



# HCPSL

Herbert Cane Productivity Services Ltd.



Plane Creek  
Productivity Services  
Limited



**Do not apply unregistered herbicides / pesticides to or within your sugarcane crop.**

*Prices are a guide only and can be used to compare the likely cost of treatment options.*



*There may be other suitable products registered for use in cane in Queensland which are not included in the following document.*

*To view the full list of registered products for use in cane in Queensland refer to the APVMA website.*

**Always read the product label before using any pesticide!**

## **BROADLEAF WEED CONTROL**

(GST inclusive)				
<b>Situation</b>	<b>Herbicide</b>	<b>Rate</b>	<b>Cost/ha</b>	<b>Water Rate L/ha</b>
Broadleaf weeds	Atrazine 900 WG +2,4-D Amicide® Advance 700	1.1 – 2.2kg/ha + 1.2 L/ha		110 – 250
	MCPA 750 +Starane™ Advanced	0.93L/ha + 0.8L/ha		100 – 400
	Starane™ Advanced +2,4-D Amicide® Advance 700	0.8L/ha + 0.8L/ha		100 – 250
Broadleaf weeds + sicklepod	MCPA 750 + Atrazine 900 WG	0.93L/ha + 1.1kg		100 - 250
	2,4-D Amicide® Advance 700 + Starane™ Advanced + Tordon™ 75-D	0.8 L/ha + 0.8 L/ha + 0.8 L/ha		200 +
	Valor®500 WG + Atrazine 900 WG	90g – 120g/ha + 1.5kg/ha		250 +
Hard to kill broadleaves, vines	2,4-D Amicide® Advance 700 + Starane™ Advanced +Atrazine 900 WG	1 – 1.5L/ha 0.8L/ha +1.1 – 2.2kg/ha		100 +
Broadleaf weeds, vines & GSP	Starane™ Advanced +2,4-D Amicide® Advance 700	0.8 L/ha + 0.8L/ha		100 – 250
	Starane™ Advanced +Atrazine 900 WG	0.8L/ha + 1.1 – 2.2 kg/ha		100 – 400
Milkweed + other broadleaf weeds	Starane™ Advanced +Atrazine 900 WG	1.8 L/ha + 2 kg/ha		100 – 400
For sicklepod (Small seedlings)	Tordon™ 75-D + 2,4-D Amicide® Advance 700	0.8L/ha + 0.8L/ha		200 +
For large sicklepod	Tordon™ 75-D + 2,4-D Amicide® Advance 700 + Starane™ Advanced	0.8 - 1.0 L/ha + 0.8 L/ha + 0.8 L/ha		200 +
Broadleaf weeds & some grass (over the top of cane up to the 6-leaf stage or as a directed spray)	Krismat® WG + 2,4-D Amicide® Advance 700	1.5kg/ha +0.8L/ha		150 -250
Grass & broadleaf weeds (Directed application)	Barrage / Bobcat® Combi WG + Gramoxone® 250 (Paraquat 250)	0.9kg/ha + 1.2-1.6L/ha		250 – 350
Grass & broadleaf weeds (Directed application)	Gramoxone® 250 + Diuron 900 DF + 2,4-D Amicide® Advance 700	1.6 L/ha + 0.5 kg/ha + 0.8 L/ha		250 –
Small grass & broadleaf weeds. (May cause phytotoxicity)	Ametrex 800 Atrazine 900 WG + Diuron 900 DF	1.9 kg/ha 1.6 kg/ha +0.5 kg/ha		250 – 400

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## PRE- EMERGENT WEED CONTROL

Add Gramoxone® 250 when weeds are present (Directed application)

