

#### Mode of action

GROUP 5 27 HERBICIDE

Palmero TX is a co-formulation of terbuthylazine (Group 5) and isoxaflutole (Group 27). Terbuthylazine is a relatively new triazine herbicide for the Australian sugar industry. Triazines control target weeds by inhibiting a specific step in photosynthesis. Isoxaflutole inhibits an enzyme involved in photosynthesis but at a different stage of the process. Group 5 and Group 27 herbicides are often synergistic due to their combined effects on inhibiting photosynthesis in target weeds.

# Ideal rotation option

It is important that growers use a range of management strategies to control weeds. Rotating between herbicides with different modes of action reduces selection pressure for herbicide resistance. Palmero TX is an ideal rotational partner for Bobcat® i-MAXX SG (Group 2/5) and Bobcat® Combi (Group 5) for sustainable weed control in sugarcane.

# Efficacy data

Trials conducted in Australia between 2015 and 2019 (Figures 1 to 3, overleaf) demonstrate that Palmero TX provides equivalent or superior control when compared to industry standard tank-mixes of key grasses and broadleaf weeds up to 90 days after treatment. Suppression of key weeds can occur at the higher Palmero TX rates beyond 90 days after treatment (Figure 2, overleaf). All treatments were applied with 1.6 L/ha Spraytop® 250 as a directed spray.

## At a glance

Long-lasting, broad spectrum weed control	Controls a range of key grasses and broadleaf weeds in plant and ratoon cane for up to three months.
Flexible timing	Wide application window in plant and ratoon cane.
Convenient formulation	Combines two active ingredients into the one, easy-to-use water dispersible granule formulation, reducing the need to tank-mix to broaden the weed spectrum.
Rotational option	An ideal rotational option with Bobcat® i-MAXX SG and Bobcat® Combi for sustainable weed control in sugarcane.



# Palmero® TX

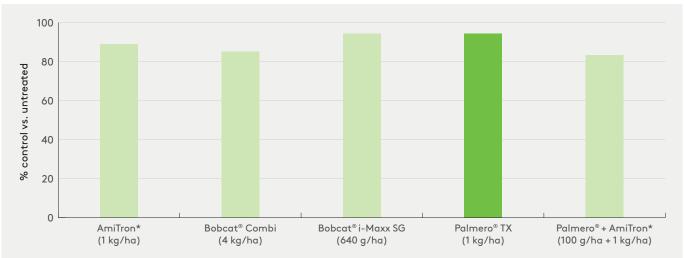


Figure 1: Efficacy of herbicides on the control of green summer grass (*Brachiaria subquadripara*) 90 days after application in plant cane applied at the out of hand stage. (Proserpine, Qld, 2016, Trial number AD-AU-16-H02-3)

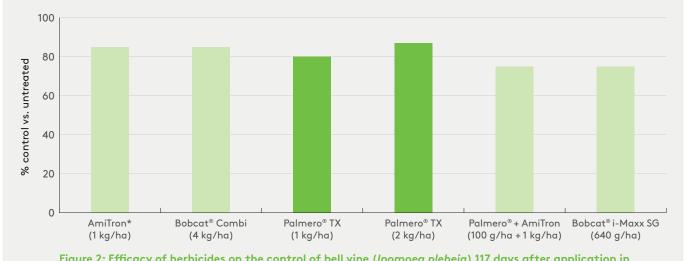


Figure 2: Efficacy of herbicides on the control of bell vine (*Ipomoea plebeia*) 117 days after application in plant cane cv. Q211 applied at the out of hand stage. (Mackay, Qld, 2016, Trial number AD-AU-16-H02-4)

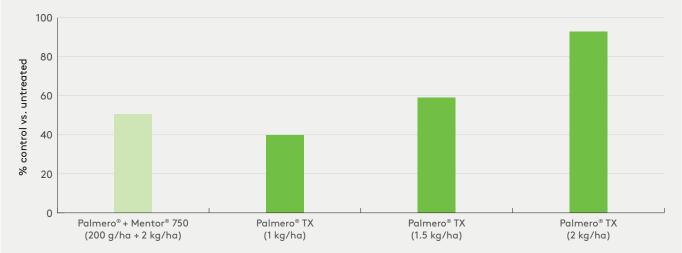


Figure 3: Efficacy of PALMERO TX on blue top (*Ageratum* spp.) 90 days after application in first ratoon cane cv. Q250 applied at the out of hand stage. (Bartle Frere, Qld, 2016, Trial number AD-AU-15-H07-9)

## **Application rate**

Apply Palmero TX at 1 to 2 kg/ha as per the label guidelines for target weeds, soil type and application timing. Where soil types permit, use the higher rates for longer residual control and to broaden the spectrum of weeds controlled or suppressed. DO NOT apply more than 2 kg/ha per year.

