Managing loss of AmiTron in runoff

- Adopt weed control strategies so that risk of extreme rainfall events soon after application of herbicides is minimised e.g. utilise UV stable products over cane trash immediately or very soon after harvest in early season harvest rounds when risk of extreme rainfall is much reduced.
- Do not spray if soil is saturated.
- Do not spray if heavy rainfall or irrigation is expected or planned within 48 hours.
- Do not irrigate for at least two days after application if possible.
- Incorporate soil management processes so that compaction is prevented (e.g. controlled traffic). Compacted soil increases surface runoff significantly.
- In furrow (flood) irrigation systems, consider very early timings of banded applications centred over rows. This means that the AmiTron might not be exposed to the very heavy water flows with inundation of the flooded inter-rows, but would still provide excellent pre-emergent weed control within the band over the rows.
- In irrigated systems, optimise watering so that runoff from paddocks is negligible.
- Where possible, retain all irrigation tailwater on-farm.
- If volume of the first irrigation after application can be manipulated, a light irrigation is preferable to a heavy irrigation. This would move AmiTron off the surface into the shallow soil layers and allow soil adsorption processes to start to bind the herbicide in the weed root zone.

Managing loss of AmiTron through leaching

Some movement of the product through soil with water is necessary to get the herbicide into the layer of soil where weed seeds germinate. Managing this movement to prevent excess leaching out of the root zone involves understanding soil type (particularly texture), and then adjusting timing and rates of application so risk of excessive water flows soon after application is minimised.

- Avoid applications on very light soils
- Do not spray if soil is saturated
- Avoid risk of heavy precipitation or irrigation soon after application
- Use the lowest feasible rate
- In furrow (flood) irrigation systems, consider banded applications so that the flooded inter-row is not treated with AmiTron

Management of headlands, drains and buffers

Managing water flows after runoff exits field is also important in reducing the contamination of natural waterways. Slowing water flows can allow time for processes such as degradation, reabsorption into soil and uptake into covering vegetation, all of which can significantly reduce the quantity of contaminant moving from fields into natural systems.

The following can help slow and reduce runoff:

- Slope adjustments and other erosion control practices
- Vegetation near the site of application
- Conservation tillage systems that leave vegetation or crop residue
- Buffer zones and vegetative filter strips with dense cover

Management of off-site movement in spray drift

The AmiTron label has legally binding restraints regarding spray drift. There are also restraints on the label for slope and certain no-spray windows. Always check a current label for restraints and recommendations.

AmiTron and herbicidal effects on marine reef organisms

As a herbicide, AmiTron has inherent potential to affect plant life in many environments, making it important to minimise off-target movement of the compound. In the sugarcane regions in Queensland, the rivers flow toward the Great Barrier Reef lagoon so this product has the potential to be a hazard to marine flora such as seagrass and also corals. It belongs to the PSII activity class, some of which (i.e. diuron) have been shown to exhibit toxic effects to this marine flora.

Recent studies by the Australian Institute of Marine Science have shown that not all herbicides belonging to the PSII activity class pose the same risk. AmiTron has been shown as much less of a risk to seagrasses and corals than other PSII herbicides such as diuron and hexazinone (up to ten fold less of a risk).

However the objective should still be to reduce risk of any contamination off-target by using sensible practices.

The sugar industry Best Management Practice Guidelines should be reviewed for current advice prior to using AmiTron in any crop.

amitron.com.au

Always refer to the label for complete details

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