GST Inclusive				
Situation	Herbicide	Rate	Cost/ha	Water Rate L/ha
Grasses & Broadleaf weeds	Stomp® Xtra + Atrazine 900 WG	2.2 -3.3L/ha +1.6 – 2.2 kg/ha		200 +
Grasses & Broadleaf weeds Add knockdowns for larger weeds. (Directed application)	Ametrex 800 Atrazine 900 WG + Diuron 900 DF	1.9 kg/ha 1.6 kg/ha +0.5 kg/ha		250 – 400
	Flame® 240 + Atrazine 900 WG	300 – 400ml/ha +2.2 kg/ha		200 +
	Flame® 240 + Stomp® Xtra	300 – 400ml/ha +2.2 lt/ha		200 +
	Balance® 750 WG + Atrazine 900 WG	200g/ha +2.2 kg/ha		250 +
	Balance® 750 WG + Diuron 900 DF	200g/ha +0.5 kg/ha		250 +
	Mentor® WG (Soccer, Tomahawk, Metribuzin) + Balance® 750 WG	0.64kg – 2.0kg/ha + 150 – 200g/ha		250 +
	Mentor® WG (Soccer, Tomahawk, Metribuzin) + Stomp® Xtra	0.64kg – 2.0kg/ha +2.2L/ha		250 +
	Mentor® WG (Soccer, Tomahawk, Metribuzin) +Ametrex® 800 WG	0.64kg – 2.0kg/ha +2 kg/ha		250 +
	Mentor® WG (Soccer, Tomahawk, Metribuzin) +Diuron 900 DF	0.64kg – 2.0kg/ha +0.5 kg/ha		250 +
	Bobcat® i-MAXX SG + Gramoxone® 250	0.50kg – 0.63kg + 1.6L		400 – 600
	Krismat® wg + Diuron 900 DF	1.5 – 2.0kg/ha +0.5 kg/ha		250 – 400
	DUAL GOLD 960 + Atrazine 900 WG	1.45 – 1.8L /ha +1.5 – 2.2 kg/ha		110 +
	DUAL GOLD 960 + Diuron 900 DF	1.45 – 1.8L /ha + 0.5kg/ha		250 - 400
	DUAL GOLD 960 + Ametrex® 800 WG	1.45 – 1.8L /ha + 1.1kg/ha		100 +
	DUAL GOLD 960 + Mentor® 700 WG (Soccer, Tomahawk, Metribuzin)	1.8L/ha +1.5kg/ha		250 +
	Valor®500 WG	350g – 700g/ha		200 +

**Aim for water rates of a minimum of 200 + L/ha for pre-emergence herbicides.**

## INTER ROW WEED MANAGEMENT

GST Inclusive				
Situation	Herbicide	Rate	Cost/ha	Water Rate L/ha
Grasses & Broadleaf weeds <i>Inter row application with a shielded or hooded sprayed or Blair Spray bar. (Directed application)</i>	Weedmaster ARGO 540	1.2 – 5L/ha		80
	Basta	1L – 5L		300 – 500
Grasses & Broadleaf weeds <i>Inter row application with a shielded or hooded sprayed</i>	Basta	1L – 3L		300 - 500
Grasses & Broadleaf weeds <i>Directed application ONLY-Spray Hoods or Blair Spray bar</i>	Diuron 900WG + Daconate® 800 (MSMA)	0.5kg/ha + 3L/ha		300 +
Sour Grass control (for patches only) (Directed application)	Barrage / Bobcat combi + Daconate® 800 (MSMA)	0.9 kg/ha + 3L/ha		300 +

## NUT GRASS CONTROL (In crop)

(GST inclusive)				
Situation	Herbicide	Rate	Cost/ha	Water Rate L/ha
Blanket application	Sempre® Herbicide	65 – 130g/ha		80 +
Directed application	Krismat® WG +2,4-D Amicide® Advance 700	1.5kg/ha +0.8L/ha		150 – 250

## RATOON CANE PRE-EMERGENCE (TRASH BLANKET)

Situation	Herbicide	Rate	Cost/ha	Water Rate L/ha
Blanket application	Balance 750 WG +  Gramoxone 250 need to be added @ 1.6 L/ha.  May be applied “over the top” of ratoon cane as a broadcast or band spray up to the two-leaf crop stage.	100 -125 g/ha Light soils  100 – 150 g/ha medium soils  100 – 200 g/ha Heavy soils		250 +
Blanket application	Bobcat i-Maxx SG +  Gramoxone 250 need to be added @ 1.6 L/ha.  Heavy trash layers may prevent the product from reaching the soil. Apply to weed-free soil prior to weed germination.	500 – 630 g/ha		400 - 600



