

CAUTION

KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING

Nufarm
Rifle® 330

Herbicide

Active constituent: 330 g/L PENDIMETHALIN
Solvent: 594 g/L LIQUID HYDROCARBON

GROUP **D** HERBICIDE

For the control of annual ryegrass and wireweed in wheat, barley and peas and annual grasses and certain broadleaf weeds in various crops as shown in the Directions for Use table.

IMPORTANT: READ THE ATTACHED BOOKLET
BEFORE USING THIS PRODUCT.

Contents: 5 Litres

10 Litres

20 Litres

55 Litres

110 Litres

200 Litres

800 Litres

1000 Litres

Nufarm Australia Limited
ACN 004 377 780
103-105 Pipe Road
Laverton North Victoria 3026
Tel: (03) 9282 1000
Fax: (03) 9282 1001



®Rifle is a registered trademark of Nufarm Australia Limited.

STORAGE AND DISPOSAL

Store in the closed, original container in a dry, cool well-ventilated area out of direct sunlight.

Do not store below 5°C. Extended storage below 5°C can result in the formation of crystals on the bottom of the container. If crystallisation does occur, store the container on its side at room temperature and rock occasionally until crystals re-dissolve.

Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do NOT dispose of undiluted chemicals on-site. If recycling, replace cap and return clean containers to recycler or designated collection point.

If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

Refillable containers (55 L, 800 L, 1000 L only):

Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

Envirodrum 110 L Mini Bulk Returnable Container (110 L only):

Store the original sealed Envirodrum in a cool, well ventilated area. Do not store for prolonged periods in direct sunlight. Do not tamper with the Micro Matic valve or the security seal. Do not contaminate the Envirodrum with water or any other foreign matter. After each use of the product, please ensure that the Micro Matic coupler, delivery system and hoses are disconnected, triple rinsed with clean water and drained accordingly. When the contents of the Envirodrum have been used, please return the empty Envirodrum to the point of purchase. The Envirodrum remains the property of Nufarm Australia Limited.

SMALL SPILL MANAGEMENT

Wear protective equipment (See Safety Directions). Apply absorbent material such as earth, sand, clay granules or cat litter to the spill. When absorption is complete, sweep up material and contain in a refuse vessel for disposal. (See Storage and Disposal section). If necessary, wash the spill area with an alkali detergent and water and absorb as above the wash liquid for disposal.

SAFETY DIRECTIONS

Harmful if swallowed. Will irritate the eyes, nose, throat and skin. Avoid contact with eyes and skin. Do not inhale vapour. When preparing spray and using the prepared spray wear a face shield or goggles, cotton overalls buttoned to the neck and wrist (or equivalent clothing) and elbow length nitrile gloves. If product on skin, immediately wash area with soap and water. If product in eyes, wash it out immediately with water. Wash hands after use. After each day's use, wash face shield or goggles, gloves and contaminated clothing.

FIRST AID

If poisoning occurs, contact a Doctor or Poisons Information Centre (Phone 13 11 26). If swallowed, DO NOT induce vomiting. Give a glass of water.

MATERIAL SAFETY DATA SHEET (MSDS)

For further information refer to the Material Safety Data Sheet (MSDS).

CONDITIONS OF SALE

"Nufarm Australia Limited ('Nufarm') shall not be liable for any loss injury damage or death whether consequential or otherwise whatsoever or howsoever arising whether through negligence or otherwise in connection with the sale supply use or application of this product. The supply of this product is on the express condition that the purchaser does not rely on Nufarm's skill or judgment in purchasing or using the same and every person dealing with this product does so at his own risk absolutely. No representative of Nufarm has any authority to add to or alter these conditions."

APVMA Approval No: 52777/5L/0204

APVMA Approval No: 52777/10L/0204

APVMA Approval No: 52777/20L/0204

APVMA Approval No: 52777/55L/0204

APVMA Approval No: 52777/110L/0204

APVMA Approval No: 52777/200L/0204

APVMA Approval No: 52777/800L/0204

APVMA Approval No: 52777/1000L/0204

In case of emergency: Phone 1800 033 498

Ask for shift supervisor. Toll free 24 hours.

Batch No:

Date of Manufacture:

Barcode:

DrumMuster Logo (5L, 10L, 20L, 200L only)

Envirodrum Logo(110L only)

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DIRECTIONS FOR USE**RESTRAINTS**

DO NOT sow sensitive summer crops such as sorghum and millets within 12 months of application of Rifle 330.

DO NOT apply to a poorly prepared seedbed.

DO NOT use Rifle 330 mixed with atrazine on heavy clay soils.

DO NOT apply Rifle 330 where waterlogging is likely to occur.

