



NAFTA Technical Working Group on Pesticides  
Grupo de Trabajo Técnico del TLCAN sobre plaguicidas  
Groupe de travail technique de l'ALENA sur les pesticides

# Biochemical Classification Committee & Classification of Biochemical Active Ingredients

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**Biologist**

**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 Acquired Response (SAR)-  
Induction



## *Other Criteria*

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



# *Biochemical Classification Committee*

## 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 Toghrol
- Andrew Bryceland
- Roy Sjoblad
- Roger Gardner

RD: Carl Grable

AD: As assigned



# *Biochemical Classification Committee*

***QUESTIONS?***