## **SPOT SPRAYING**

<b>Situation</b>	<b>Herbicide</b>	<b>Rate / 100L Water</b>
Perennial grasses (including guinea grass)	Barrage / Bobcat® Combi WG	1 kg
Perennial grasses (including guinea grass)	Daconate® (MSMA) (Best results in hot dry conditions with Temperature above 25° C)	1.1 L
Perennial grasses (including guinea grass)	Daconate® (MSMA) + Barrage / Bobcat® Combi WG (Best results in hot dry conditions with Temperature above 25° C)	1.1 L + 0.9 kg
Perennial grasses (including guinea grass)	Bobcat i-Maxx SG	350 grams
Perennial grasses (including guinea grass)	Glyphosate 450	0.9 – 1.3 L
Sicklepod	Tordon™ 75-D +2,4-D Amine 625	300ml + 150ml
Perennial grasses (Including guinea grass and vines)	Asulox® + 2,4-D Advance 700 (Needs temperature above 17° C & 80% humidity for best results)	2L + 200mls
Perennial grasses <b>(Including guinea grass, couch grass, phragmites &amp; sorghum)</b>	DalaPon740 SP(2,2-DPA) <b>Product not available</b> <i><b>Follow up spraying may be necessary thoroughly wet plant - high water rate</b></i>	1Kg
Perennial grasses <b>(Including guinea grass, couch grass, phragmites &amp; sorghum)</b>	DalaPon740 SP(2,2-DPA) <b>Product not available</b> + Daconate® 800(MSMA) <i><b>Follow up spraying may be necessary thoroughly wet plant - high water rate</b></i>	1kg +1.1L
Perennial grasses <b>(Including guinea grass stools, couch grass, phragmites &amp; sorghum)</b>	DalaPon740 SP(2,2-DPA) <b>Product not available</b> + Daconate® 800(MSMA) <i><b>Follow up spraying may be necessary thoroughly wet plant - high water rate</b></i>	2kg +3L
Perennial grasses (Including guinea grass)	Krismat® WG + Daconate® 800 (MSMA)	2kg +3L
Perennial grasses (Including guinea grass)	Mentor® 700 WG + Balance® 750 WG + Daconate® 800(MSMA)	2kg +200g +2L

### **Spot Spraying**

***Follow up spraying may be necessary to achieve a good control***

***When using DalaPon (2,2-DPA) use very high-water rates thoroughly  
wet target Up to 1000L/ha **Product not available*****

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## GENERAL WEED CONTROL

### “Salvage Operation”



Established Grass and broadleaf weeds in Ratoon (>10cm tall)

			<i>(GST inclusive)</i>	
Situation	Herbicide	Rate	Cost/ha	Water Rate L/ha
Can be applied over cane. (4-5 leaf stage or larger) • Will burn cane foliage	Daconate® 800 (MSMA) + Diuron 900 DF	3L/ha + 0.5kg/ha		300 +
Can be applied over cane. • May burn cane foliage	Asulox® + 2,4-D Amicide Advance 700	5.5 – 8.5 L/ha +1.5 L/ha		200 - 400

Small Grass (3-4 leaf), broadleaf weeds and vines

<i>(GST inclusive)</i>				
Situation	Herbicide	Rate	Cost/ha	Water Rate L/ha
Can be used over cane. • Burns cane foliage. • Up to 6 weeks' pre-em	Ametrex® 800 WG + Atrazine 900 + Diuron 900 DF +2,4-D Amicide® Advance 700	1.875 kg/ha +1.6 kg/ha + 0.5 kg/ha +0.8L/ha		250 – 400
Can be used over cane. * 4-5 leaf stage * Burns cane foliage	Ametrex® 800 WG + 2,4-D Amicide® Advance 700	2 – 2.5kg/ha + 1.6L/ha		100 – 250
Can be used over small cane. ➤ May burn cane foliage	Krismat® WG +2,4-D Amicide® Advance 700	1.5 – 2.0kg/ha +0.8L/ha		150 – 250



