
European
Union
SUGAR RESEARCH
INSTITUTE OF FIJI
Herbicide Guide 2009

European Union

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Introduction

This booklet is to assist and guide sugarcane growers with regard to use of appropriate herbicides to control weeds. The most important information is included but the guide needs to be used in conjunction with the herbicide label instructions. The growers are to use the selected treatments and rates as a basis to plan how to control weeds which are responsible for the reduction of cane yields of up to 25%.

Common Weeds in Sugarcane Fields

Type of Weeds	Common Name	Botanical Name	Local Name
Grass	Nadi blue grass		Batiki
	Crowsfoot grass	*Eleusine Indica*	Ghodraiya
	Mongoose tail grass	*Setaria lutescens*	Bandariya
	Guinea grass	*Panicum maximum*	
	Mission grass	*Pennisetum polystchyon*	Sotia
	Itch grass	*Rottboellia cochinchinensis*	Daula

Crowsfoot Grass

Mongoosetail grass

Guinea Grass

Mission Grass

Common Weeds in Sugarcane Fields

Type of Weeds	Common Name	Botanical Name	Local Name
Grass	Couch grass	*Cynodon dactylon*	
	Summer grass	*Digitaria ciliaris*	
	Para grass	*Brachiaria mutica*	
	Johnson grass	*Sorghum halepense*	
	Jungle rice	*Echinochloa colona*	
	Sourgrass	*Paspalum conjugatum*	
	Green summer grass	*Brachiaria subquadrpara*	

Couch Grass

Summer Grass

Para Grass

Johnson Grass

Common Weeds in Sugarcane Fields

Type of Weeds	Common Name	Botanical Name	Local Name
Broadleaf	Billy- goat weed	*Ageratum spp*	
	Phyllanthus	*Phyllanthus spp*	
	Rattlepod	*Crotalaria striata*	
	Green amaranth	*Amaranthus viridis*	Chauraiya Bhaji
	Needle burr	*Amaranthus spinosus*	
	Milkweed	*Euphorbia heterophylla*	Dudaiya

Billy-goat weed

Phyllanthus Amarus

Needle Burr

Green Amaranth

Common Weeds in Sugarcane Fields

Type of Weeds	Common Name	Botanical Name	Local Name
Broadleaf	Broomweed	*Sida acuta*	Bariyaara
	Kaumoce	*Cassia tora*	Chakor
	Spider flower	*Cleome viscosa*	
	Asthma plant	*Euphorbia hirta*	
	Wild gooseberry	*Physalis minima*	Bootkaiya
	Pigweed	*Portulaca aleracea*	

Broom weed

Spider Flower

Asthma Plant

Pig weed

Common Weeds in Sugarcane Fields

Type of Weeds	Common Name	Botanical Name	Local Name
Creeper	Giant sensitive plant	*Mimosa invisa*	Ulta kata
	Sensitive plant	*Mimosa pudica*	Lajonia
	Ivy Gourd	*Coccinia grandis*	Kundru
	Quamoclit	*Ipomoea quamoclit*	

Giant Sensitive Plant (GSP)

Sensitive Plant

Ivy Gourd

Quamoclit

Common Weeds in Sugarcane Fields

Type of Weeds	Common Name	Botanical Name	Local Name
Creeper	Stinking passion flower	*Passiflora foetida*	Qaranidila
	Mile - a – minute	*Mikania micrantha*	Titaiyabaour
	Centro	*Centrosema pubescens*	
	Balsam pear	*Mormordica charantia*	Karela
Nutsedge	Nut grass	*Cyperus rotundus*	Motha

Stinking Passion Flower

Mile-a-minute

Centro

Nut grass

Plant Cane Growth Stages

1. Emerging stage (spike)

2. 3-4 Leaf stage

3. Tillering stage

4. Stooling stage

Types of Herbicides

Contact

These herbicides are applied to the leaves and do not move far from the point of contact. Kills that part of plant with which it makes contact. Used mainly for annual weeds and will only kill the tops of established perennials. Addition of sticker helps to increase the rate at which it is taken into the leaves ~~e.g. Gramaxone (Paraquat)~~