## **Application timing**

There are two main use timings for Palmero TX in sugarcane:

#### Directed spray in plant and ratoon cane

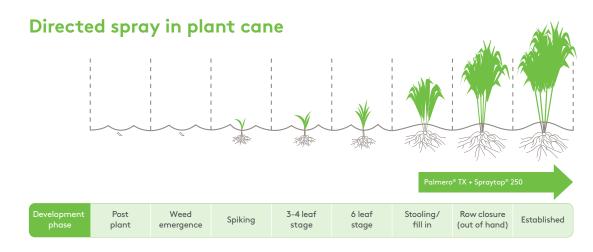
- Apply as a directed inter-row spray (e.g. Irvin leg), full width between rows or as a band treatment after final cultivation and hill formation to a weed-free surface. The inter-row surface should not be disturbed after application.
- Always apply in a tank-mix with paraquat (i.e. Spraytop® 250) to minimise herbicide uptake by the crop and to control any emerged weeds.
- Direct the spray to minimise contact with sugarcane foliage. DO NOT apply to sugarcane less than 0.75 m in height. Contact with sugarcane foliage may cause temporary crop damage, such as chlorosis and/or a reduction in crop biomass or crop height.
- DO NOT apply in the planting furrow in plant cane.

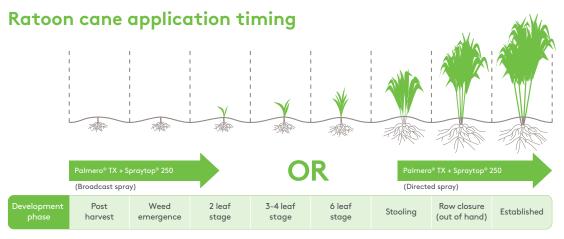
# Broadcast or banded application in rations after harvest

 Apply after harvest and before crop and weed emergence.

#### OR

- Apply as a pre-emergent application between harvest and up to the two-leaf crop stage in a tank mix with Spraytop 250 to control emerged weeds and minimise herbicide uptake by the crop.
- If applying as a band treatment, avoid throwing excessive untreated soil onto the treated band when inter-row cultivating.
- Palmero TX can be applied to ration crops that are burnt before harvest or to crops harvested green with trash-blanketed rations.
- Do not apply to recently burnt stubble/trash or where mill mud was recently applied. After burning or applying mill mud, rainfall or cultivation is required to allow Palmero TX to reach the soil and not be irreversibly bound by ash or mill mud.
- Avoid soil disturbance (e.g. stool splitting) after application
- DO NOT apply to blocks that are to be replanted soon after harvest.





# Palmero® TX

### Spray volume

Apply in a minimum spray volume of 250 L/ha. Use a nozzle size that delivers a coarse to extremely coarse droplets at the selected operating pressure to reduce off-target drift.

## **Crop safety**

Apply Palmero TX with Spraytop 250 where emerged cane is present at the time of application. Only apply Palmero TX with an non-ionic surfactant when tank mixing with paraguat as per the Spraytop 250 label recommendations. Do not apply Palmero TX to areas which have poor drainage or poor root development in the crop. The use of Palmero TX on newly limed soil could cause severe crop damage. Follow the rate guidelines on the label regarding light, medium and heavy soil types.

## Incorporation

Sufficient rainfall or overhead irrigation (20 to 30 mm) is required within two to three weeks of application and prior to weed emergence to wet soil to a minimum depth of 5 cm. Weed escapes may require follow up application of an appropriate herbicide. Weeds buried by cultivation may not be effectively controlled. Heavy rainfall on light soils may cause movement of the herbicide out of the weed seed zone, resulting in reduced weed control.

## Compatibility

Palmero TX is compatible with 2,4-D Amine, Zulu<sup>®</sup> XT, Picoflex® and Spraytop®.

# Crop rotation recommendations

Recropping guidelines are influenced by rainfall, leaching, soil pH and cultivation. Do not include flood or furrow irrigation in the minimum rainfall requirement when considering recropping intervals. Refer to the Palmero TX product label for more information. For crops not listed on the label, do not plant for 24 months after application. A minimum of 500 mm rainfall is also required. A field bioassay is recommended before planting.

## Protection of the environment and non-target plants

- DO NOT apply at the highest rate as a broadcast spray in the South East Queensland region.
- DO NOT contaminate wetlands or watercourses with this product or used containers. After application of Palmero TX, DO NOT irrigate crop to the point of runoff, unless it can be retained on farm.
- DO NOT apply under weather conditions or using spraying equipment that could be expected to cause spray to drift onto nearby susceptible plants/crops, cropping lands or pastures.
- DO NOT apply or drain or flush equipment on or near desirable trees or other plants or on areas where their roots may extend or in locations where the chemical may be washed or moved into contact with their roots.
- DO NOT apply on sites where surface water from heavy rain can be expected to runoff to areas containing, or to be planted with susceptible crops or plants.

## Withholding periods (sugarcane)

Harvest: Not required when used as directed.

Grazing: Do not graze or cut for stock food for eight weeks after application.







ADAMA.COM