<i>(GST inclusive)</i>				
Situation	Herbicide	Rate	Cost/ha	Water Rate L/ha
Cane early spiking or as directed	Gramoxone®250	1.2 – 1.6 L/ha		250 – 350
	Sprayseed®250	1.6 – 3.2 L/ha		150 – 200
	Gramoxone®250 + Diuron 900 DF	1.2 – 1.6 L/ha + 0.5 kg/ha		250 - 350
	Daconate® 800 (MSMA)	3.0 – 6.0 L/ha		300 +
	Daconate® 800 (MSMA) + Diuron 900 DF	3.0 L/ha +0.5 kg/ha		300 +
	Ametrex® 800 WG	2.8 kg/ha		100 +
	Mentor® 700 WG +Gramoxone®250	0.85 kg/ha +1.2 L/ha		250 - 350

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## FALLOW MANAGEMENT/RATOON SPRAYOUT

			<i>(GST Inclusive)</i>	
Situation	Herbicide	Rate	Cost/ha	Water Rate L/ha
Cane control in Fallows <b>Cane should be fully emerged and actively growing.</b> (+ annual and perennial weeds)	Weedmaster® DST 470	4.6 – 6.9L/ha		80 +
Follow up Cane control in Fallows. <b>Cane should be fully emerged and actively growing.</b> (+ annual and perennial weeds)	Weedmaster® DST 470	3.5L/ha		80 +
Cane control in Fallows <b>Cane should be fully emerged and actively growing.</b> (+ annual and perennial weeds)	Weedmaster® Crucial	3.63 – 5.4L/ha		80 +
Follow up Cane control in Fallows. <b>Cane should be fully emerged and actively growing.</b> (+ annual and perennial weeds)	Weedmaster® ARGO® 540	3.0 L/ha		80 +
<b>If broadleaf weeds are present add a compatible broadleaf herbicide such as 2,4-D Advance 700 or Starane® Advanced or both</b>				
Broad spectrum control in Fallows (Annual grass, vines, sicklepod etc)	Sprayseed® 250 + 2,4-D Amicide® Advance 700	1.6 – 3.2 L/ha +1L/ha		150 – 250
Control cane volunteers & grasses Controls grasses in legume crops. Use with Uptake spraying oil	Verdict™ 520	150 – 800ml/ha		50 – 100
Broad spectrum control in Fallows (annual & perennial grass, vines, & broadleaf weeds)	Basta®	1 – 5L/ha Or 500mls/100L for spot spraying		300 – 500

**Always read the product label before using any  
pesticide!**

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## PESTICIDES

### Fungicides for planting

			(GST inclusive)
Product	Pack size	Application Rate	\$/200L mix
Throttle® 500	5 L	20mL/200L applied	
Bumper®250 EC	5 L	40mL/200L applied	
Tilt® 250 EC	5 L	40mL/200L applied	
Sinker®	5L	500ml in 350L/ha 50ml/100L for Dip ONLY	

### Insecticides



				(GST inclusive)
Product	Pack size	Insects controlled	Application rate	Cost/ha
Lorsban™ 500 EC	20L	Armyworms Australian plague Locusts Spur-throated locust Symphylids – Soil applied at planting Wireworms - Soil applied at planting	700 – 900mL/ha 350 mL/ha 1.25 – 1.5L/ha 2.0L/ha 1.5L/ha	
Regent® 200 SC or Albatross 200 SC	1L	Wireworms- Soil applied at planting	1.1 – 1.8mL/100M row or 73 – 120mL/ha	
Pyrinex® Super	20L	Wireworm- Soil applied at planting	1.88L/ha	
Talstar® 250 EC or Astral 250 EC	5L	Wireworms- Soil applied at planting	2.25mL/100M row or 150mL/ha	

