



MAURITIUS SUGAR INDUSTRY RESEARCH INSTITUTE

Recommendation Sheet

November 2008, No. 164

New herbicide treatments and adjuvant for managing weeds in sugar cane

Several new herbicides have been evaluated by MSIRI during the last five years to widen the choice of treatments and to enable sugar cane growers to select the most cost-effective ones. Emphasis has been laid on screening more treatments to satisfy different weed management strategies including that of delaying the first treatment until start of the critical period of weed competition. Furthermore, there was also a need to test treatments that would control almost all emerged weeds, provide a good residual activity and be tolerated by young cane shoots.

Some of the new herbicides have also been tested to replace those currently used and which are no longer approved by the EU. As a result of our tests, the following new herbicide treatments are being recommended to complement previous ones.

Recommendations

1. Pre-emergence of weeds

Herbicide	Dosage rate		Particularities of the new treatments
	per hectare	per arpent	
Dinamic Ace*	5.25 L	2.2 L	<ul style="list-style-type: none"> Broad-spectrum control of dicots and grasses including <i>Digitaria horizontalis</i>. Relatively long residual activity (14 -16 weeks).
Lumax**	4.0 – 4.5 L	1.7 – 1.9 L	<ul style="list-style-type: none"> More effective where broad-leaved weeds predominate. Higher rate provides fairly longer residual action (12 – 14 weeks).
Krismat***	2.4 kg	1.0 kg	<ul style="list-style-type: none"> To be applied in pre-emergence of cane. Broad-spectrum control including dicots, grasses and sedges (e.g. <i>Cyperus rotundus</i>). Relatively long residual activity (14 – 16 weeks).

* amicarbazone + acetochlor (0.2 + 0.686 kg a.i. L⁻¹)

** mesotrione + s-metolachlor + terbuthylazine (0.0375 + 0.375 + 0.125 kg a.i. L⁻¹)

*** trifloxysulfuron + ametryn (0.0185 + 0.7315 kg a.i. kg⁻¹)

Published by the MAURITIUS SUGAR INDUSTRY RESEARCH INSTITUTE



454 1061, 466 8800, 250 1243 - <http://www.msiri.mu> - ✉ spd@msiri.intnet.mu

2. Early post- or post-emergence of weeds

Herbicide	Dosage rate		Particularities of the new treatments
	per hectare	per arpent	
Dinamic Extra L 1.2 *	5.0 kg	2.1 kg	<ul style="list-style-type: none"> • Good knockdown of most weeds with some weaknesses on <i>Paspalum</i> spp. • Tolerated by all cane varieties. • Fairly long residual activity (12 – 14 weeks)
Dinamic Extra H 1.6 **	5.5 kg	2.3 kg	<ul style="list-style-type: none"> • Very good knockdown of most weeds with some weaknesses on <i>Paspalum</i> spp. • Restricted to tolerant cane varieties. • Fairly long residual activity (12 – 14 weeks)
Lumax + 2,4-D amine salt	4.0 – 4.5 L + 3.0 L	1.7 – 1.9 L + 1.25 L	<ul style="list-style-type: none"> • Effective where broad-leaved weeds predominate. Poor control of <i>D. horizontalis</i> and <i>Paspalum</i> spp. • Higher rate provides fairly longer residual action (12 – 14 weeks).
Krismat + hexazinone (750 WG)	2.0 kg + 0.8 kg	0.8 kg + 0.3 kg	<ul style="list-style-type: none"> • Broad-spectrum control including various grasses and <i>Cyperus rotundus</i>. • Fairly long residual activity (12 – 14 weeks)

* amicarbazone + ametryn + MCPA (0.21 + 0.24 + 0.28 kg a.i. kg⁻¹)

** amicarbazone + ametryn + MCPA (0.19 + 0.29 + 0.255 kg a.i. kg⁻¹)

Note: An adjuvant should be added to all above post-mergence treatments

3. New adjuvant Complement Super

A new adjuvant, **Complement Super** (Break Thru S 233) has been tested as an alternative to Complement (recommended together with herbicide Servian (halosulfuron) in 1996), which is no longer available due to presence of solvent nonyl-phenol in the formulation. **Complement Super** is a silicone surfactant which reduces surface tension of water significantly, thus improving uptake and rainfastness. Trials carried out in sugar cane have revealed **Complement Super** to be as effective as Complement when used with herbicide Servian.

Complement Super is recommended at 0.2 litre per hectare (0.08 litre per arpent).

Your attention is drawn that the guideline and/or advice is restricted for the purpose for which it is recommended only.

MSIRI Board shall not be responsible for any act that may arise out outside the purview of these guidelines.