Translocated

These herbicides are applied to the leaves and move to other parts of the plants. Act slowly but the effects are more widespread. Able to control perennial plants. Action is systemic and movement is principally through the phloem. Can either be selective (2,4,D Amine720)/ Weedkiller E80 ~~or non selective (Glyphosate/ Roundup)~~

Residual

These are applied to the soil and are mainly root absorbed. They are relatively persistent and move mainly through the xylem. e.g. Diuron, Atrazine

Tips to improve the effectiveness of Herbicides on Plant crop

Plant cane first application

1. If weeds are present add Gramoxone at 0.5 - 1.0 L/ha preferably during spike stage before leaf development
2. Mixtures with Diuron are preferred in humid areas and where grasses are predominant.
3. Atrazine is preferred where broad-leaf weeds are predominant and in dry areas

Plant cane second application

1. A wetting agent should be added where 2,4-D Amine720 salt is used.
2. Mixtures with Atrazine are preferred if broad-leaf weeds are present.
3. Diuron alone is used where food crops are grown in inter-row

Explanation of Terms used in this booklet

Abbreviations:

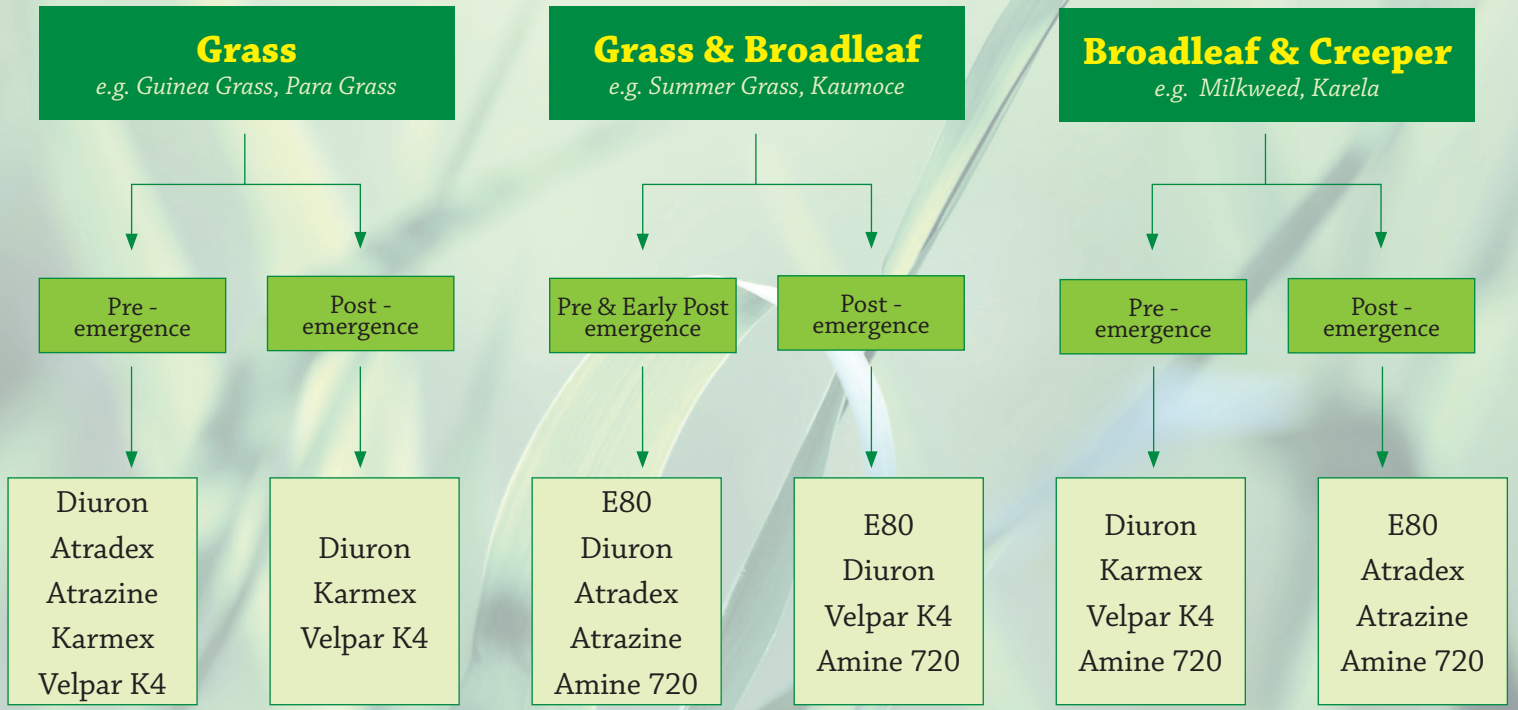
G – Grass
BL – broadleaf
CR - creeper

Weed spectrum: Generally refers to a particular weed group (e.g. G - grass). Normally, we do not find any one group of weeds but often a mixed stand is seen in the fields in which grasses are most dominant followed by broadleaf. The herbicide must be selected to deal with them in this order.

Stages of weed growth: The term pre-early and post refer to the growth stage of weeds. The table below provides some information on these most important growth stages

Stages	Grass	Broadleaf
Pre - emergence	No emergence	No emergence
Early post - emergence	1 to 3 leaves	0 - 30mm height
Post - emergence	2 to 4 leaves	<100mm height

Herbicide Chart



ATRAZINE

Trade names	Formulations
Atradex	**900g/L Atrazine**
Nutrazine	**500g/L Atrazine**
Weed controlled	Mainly annual broadleaf weeds and some grasses
Estimated time of control	5 - 7 weeks
Site of absorption	Mainly roots