### Greyback Cane Grub

			(GST inclusive)
Product	Pack size	Application Rate	Cost/ha
SuSCon® Maxi i-tel	15kg	10 – 15kg/ha	
Confidor® Guard	10L	1.05 – 1.45L/ha	
Nuprid	10L	1.05 – 1.45L/ha	

**Calibration sheets can be found on the HCPSL Web site**

**HCPSL Web site: [www.hcpsl.com](http://www.hcpsl.com)**



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# HANDY HINTS AND PRACTICAL INFORMATION TO IMPROVE YOUR WEED MANAGEMENT

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## **APPLICATION CHECK LIST**

### **HAVE YOU CHECKED THE PRODUCT LABEL?**

- ✓ **Has Herbicide Sprayer been calibrated for this spraying season?**
  - **Less than 10% variance between nozzle output**
- ✓ **Spray pattern in crop.**
  - **Ensure spray is adequately covering targeted area.**
- ✓ **Water quality – check label or water quality handout sheet.**
  - **Do you know your water quality (if not – test)**
  - **Check required water quality for each chemical.**
  - **Adjust pH if required.**
  - **Correct nozzle type for product being used.**
  - **Check your label for correct droplet size requirements for herbicides being used.**
- ✓ **Avoid spraying in the heat of day. (except for Daconate)**
  - **Reduce drift to increase spray reaching target.**
- ✓ **Apply Chemical to consolidated soil profile if possible.**
  - **Soil movement/settling may result in untreated areas.**

### **INCORPORATION OF PRODUCT**

- **All pre-emergent herbicides except Balance® 750 WG need some form of incorporation.**
- **Incorporation can be by mechanical, irrigation, rainfall or applying to moist soil.**
- **Always check label for timing of incorporation**
- **Hot bare soils can reduce the effectiveness of residual.**

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## CALIBRATION

*Regular calibration of all spraying application equipment is essential to be able to:*

- *To apply the specified amount of product*
- *Apply the required volume of water.*
- *To ensure evenness of application*
- *Avoid environmental contamination.*
- *Comply with label directions.*

**Refer to the HCPSL website [hcpsl.com](http://hcpsl.com) for information sheets on calibration of all types of application equipment.**

## **PRODUCTS:**

**Flame® 240:** (imazapic present as the ammonium salt)



- UV stable and can remain on soil service.
- Product activated by rainfall/irrigation; weeds may emerge prior to activation and require additional control methods.
- Lower rates for lighter textured soils
- Levels of weed controlled may be reduced by high organic matter soils and recent application mill mud/ash.
- Ensure good calibration and accurate measurement of product.
- DO NOT apply more than 400 ml/Ha per season.
- Good for nutgrass control
- Must be irrigated/rained into soil profile to work efficiently on target.
- Avoid water with a high iron content.

**HELPFUL HINT** - always use a knockdown such as paraquat to minimise the adsorption of Flame® into the cane plant.

**Balance® 750 WG:** (isoxaflutole)

- UV stable and can remain on soil service for extended periods of time.
- Product activated by rainfall/irrigation; weeds may emerge prior to activation and require additional control methods.
- Effective for control of problem perennial grasses in Out of Hand blocks.
- Apply higher rates for long-term control.
- DO NOT use in sodic soils.
- Consider soil cation exchange capacity (CEC) and organic carbon levels (OC) before application.
- CEC above 4.5 meq/100g
- Or if Organic Carbon levels are below 1.0%, CEC needs to be above 9meq/100g.

**HELPFUL HINT** - always use a knockdown to minimise the absorption of Balance® into the crop.

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### **Soccer® 700 WG: (metribuzin)**

- Use as a tank mix where there is a broad spectrum of grass and broadleaf weeds.
- Ensure good incorporation for target death.
- Incorporate by rain or irrigation before 10 days.
- Do not irrigate within 48 hrs of application.
- Use top end label rates for extended vine control.
- Use at least 250 litres of water/Ha.