1. Pre-Plant Incorporated Treatment (Double Incorporation)

Crop	Weeds Controlled	State	Rate	Critical Comments
Cotton	See Weed Table A	Qld and NSW only	3 L/ha	Incorporate into the soil within 24 hours of application. Use a combine with trailing harrows and chain or offset or tandem discs or Lilliston cultivators, set to work to a depth of 2-5 cm. Subsequent planting operations in irrigated cotton may remove the Rifle 330 treated soil from hills leaving an untreated band over the row, requiring a further application of Rifle 330 or other herbicides in that band. When the seedbed is rough, a second incorporation is necessary. Rifle 330 may be applied by aerial or ground spraying. In the Macquarie Valley area, only apply by air when ground is too wet for ground application. (Refer note on "Incorporation" (a)). Use the higher rate on heavy textured soils or those high in organic matter and the lower rate on light to medium textured soils.
Cow peas, mung beans, navy beans, peanuts, pigeon peas and soybeans	See Weed Table A	Qld, NSW and NT only	2.5 to 3 L/ha	
Sunflowers	See Weed Table A	Qld, NSW, Vic, SA and Tas only		
Barley and wheat	Annual ryegrass Wireweed Wild Oats* *Suppression only	All States	1.2 L/ha	Incorporate into the soil within 24 hours of application. (Refer note (a) under "Incorporation"). Use weighted harrows at 8-13 km/hr followed by a cross working with a combine set to work at a depth of 2-5 cm at 8-13 km/hr. Application to heavier soil types which have poor structural characteristics or are poorly worked may result in insufficient and uneven incorporation and unsatisfactory weed control. Heavy soils which are cloddy or have a surface crust or surface seal should be avoided. Attempting to incorporate Rifle 330 when soils are very wet or very dry may also result in insufficient mixing and therefore poor weed control. Wheat and barley seed must be sown approximately 1 cm beneath the chemically treated band or reduced emergence may occur. Refer sections "Cereal Seed Dressings" and "Weather Conditions at Planting". under GENERAL INSTRUCTIONS, for further information on emergence. If wild oats are expected to be a problem use a wild oat herbicide.
Field peas		Southern NSW, Vic, Tas, SA and WA only	2 L/ha	Incorporate into the soil within 24 hours of application. Use weighted harrows at 8-13 km/hour followed by a cross-working with a combine set to work at a depth of 2-5 cm at 8-13 km/hr. Seed should be sown below the chemical band. Use cover harrows behind the combine. (Refer note (a) under "Incorporation"). Use a wild oat herbicide if wild oats are expected to be a problem.
Chickpeas, faba beans, lupins and safflower	Annual ryegrass Wireweed Wild Oats* *Suppression only	Qld, northern NSW and Tas only	2.5 to 3 L/ha	Incorporate into the soil within 24 hours of application. Use weighted harrows at 8-13 km/hr followed by a cross working with a combine set to work at a depth of 2-5 cm at 8-13 km/hr. Seed should be sown below the chemical band. Use cover harrows behind the combine. (Refer note (a) under "Incorporation"). Use the higher rates on medium to heavy textured soils and the lower rates on light textured soils. Heavy soils which are cloddy or have a surface seal should be avoided. Attempting to incorporate Rifle 330 when soils are very wet or very dry may also result in insufficient mixing and therefore poor weed control. If wild oats are expected to be a problem use a wild oat herbicide. Lupins: In Tasmania, use only on species <i>Lupinus angustifolius</i> . Do NOT use on <i>L.albus</i>

2. Pre-Plant Application (Incorporated by the Sowing Process)

Crop	Weeds Controlled	State	Rate	Critical Comments
Barley and wheat	Annual ryegrass Wireweed, Wild Oats* *Suppression only	All States	1.8 L/ha	<p>Barley and wheat: Where full (double) incorporation is impractical and where the seedbed tilth is fine and free of large stones and trash, apply Rifle 330 up to 24 hours prior to sowing. Incorporate with the combine set to sow to a depth of 3-5 cm. Use trailing harrows. (Refer note (a) under "Incorporation"). Wheat and barley seed must be sown at least 1 cm beneath the chemically treated band or reduced emergence may occur. Refer sections "Cereal Seed Dressings" and "Weather Conditions at Planting" under GENERAL INSTRUCTIONS, for further information on emergence.</p> <p>Canola: Apply Rifle 330 up to 24 hours prior to sowing. Incorporate with the combine set to sow the seed below the chemical band. Use the higher rates on medium to heavy textured soils and the lower rate on light textured soils.</p> <p>NOTE: Development of water-logged conditions after the application of Rifle 330 may retard the emergence of canola.</p> <p>If wild oats are expected to be a problem use a wild oat herbicide. Application to heavier soil types which have poor structural characteristics or are poorly worked may result in insufficient and uneven incorporation and unsatisfactory weed control. Heavy soils which are cloddy or have a surface crust or surface seal should be avoided. Attempting to incorporate Rifle 330 when soils are very wet or very dry may also result in insufficient mixing and therefore poor weed control.</p>
Canola	Annual ryegrass Wireweed Wild Oats* *Suppression only	Southern NSW, Vic, SA WA and Tas only	1.8 to 3 L/ha	
	Silvergrass* *Suppression only		2 to 3 L/ha	
Chickpeas, faba beans, field peas, lupins and safflower	Annual ryegrass Wireweed Silvergrass* Wild Oats*	Southern NSW, Vic, SA and WA only	2 to 3 L/ha	
Lupins	*Suppression only	WA only	2 L/ha plus simazine at 500 g ai/ha	
		NSW, Vic and SA only	2 L plus simazine at 1.5 kg ai/ha	