Application time	Pre - emergence
Absorption and leaching in soils	Absorbed by clay and organic matter
Weather requirements	Active growing conditions and soil must be moist, best results obtained when rainfall moves the herbicide into the root zone after application
Comments	Provides good pre-emergence of grasses. ~~Paraquat controls early emerged weeds if application is delayed in plant cane. Readily absorbed through leaves and stem but mainly taken into plants by roots. Inhibits photosynthesis with symptoms of yellowing and death. Provides knockdown and residual action~~.

CANE SPRAY

Trade names	Formulations
Cane spray 333	**75g/L of Dicamba, 300g/L,2,4-D**
Weed controlled	Broadleaf
Estimated time of control	5 - 7 weeks
Site of absorption	Foliage and roots
Weather requirements	To be applied when conditions are conducive to active weed growth
Comments	Efficacy can be drastically improved in mixtures. Taken into plant by foliage and roots and translocated to growing points where it accumulates to affect cell division and enlargement. Fairly slow in action.

DIURON

Trade names	Formulations
Diuron 80	**800g/kg Diuron**
Diuron 900DF	**900g/kg Diuron**
Weed controlled	Mainly annual broadleaf weeds and grasses
Estimated time of control	4 - 5 weeks
Site of absorption	Mainly through roots, but also through leaves
Absorption and leaching in soils	Absorbed by soils by clay and organic matter content
Application time	Either as pre or post - emergence, use surfactants
20 - 25ml/ knapsack	Active growing conditions. Soil must be moist. Best results obtained when rainfall moves the herbicide into the root zone after application
Weather requirements	Active growing conditions. Good results obtained on moist soils or when rainfall moves the herbicides into the soil soon after application
Comments	Can be used with a number of other chemicals as it controls a range of weeds. ~~High rates can affect cane yield, particularly in mixtures with paraquat when cane leaf is sprayed.~~ Taken into plant by foliage and roots and translocated to growing points where it accumulates to affect cell division and enlargement. Fairly slow in action