### **Atrazine 900 WG:**

- Must be incorporated within 10 days or pre-emergent control will be reduced.
- Not to be used within 60 metres of a permanent lake or dam or 20 metres from natural water course
- Max rate of 3kg/ha of active per any 12-month period
- Good for pre-and post-control for some annual grasses and broadleaf weeds
- Water pH needs to be less than 8.
- Effectiveness greatly reduced by hard water.

### **Ametryn:**

- Recommended water pH greater than 6
- Good quality water with no clay particles
- Can cause burn on young cane.

### **AmiTron:**

- Can be applied to dry soils (UV stable)
- Effective residual control against broad leaf weeds, woody weeds, vines, and grasses.
- Can be applied over trash blanket with minimal reduction in efficacy.
- AmiTron requires only 2.5mm of rainfall/irrigation to activate and start killing weeds.
- Compatible with knockdown herbicides.
- Can be applied in Plant or Ratoon crops.
- Should not be used in soils containing >90% sand.



### **Gramoxone®250 and Sprayseed®250 (paraquat/diquat)**

- WARNING: this is an S7 chemical and extreme care must be taken when handling and using
- Systemic activity is enhanced if applied late in day or at night.
- Commonly used for crop safety to reduce potential phytotoxicity of post emergent herbicides consider adding paraquat to the mix. (Amount dependent on weed size).
- pH greater than 8 may adversely affect results.

### **2,4-D (various formulations) plus MCPA, Starane™ Advanced:**

- Ensure high water rates and avoid spraying in the heat of the day to minimise crop damage.
- Ensure correct droplet size for product in use.
- Seek advice for varietal susceptibility (SRA 3, Q226, Q240, Q183 are susceptible)
- Avoid drift onto neighbouring crops, public places & neighbouring gardens.

Recommended water pH between 4 – 6.

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### **Basta: Glufosinate-Ammonium**

- Non-selective activity against many annual & perennial broadleaf weeds & grasses
- Absorbed through plant foliage and green stems.
- Not significantly translocated through as an active herbicide through the plant, only kills parts of green plants that is contacted by spray.
- Compatible with most residual herbicides (ref to label)
- Used with Spray hoods/shields for crop safety.
- Can be used as a spot spray (ref to label)

### **Bobcat® i-MAXX SG: Hexazinone + Imazapic**

- Residual herbicide for grass and broadleaf weeds
- Dual mode of action for resistance management
- Always tank mix Bobcat® i-MAXX with 1.6L/ha Paraquat 250 (Gramoxone 250) for added control of emerged weeds.
- Use lower rates on lighter sandy type soils.

### **Valor®500 WG: Flumioxazin**



- It can either be used with knockdown herbicides to improve broadleaved weed control, or at higher rates for residual control.
- It will not be broken down by the sun before it can be incorporated into the top of the soil for at least three weeks.

### **Palmero TX: Isouflutole**

- There are two main use timings for PALMERO® TX in sugarcane:
- As a directed spray in plant or ratoon cane just prior to canopy closure in a tank mix with Spraytop®; OR
- As a broadcast or banded spray in ratoons after harvest and up to the two-leaf crop stage.
- 1. Apply PALMERO® TX with Spraytop® 250 (or equivalent registered paraquat formulation) where emerged cane is present at the time of application and follow the use guidelines by crop timing in the Critical Comments in the Directions for Use table.
- 2. Do not apply PALMERO® TX with wetting agents, crop oils or other adjuvants
- 3. Do not apply PALMERO® TX to areas which have poor drainage or poor root development in the crop.
- 4. The use of PALMERO® TX on newly limed soil could cause severe crop damage, please contact your local Adama representative for advice prior to use of PALMERO® TX in this situation.
- 5. Follow the general rate guidelines regarding light, medium and heavy soils.

