

Information on the insecticide Fipronil Australian Plague Locust Commission (APLC)

- Fipronil (tradenames, Adonis 3UL and Regent 200SC) is an insecticide for control of locusts and grasshoppers. The APLC began using Adonis 3UL (the ULV formulation suitable for aerial application) operationally in 2000. It has proven to be highly effective when applied by aircraft using a wide interval application technique (spray runs spaced at intervals of 200 to 500 m).
- Fipronil is a phenyl pyrazole, a new class of pesticide that acts on the insect nervous system. It kills by contact or ingestion. Fipronil is highly active against locusts and grasshoppers which means that very low doses (0.3-1 g a.i./ha) can be used. By comparison, organophosphorous pesticides used for locust control are applied in the range of 250-500 g a.i./ha.
- Fipronil is moderately toxic to mammals and in its technical form is slightly more toxic than the organophosphorous pesticide fenitrothion. However, the low doses of fipronil used by the APLC minimise the risk to terrestrial vertebrates. The ULV formulation contains 3 g a.i./L and the suspension concentrate 200 g a.i./L compared with at least 1,000 g a.i./L for organophosphorous pesticides.
- Fipronil is highly toxic to bees, termites and aquatic invertebrates such as yabbies. While it is unlikely to affect fish at the registered dose, it must not be applied near waterways. The APLC will not target areas where significant numbers of termite mounds are evident. The APLC also uses a 1.5 km no spray zone between a target treated by aerial spraying and any sensitive areas **downwind**, eg. dwellings, dams, waterways, organic production.
- Fipronil is more persistent than the organophosphorous pesticides. It will kill locusts invading sprayed areas for up to a week after application but this also means that grazing stock may be exposed to it for longer periods. After consumption by cattle it remains in the fat longer than the organophosphorous compounds, breaking down with a half-life of about 7 days. Residues in cattle are not a concern if fipronil is applied correctly and **withholding periods from grazing strictly abided by**.
- Fipronil has been registered by the Australian Pesticides and Veterinary Medicines Authority (APVMA) as Adonis 3UL (ULV formulation) & Regent 200 SC (water miscible formulation) and can only be used to treat locusts feeding on pasture or sorghum (forage and grain). **It is not registered for use on cereal crops.**
- The current (2006) registered label lists the following **withholding periods** and/or **slaughter interval**:
 - **Pasture: Do not graze or cut for stock food for 14 days after application.**
 - **Sorghum (forage & grain): Do not harvest, graze or cut for stock food for 14 days after application.**
 - **Livestock: Withhold stock from slaughter for 21 days after application, where stock were present in crop or pasture at time of application.**

ALWAYS CHECK AND ADHERE TO THE REQUIREMENTS OF THE REGISTERED LABEL OR OFF-LABEL PERMIT FOR ALL AGRICULTURAL CHEMICALS.