GL[illegible]SATE (Roundup)

Trade names	Formul[illegible]
Weed Master	**[illegible]Glyphosate present as [illegible]pyl amine + [illegible]onium salts**
~~**Sting**~~	**120[illegible]sate prese[illegible]opropyl amine salt**
Roundup	**360g/[illegible]te pr[illegible]e isopropyl amine salt**
Glyphosate CT	**450g/L Gl[illegible]s the isopropyl amine salt**
Weed controlled	Non - selecti[illegible]s sugarcane and most annual and perennial weeds
Estimated time of control	Only existi[illegible]
Site of absorption	Leaf or[illegible]lant [illegible]
Absorption and leaching in soils	Str[illegible]ed in soils
Weather requirements	[illegible]ng conditions for ca[illegible]ion. Not to rain for next 6 - 8 [illegible]ter application. Targeted p[illegible]e be suffering from drought [illegible]ter logging
Comments	[illegible]ore effective in summer conditions. [illegible]through foliage, then translocated to all parts of the plant includi[illegible]rhizomes. Inhibits photosynthesis. It is inactivated immediately o[illegible]ith soil

VELPAR

Trade names	Formulations
Velpar K4	**1 : 4 Hexazinone 132g/kg : 468g/kg Diuron**
Weed controlled	Grasses and broadleaf
Estimated time of control	Up to 10 weeks
Site of absorption	Leaf and roots
Absorption and leaching in soils	Moderatly adsorbed by clay
Application time	Pre or post - emergence
Weather requirements	Application to moist soils is preferred
Comments	Provides good control for a broad spectrum of grasses at the 2,4 leaf stage and pre tillering stage and broadleaf weeds when they are less than 6- 8 cm high

PARAQUAT

Trade names	Formul
Agazone	**V/V Paraquat**
Gramoxone	**2 quat**
Weed controlled	Ann nd broadle r than 8cm
Estimated time of control	Kills exi ly
Absorption and leaching in soils	Inactive wh l
Application time	Post - emergen 2 to 4 leaf stage
Weather requirements	No rain durin
Site of absorption	Leaf only. location only limited
Comments	The he ion- se ct chemical. Adding Diuron mixture is u eds which are other herbicides. Paraquat causes s ing to cane leaf. T at mixtures are used it should d away from leaf in rat ould preferably be applied r than spike stage of plant ca t desiccates green plant ues by a chemical and light interacti phyll. It has localized ranslocation under low light conditions. rapid under high light conditions with total desiccation within

WEEDKILLER

Trade names	Formulations
Weedkiller E40	**40% 2,4-D ester**
Weedkiller E80	**80% 2,4-D ester**
Weed controlled	Apply to actively growing broadleaf and vines
Estimated time of control	If applied at right time kills existing weeds e.g. stinking passion flower up to 6 leaf stage.
Absorption and leaching in soils	Breaks down due to soil microbes
Application time	Actively growing period post - emergence
Weather requirements	Rain- free period for about 5 hours
Site of absorption	Good leaf absorption
Comments	Avoid drift particularly near crops such as pawpaw and tomatos. Not effective when weeds are stressed due to moist or dry conditions. Do not apply to cane stressed either by drought or water logging. Taken into plant through leaves, stems and a little via the roots. It moves in the plant and accumulates in growing points where it interferes with cell division

AMINE

Trade names	Formulations
Amine 720	**720 g/L 2,4-D Dimethyl Amine Salt**
Weeds controlled	Selective herbicide for broadleaf also controls convolvulus vines
Estimated time of control	Kills existing plants, especially vines
Absorption and leaching in soils	Ineffective on soils
Application time	Actively growing weeds and good soil moisture helps herbicide movement in plants
Weather requirements	Rainfree for at least 6 hours
Site of absorption	Uptake by leaf
Comments	Excessive rates of this herbicides reduces effectiveness as it reduces translocation to the roots and allows the weeds to regrow. Hormone type herbicide which is absorbed by leaves and translocated throughout the plant to interfere with cell division and elongation

Which herbicide to use

DETERMINE THE COMMON SPECTRUM OF WEEDS (BL,G,CR)

MAKE DECISION ON TIMING OF APPLICATION (i.e. pre, post)

e.g. Assuming broadleaf weeds are expected and if Pre-emergence is to be applied then choose row 1 in the table below and move across to the column "BL" then move to the Table indicated in the box. In this case it is Table 1.