Category	Common soil description	Clay content %	Suitable PALMERO® TX rates
Light soils	e.g. sands, loamy sand, light sandy loam, light silty loams	less than 15%	1 to 1.25 kg/ha
Medium soils	e.g. sandy loam, silty loam, sandy clay loam, loam	15-33%	1 to 1.5 kg/ha
Heavy soils	e.g. heavy loams, clay loams, clays, dark earths	Greater than 33%	1 to 2 kg/ha

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# Glyphosates:

Addition of a compatible 2,4-D or Starane Advance will assist broadleaf control; Seek advice or check compatibility chart.



## Glyphosate Formulations

Trade Name (examples)	Active ingredient	2,4-D compatibly	Directions for use
Glyphosate® CT Gladiator® Wipe Out®	Isopropylamine salt 360-540g/L	2,4-D Surpass® 475, Estercide®Xtra 680 <u><b>Amicide® Advance 700</b></u>	Do not use spray oils. Controls a broad range of grass. and broadleaf weeds
Credit®* Weedmaster® Duo	Isopropylamine and Mono-ammonium salts 360-540g/l	2,4-D LV Ester Surpass® 475	Do not use spray oils. Controls a broad range of grass. and broadleaf weeds
Roundup® Attack™ Touchdown® Hi Tech Wipe-Out® Accelerate. Gladiator OptiMAX Glyphosate 495K	Potassium salt 495-570g/L	2,4-D LV Ester Surpass® 475. Zulu® 300	Controls a broad range of grass. and broadleaf weeds Do not add oils as wetters except where they may be required for another herbicide in the mixture being applied
Roundup® DST Weedmaster® DST®	Potassium and mono- ammonium salts 470g/L	2,4-D LV Ester 680 Surpass® 475. <u><b>2,4D Advance 700</b></u>	Do not use spray oils. Controls a broad range of grass. and broadleaf weeds
Weedmaster® ARGO®	Potassium and Isopropylamine salts 540g/L	2,4-D LV Ester 680 Surpass® 475. <u><b>2,4-D Advance 700</b></u>	Do not use spray oils. Controls a broad range of grass. and broadleaf weeds. Registered for inter row spraying in cane
Glyphosate 700SG Ken-Up® Dry 680 WG Glyphosate 875	Mono-ammonium salt 680-875g/kg	2,4-D LV Ester 680 Surpass® 475	Do not use spray oils. Controls a broad range of grass. and broadleaf weeds
Wipe-Out® Plus	Monoethanolamine salt 510g/L	2,4-D LV Ester Surpass® 475. Zulu® 300	Do not use spray oils. Controls a broad range of grass. and broadleaf weeds
Innova Roundup trimesium 480	Trimesium salt 480g/L	<b>No mention of 2,4-D use on the label</b>	Controls a broad range of grass. and broadleaf weeds
Weedmaster Crucial	Potassium, Monomethylamine and Mono-Ammonium salts 600g/L	2,4-D LV Ester 680 Surpass® 475. <u><b>2,4-D Advance 700</b></u>	Controls a broad range of grass. and broadleaf weeds

**Ensure water pH is 4.5 – 6 (add a buffer to adjust the pH)**

**Ensure good water quality (CLEAN WATER)**

**Keep water rates less than 150L/Ha**

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# CHEMICAL MIXING ORDER FOR APPLICATION EQUIPMENT

*Know your water quality  
Have it checked on a regular basis?*

STEP	PRODUCT EXAMPLE
⇒STEP 1. Fill tank with water to 60-80% full. Run pump for water agitation	
⇒Step 2 . Add any water conditioners if water testing indicates they are required	Bonus <sup>®</sup> , Liase, LI 700 <sup>®</sup>
⇒Step 3 . Add Dry Flowable Granules	Diurex <sup>®</sup> , Velpar <sup>®</sup> K4 <sup>™</sup> DF <sup>®</sup> Atradex <sup>®</sup> , Soccer <sup>®</sup> , Ametrex <sup>®</sup> 800WG, Balance <sup>®</sup> 750WG
⇒Step 4. Add any Suspension concentrates (flowables)	Gesapax <sup>®</sup> Combi, Diuron flowable
⇒Step 5 Add a wetting agent at this stage if an EC (Emulsifiable Concentrate) is to add next	Activator 90 <sup>®</sup> , Agral, LI-700 <sup>®</sup>
⇒Step 6. Add Emulsifiable Concentrate (if being used)	Trifluralin <sup>®</sup> X, Stomp <sup>®</sup> Xtra
⇒Step 7. Add Water soluble concentrates and or Aqueous solutions	2,4-D Amicide <sup>®</sup> Advance 700, Sprayseed <sup>®</sup> 250 Gramoxone <sup>®</sup> 250 Dicamba 500 MCPA 500 Glyphosate
⇒Step 8 Add a Wetting agent if not previously added at Step 2 or at Step 5.	Activator 90 <sup>®</sup> , Agral, LI-700 <sup>®</sup> (Non-ionic surfactant) or Oils
⇒Step 9 Complete filling the tank with water	



