

# APVMA Chemical Review Program

## System to Prioritise Nominated Chemicals for Review 2008

Agricultural and veterinary chemicals nominated for review by the APVMA are given an order of priority according to the level of concern that led to the nomination. This priority is based on advice received from APVMA's external advisory agencies: the Australian Government Department of the Environment, Water, Heritage and the Arts and the Office of Chemical Safety, as well as from the APVMA's own experts in residue chemistry and target animal/plant safety and efficacy. Chemicals prioritised for review are listed in the **Priority Candidate Review List (PCRL)**

The APVMA and its external advisory agencies use a scoring process to prioritise nominated chemicals for review, based on key criteria of concern including, human health (toxicology & occupational health and safety), environment, residues & trade, target crop & animal safety and efficacy. The priority for each chemical nomination is determined by assessing it against each of the criteria and evaluating the outcomes. The **PCRL** provides an indication of the chemicals with the higher levels of concern or chemicals which have been assessed as of concern by multiple agencies.

### HUMAN HEALTH (Toxicology and Occupational Health and Safety)

Chemicals that are nominated for review are assessed for their effect on human health against the following criteria:

1. Special Concerns
  - Demonstrated or potential adverse effects in humans
2. Potential Acute and Chronic risk
  - Scheduling of the chemical
  - Exposure to the chemical from food
3. Regulatory action taken overseas (eg Canada, EU, UK, USA)
4. Toxicity
  - Non-hazardous Substances
  - Hazardous substances
  - Other toxicity (health hazard)
5. User Exposure
  - Industrial exposure in Australia
  - Form of concentrated chemical (includes formulated products)
  - Exposure to working strength chemical (mixing/loading/application)
  - Frequency of Application
  - Post application Exposure (handling of treated crops & animals)

## **ENVIRONMENT**

Chemicals that are nominated for review are assessed for their effect on the environment against the following criteria:

1. Environmental Exposure
  - Form and method of application
  - Volume of use (kg per annum)
  - Scale of use (ha per annum)
  - Persistence (soil or aquatic half life)
  - Bioaccumulation potential
  - Mobility/Leaching Potential
2. Environmental toxicity
  - Aquatic toxicity
  - Terrestrial bird/mammalian toxicity
  - Terrestrial plant toxicity
  - Other non-target organisms
3. Sensitivity of receiving environment.
4. Demonstrated adverse effects
5. Regulatory action taken overseas on environmental grounds (eg USEPA, CEC).

## **RESIDUES and TRADE**

Chemicals that are nominated for review are assessed for their impact on residues and trade against the following criteria:

1. Absence of MRLs
2. Reported incidents of residue violations
3. Reported incidents of adverse effects on trade
4. Compatibility with other countries' MRLs
5. International regulatory action
6. Residues resulting from use according to the label and the appropriateness of existing directions (e.g. hydroponics vs. field use)

Note: Dietary exposure is considered under human health

## **EFFICACY**

1. Lack of Efficacy (Confirmed report/s of serious incident/s of chemical failure, substantial incidents of chemical failure)

## **TARGET ANIMAL and CROP SAFETY**

1. Reported incidents of phytotoxicity and adverse interactions with target crops.
2. Reported incidents of adverse effects to treated target animals.