and
- enzymes
Biochemical Classification Committee

“When necessary the Agency will evaluate products on an individual basis to determine whether they are biochemical or conventional chemical pesticides”

40 CFR §180.65(a)

Necessary to distinguish between biochemicals and conventionals so that they can be reviewed in the appropriate Division
Biochemical Classification Criteria

- Generally are naturally-occurring substances
- Non-toxic mode of action against the target pest
**Biochemical Classification Criteria**

A synthetic active ingredient can be classified as a biochemical if it is structurally similar, and functionally identical to, a naturally-occurring active ingredient.
Biochemical Pesticides

- “Naturally-occurring” does not presume a non-toxic mode of action

- “Non-toxic mode of action against target pest” does not presume a lack of toxicity to humans and non-targets
Non-Toxic Modes of Action

- Growth/developmental changes (PGRs, IGRs)
- Lures/Attractants/Repellents (Irritants)
- Suffocation
- Dessication
- Coatings
- Systemic Aquired Response (SAR)-Induction
Other Criteria

- Potential Effects on Non-target Organisms
- No or low Persistence in Environment
- Low application rates/volumes
- Efficacy
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Classification Process

Receipt of Information

Preliminary Review and Summary

Full Committee Review

Division Management Concurrence

Letter to Applicant with Explanation of Decision
Information/Data Needed for a Successful Classification (I)

- Product Chemistry
  - Identify the active ingredient(s)
  - Structure
  - CAS No. (if available)
  - Any other physical/chemical data
- Evidence for Natural Occurrence
- Evidence for non-toxic mode of action
Information/Data Needed for a Successful Classification (II)

- Target Pest
- Method, Rate, Time of Application
- Human Health Data/Information
  - Publically-available technical literature
  - MSDS
  - FDA GRAS Status
- Ecological Effects
Biochemical Classification Committee

Membership

Biochemical Pesticides Branch

- Biologist
- Chemist
- Environmental Scientist
- Microbiologist
- Toxicologist

Registration Division
Antimicrobials Division
Biochemical Classification Committee

Current Members

BPB:
- Russell S. Jones, Chair
- Freshteh Toghrrol
- Andrew Bryceland
- Roy Sjoblad
- Roger Gardner

RD: Carl Grable
AD: As assigned
Biochemical Classification Committee

QUESTIONS?