Time of Application	Types of Weeds			
	BL	G	BL & G	G & BL & CR
Pre-emergence (assumption)	1	1	1	1
Pre to early post - emergence	4	4	4	4
Post - emergence	2 & 3	2 & 3	2 & 3	2 & 3
Late post - emergence	5	5	5	5
	Problematic Weeds			
	GSP	IG		GG
Pre - emergence (assumption)	6	6		6
Post - emergence	7	7		7

Go to selected table number

Key: BL – Broadleaf, G – Grass, CR – Creeper, IG – Itch Grass , GSP – Giant Sensitive Grass, GG – Guinea Grass

Pre-emergence for Plant Crop

Table 1.0

Broadleaf	Grass	Broadleaf & Grass	Herbicide	Rate/knapsack	
				15L	20L
*			Atradex (Atrazine)	200g(225g)	267g(300g)
	*		Diuron900	250g	333g
			Karmex	276g	367g
		*	Diuron 900 + Atradex	(200+200)g	(267+267)g
			Karmex + Atrazine	(225+225)g	(300+300)g

Broad leaf

Braod leaf & Grass

Note: Select your weeds by the asterisk (*) then follow the row to get recommended treatment rate. Use 20-25ml/knapsack sticker to improve the effectiveness of the herbicide.

Post - emergence for Plant crop

Table 2.0

Broadleaf	Grass	Broadleaf & Grass	Broadleaf & Creeper	Herbicide	Rate/knapsack	
					15 litres	20 litres
*				E80	150ml	200ml
	*			Diuron/ Karmex	200g	266g
		*		Diuron + Amine 720	150g + 150ml	200g + 200ml
				Karmex + Amine 720	150g + 150ml	200g + 200ml
			*	Atradex (Atrazine) + E80	150g+100ml	200g+133ml
				Amine 720	150ml	200ml
				E80	100ml	133ml

Broad leaf

Grass

Braod leaf & Grass

Braod leaf & Creeper

Note: Select your weeds by the asterisk (*) then follow the row to get recommended treatment rates.

Post-emergence for Ratoon Crop

Table 3.0	Grass	Broadleaf & Grass	Broadleaf, Grass & Creeper	Herbicide	Rate/knapsack	
					15 litres	20 litres
			*	Diuron +E80	150g + 100ml	200g + 133ml
				Velpar K4	200g	266g
				Atrazine + E80	150g+150ml	200g +133ml
		*		Diuron+ Amine 720	150g+100ml	200g + 200ml
	*			Diuron	200g	266g
				Velpar K4	200g	266g

Grass

Broadleaf & Grass

Broadleaf, Grass & Creeper

Note: Select your weeds by the asterisk (*) then follow the row to get recommended treatment rates.

Pre to Early Post-emergence forPlant/Ratoon Crop

Table 4.0

Grass	Broadleaf & Grass	Broadleaf, Grass & Creeper	Herbicide	Rate/knapsack	
				15 litres	20 litres
		*	Diuron + E80	150g +100ml	200g + 133ml
			Atrazine + E80	150g+150ml	200g +133ml
	*		Diuron+ Amine	150g+100ml	200g + 200ml
*			Diuron	200g	266g
			Velpar K4	200g	266g

Grass

Broadleaf & Grass

Broadleaf, Grass & Creeper

Note: Select your weeds by the asterisk (*) then follow the row to get recommended treatment rates.