NB. There are other products that may be used that are not listed in the above table.

## REEF WISE FARMING

- ✓ Follow label rate and application timing for your cane growing region.
- ✓ Diuron, Velpar, Ametryne and Atrazine all per label for your region
- ✓ Frequency of application refers to any 12-month period.
- ✓ Ensure recordkeeping is adequate and up to date.

**Always read the product label before using any pesticide!**

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## CALIBRATION OF A HERBICIDE SPRAYER

Date of Calibration: .....

### Steps for Calibration

1. Select your tractors' gear and engine RPM for your preferred application speed.

Record the details below:

- A) Tractor ID: (Eg: JD 3130) ..... Boom Type & ID: (Flat Boom or Irvin Legs) .....  
B) Gear: (Eg: 2<sup>nd</sup> High) .....  
C) Engine RPM: (= 540 PTO RPM) .....  
D) Pressure: (Eg: 3 bar or 45 PSI) .....  
E) Nozzle type and size: (Eg: Air Induced Flat Fan 110-04) .....  
F) Record your time to travel **50 meters**. (Check at least twice.) Seconds:

**Collect output of the nozzle/s or each dropper or Irvin leg in Litres for the time recorded in (1-F).**  
(Stationary calibration)

Nozzle 1 eg: 0.6L L	Nozzle 2 eg: 0.6L L	Nozzle 3 eg: 0.6L L	Nozzle 4 eg: 0.6L L	Nozzle 5 eg: 0.6L L	Nozzle 6 eg: 0.6L L	Total	L
Nozzle 7 eg: 0.6L L	Nozzle 8 eg: 0.6L L	Nozzle 9 eg: 0.6L L	Nozzle 10 eg: 0.6L L	Nozzle 11 eg: 0.6L L	Nozzle 12 eg: 0.6L L	Total	L
Nozzle 13 eg: 0.6L L	Nozzle 14 eg: 0.6L L	Nozzle 15 eg: 0.6L L	Nozzle 16 eg: 0.6L L	Nozzle 17 eg: 0.6L L	Nozzle 18 eg: 0.6L L	Total of All Nozzles	Eg: 10.8L L

2. Determine the treated area: in **Square Meters(M<sup>2</sup>)**

<b>Total boom width sprayed in METERS</b> Eg: 5 Rows @ 1.63m = 8.15m .....M	X	<b>50 M</b> 50 M	=	<b>M<sup>2</sup></b> Eg: 407.5m <sup>2</sup> .....M <sup>2</sup>
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3. Calculate the application rate of water/ha

<b>Total Output of nozzles</b> Eg: 10.8L .....L	÷	<b>Spray Area M<sup>2</sup></b> Eg: 407.5m <sup>2</sup> .....M <sup>2</sup>	x 10,000 =	<b>Spray Rate</b> Eg: 265L/ha .....L/Ha
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4. Calculate how much herbicide to add to your spray tank.

<b>Tank Volume</b> Eg: 800L .....L	÷	<b>Spray Rate</b> Eg: 265 L/ha .....L/Ha	X	<b>Product Rate</b> Eg: 1.50 L/ha .....L/Ha	=	<b>Herbicide in Tank</b> Eg: 4.53 L/ 800L Tank .....L
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