Late Post-emergence for Plant Cane Crop

Table 5.0	Grass	Broadleaf & Grass	Broadleaf, Grass & Creeper	Herbicide	Rate/knapsack	
					15 litres	20 litres
			*	Diuron + E80	150g +100ml	200g + 133ml
				Atrazine + E80	150g+100ml	200g +133ml
		*		Diuron+ Amine 720	150g+100ml	200g + 200ml
	*			Diuron	200g	266g
				Velpar K4	200g	266g

Grass

Broadleaf & Grass

Broadleaf, Grass & Creeper

Note: Select your weeds by the asterisk (*) then follow the row to get recommended treatment rates.

Problematic Weeds Control - Pre-emergence

Table 6.0

GSP	Itch Grass	Guinea Grass	Herbicide	Rate/knapsack	
				15 litres	20 litres
*			Diuron 900	150g	200g
			Karmex	175g	288g
			Diuron+Atradex	100g+100g	133g+133g
			Diuron+ E80	100g+100ml	133g+133ml
	*		Velpar K4	200g	266g
			Diuron+Atradex	200g+200g	266g+266g
		*	Diuron	250g	333g
			Diuron+Atradex	250g+250g	266g+266g

Giant Sensitive Plant (GSP)

Itch Grass

Guinea Grass

Note: Select your weeds by the asterisk (*) then follow the row to get recommended treatment rates.

Problematic Weeds Control - Post-emergence

Table 7.0

GSP	Guinea grass	Itch grass	Herbicide	Rate/knapsack	
				15 litres	20 litres
*			Diuron + E80	150g + 150ml	200g + 200ml
			Karmex + E80	150g + 150ml	200g + 200ml
	*		Diuron	150g	200g
			Velpar K4	200g	266g
		*	~~Roundup (Glyphosate 360)~~ *~~(for Fallow fields only)~~*	~~150ml~~	~~266ml~~

Giant Sensitive Plant (GSP)

Itch Grass

Guinea Grass

Note: Select your weeds by the asterisk (*) then follow the row to get recommended treatment rates.

How to Calibrate Knapsack

Different knapsacks and operators have different spraying rates. Farmers should calibrate to own use.

Steps to Calibrate:

1. Fill the tank with water to the mark
2. Pressurize the tank
3. Spray water into a bucket for 1minute
4. Measure volume of discharged water in the bucket
5. Repeat steps 3&4 at least 3times
6. Fill tank with water and walk at a steady pace
7. Measure distance walked in 1minute
8. Repeat 6&7 at least 3times
9. Take average value of 5&8 to determine average discharge rate per minute and distance walked per minute eg. 20m per minute or 30m per minute
10. Total running meters per hectare is 7300m and per acre is 2955m
11. Amount of water needed to cover 1 ha and 1 acre is as per Table 8.0 on page 32

A i Vakavakarau ni Taqe ni Wainimate

Na i vakarau ni suisui e vakatau ena levu ni taqe kei koya e suisui tiko. Vakarautaka na nomu taqe me ganita na nomu i vakarau ni suisui.

Ai tuvatuva ni vakarautaki ni taqe:

1. Tawana na wai e loma ni taqe me yacova na maka
2. Pamutaka na taqe me sinai ena cagi
3. Suiva na wai ena loma ni dua na vokete me dua na miniti
4. Vakarautaka na levu ni wai ena loma ni vokete
5. Vakamuria vakatolu na i tuvatuva rua kei na tolu (3&4) ka soqona kece na kenai wiliwili ka wasea vakatolu qai vola toka vakatikitiki na kenai soqoni
6. Vakatawana tale na wai ena loma ni taqe ka taubale ena dua na totolo me dua na miniti
7. Vakarautaka na balavu ni vanua ko taubaletaka ena loma ni dua na miniti
8. Vakamuria vakatolu na i tuvatuva lima kei na ono (6&7) ka soqona kece na kenai wiliwili ka wasea vakatolu qai vola toka vakatikitiki na kenai soqoni
9. Na i soqoni ko vola tani mai na i ka lima (5) ni tuvatuva sai koya na i vakarau ni nomu suisui ena dua na miniti. Nai soqoni ko vola tani mai na ka walu (8) ni tuvatuva sai koya na balavu ni vanua ko rawa ni taubaletaka ena loma ni dua na miniti. E rawa ni ruasagvulu na mita ena dua na miniti (20m/ min) se tolusagavulu na mita ena dua na miniti (30m/ min)
10. Na balavu ni laini ena dua na eketea e vitu na udolu ka tolu na drau na mita (7300m/ha) ka rua na udolu ciwa na drau ka limasagavulu ka lima ena dua na eka (2955m/acr)
11. Na levu ni wai e na suiva taucoko e dua na eketea kei na dua na eka e vakaraitaki tiko ena teveli naba walu (Table 8.0) drau ni pepa naba tolusagavulu ka rua.

कैसे नेपसेक की उपयोगिता स्थापित करें

नेपसेक को काम में लाने वाले लोगो के विभिन्न स्प्रेंग गति होती है । किसान अपने लिए स्वं उपयोगिता स्थापित करें ।

नेपसेक की उपयोगिता स्थापित करने के क्रम

१. टेंक में दिए गए चिन्ह तक पानी भर।
२. टेंक को प्रेशाराइज़ करें ।
३. एक मिनट तक पानी एक बालटी में स्प्रे करे ।
४. बालटी में निकला पानी का नाप लें ।
५. क्रम दो तथा तीन को कम स कम तीन बार दोहराएं ।
६. टेंक को दोबारा पानी से भर कर फिर स्थिर पूर्वक चले ।
७. एक मिनट की दूरी का नाप लें ।
८. क्रम छ: तथा सात को कम से कम तीन बार दोहराएं ।
९. क्रम चार तथा सात का औसत मूल्य निकालें ताकि स्प्रेंग गति और चाल की गति निर्धारित हो सके । उदाहरण; २०मिटर् / मिनट या ३०मिटर् / मिनट ।
१०. संपूर्ण चाल एक हेक्टेया का है ७३००मिटर् और एक एकर् का २९५५ मिटर् ।
११. कितना पानी एक हेक्टेया और एक एकर् में लगेगा सूचिपत्र ८ पैज ३२ में दिया गया है ।

Example of Knapsack Calibration

Table 8.0

Calibration	Knapsack per			
	Acre		Hectare	
	15L	20L	15L	20L
If distance walked in 1minute = 30metres and				
Amount of water discharged in 1minute = 1Litre				
Therefore number of knapsack required for: 1 hectare = *7300m/1 x 1L/30m = 243L/15L =16knapsacks/ha 1 acre = * 2955m/1 x 1L/30m = 99L/15L = 7knapsacks/acre	7	6	16	12
Rate of chemical for 1hectare = 4000g				
Rate of chemical for 1acre = 1619g				
Therefore rate per knapsack for 1 hectare = 4000g/16(number of knapsack) =250g/Knapsack 1 acre = 1619/7 (number of knapsack) = 231g/ Knapsack	231g	324g	250g	333g

**7300 running metres in 1 hectare,*2955 running metres in 1acre*

Safety Precautions

1. Wear Protective Clothing (Long sleeve shirt, long pants, rubber boots, gloves and face mask) to avoid direct chemical contact
2. Spray when there is no wind, if slightly windy spray in the wind direction to avoid inhalation and contact with skin and eyes. Do not spray in strong wind conditions.
3. Spray when leaves are moist (early morning) for maximum absorption by plants and minimum wind
4. Immediately shower with soap after spraying
5. Chemicals should be kept dry and stored in a place with adequate ventilation and out of reach of children
6. Wash knapsack and mixing containers in areas that will not contaminate water streams and food crops
7. Bury empty chemical containers and do not reuse for drinking water or food storage or dispose in rivers or canals

A i Tataqomaki ni Bula

1. Daramaka na i sulu (sote ligabalavu, tarausese balavu, gumboot, qaniliga rapa kei na matavulo iloilo)me taqomaka na yagomu mai na wainimate
2. Suisui ena gauna e sega kina na cagi,ke malumu na cagi, suisui vakamuria na cagi me taqomaka na matamu, na kuli ni yagomu, ka mo kakua ni ceguva na wainimate. Kakua ni suisui ke kaukauwa na cagi.
3. Suisui ena mataka lailai ena gauna e se suasua kina na draunikau ka rawa ni gunuva vinaka kina na wainimate ka malumu talega kina na cagi.
4. Savata na yagomu ena sovu ni oti ga na nomu suisui
5. Maroroya vinaka na wainimate ena vanua mamaca, curumi cagi vinaka ka dredre ni ra yacova na gone
6. Savata na nomu taqe kei na nomu i yaya ni tawa wainimate ena vanua me kakua ni vakacacana na wai drodro kei na i teitei
7. Buluta na nomu i tawatawa ni wainimate kece ka kakua ni vakayagataka tale mei tawatawa ni wai ni gunu se kakana. Kakua ni benuca na veiuciwai se veisala ni wai.

रक्षा संबंधी पूर्व जानकारी

१. सुरक्षित कपड़े पहनें जैसे लम्बे बाही वाले शर्ट, पायजामा, रबर बूट्, ग्लव् और नकाब ।

२. दवा उसी समय मारे जब ज्यादा हवा न चल रही हो । अगर धीमी गति से हवा चल रही हो तो कृपया दवा उसी ओर से स्प्रे करे जिधर स हवा चल रही हो ताकि हम दवा सूंघने से बचे और दवा आँख में न पड़े। कभी भी ज्यादा हवा में स्प्रे न करे ।

३. स्प्रे उसी समय कर जब पत्तियाँ कुछ भीगी हो (सुबह के वक्त) ताकि दवा पेड़ ले सके ।

४. स्प्रे के ततकाल ही साबुन-पानी से अच्छी तरह से नहा ले।

५. दवा हर वक्त सूखी जगह पर रखे और वही रखे जहाँ पर्याप्त वायु का संचालन हो तथा जहाँ बच्चे पहुँच न सके ।

६. नेपसेक और अन्य कार्य प्रयोग बर्तन वही साफ करे जहाँ नाले इत्यादि का पानी या खाने वाले फहल दूषित न हो ।

७. दवा के खाली डब्बे अच्छी तरह दफन करे तथा कभी इन्हें पानी पीने या भोजन रखने के लिए इस्तेमाल न करे । खाली डब्बे नाले या अन्य प्रणाली में न फेंकें ।

Mixing of Herbicides

COMMON TRADE NAMES	Velpar K4	Weed-killer	Roundup	Cane Spray	Amine	Gramoxone	Karmex	Atrazine	Active Ingredient
Velpar K4	●	✗	✗	✗	✓	✓	✗	✗	Diuron & Hexazinone
Weedkiller, E40, E80	✗	●	✓	✓	✗	✗	✓	✓	2,4,D ester
~~**Roundup**~~	✗	✓	●	✓	✗	✗	✗	✓	~~Glyphosate~~
Cane Spray	✗	✓	✓	●	✓	✓	✓	✓	Dicamba
Amine	✓	✗	✗	✓	●	✓	✓	✓	2,4,D amine
~~**Gramoxone**~~	✓	✓	✗	✓	✓	●	✓	✓	~~Paraquat~~
Karmex, Diuron	✗	✓	✗	✓	✓	✓	●	✓	Diuron
Atrazine, Nutrazine, Atradex	✗	✓	✓	✓	✓	✓	✓	●	Atrazine

Legend: ***Cant Mix -*** ✗ ***Can Mix -*** ✓

Produced by

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