3. Post-Plant Pre-Emergence Surface Treatment (Overall or Band Spraying): Non-Mechanical

Cotton	See Weed Table B	Qld and NSW only	4.5 L/ha	<p>Cotton: Where incorporation prior to sowing is impractical and where the seedbed tilth is fine and free of large stones and trash, Rifle 330 should be applied within 48 hours after sowing.</p> <p>Sunflowers: Where incorporation prior to sowing is impractical and where the seedbed tilth is fine and free of large stones and trash Rifle 330 should be applied after sowing and before the emergence of the crop and weeds. Where fat hen or blackberry nightshade is expected to be a major problem, pre-plant incorporation (No. 1 application method). is preferred. (Refer sections on "Incorporation" (a) and (b).)</p>
Sunflowers		Qld, NSW and SA only		

Crop	Weeds Controlled	State	Rate	Critical Comments
Maize	See Weed Table B	Qld, NSW and NT only	4.5 L/ha	Where grasses are expected to be the major problem, it is recommended that Rifle 330 be used alone. Apply Rifle 330 after planting and before emergence of crop and weeds. Do NOT incorporate this treatment. Avoid application in dry weather, this may cause pruning of aerial roots and lodging. (Refer sections on "Incorporation" (b) and (c)).
	See Weed Table C		3 L/ha plus atrazine at 1.0 kg ai/ha	Where thornapple, Noogoora burr, Bathurst burr, caltrop, paddy melon or mintweed are expected to be the major problem, Rifle 330 should be applied in a tank mix combination with atrazine after planting and before the emergence of crop and weeds. Do NOT incorporate this mixture. Follow directions on atrazine label carefully. This treatment should not lead to soil residue problems with atrazine as the application rate is low. Do NOT use Rifle 330 mixed with atrazine on heavy clay soils as weed control may not be adequate. (Refer sections on "Incorporation" (b) and (c)).
Broad beans	Poppies Wireweed (<i>Polygonum aviculare</i>)	Tas only	4L/ha	Minimum Planting Depth Carrots: 15mm Processing peas, Broad beans, and French beans: 30mm
Carrots	See Weed Table D	Qld, NSW, Vic, SA, Tas, WA only	2 to 3 L/ha	Seed should be sown with press wheels or rollers behind the planter in order to ensure coverage of the seed and compaction of the seed bed. Apply RIFLE 330 to a fine firm seedbed free of ridges, clods and trash within 2 days after sowing. Use the higher rates on heavier textured soils or those with a higher organic matter content. Incorporate with 12 to 25 mm of spray irrigation or rainfall applied within one day of application for optimum performance. Do NOT disturb the soil by rolling or harrowing after RIFLE 330 has been applied. Do NOT apply where heavy rainfall or irrigation is likely to lead to water logging. Do NOT use RIFLE 330 on soils with an organic matter content above 6% as inconsistent weed control will occur.
	Weed Table D plus Sowthistle (<i>Sonchus oleraceus</i>) Wild radish (<i>Raphanus raphanistrum</i>)		2 L/ha plus linuron at 1.0kg ai/ha	
French beans	See Weed Table D	Qld, Tas only	3 to 4 L/ha	French Beans: For Qld, use in the Lockyer and Fassifern valleys only. Do NOT apply to French beans sown during the autumn, winter or early spring or which are likely to be stressed by cold weather.
Processing peas		Qld, Vic only	2 to 4 L/ha	
		Tas only	4 L/ha	
Onions	Hogweed (wireweed)	Tas only	0.75 to 1 L/ha	Apply in conjunction with other herbicides as advised by a qualified crop adviser to ensure that an adequate level of weed control is achieved in adverse conditions. Pre-emergence Do NOT use on sandy soils. Minimum planting depth: 15 mm Apply from immediately after sowing until just prior to emergence. Apply Rifle 330 to a fine, firm seedbed free of clods and trash. Use the higher rates on heavy textured soils or those with a high organic matter content. For optimum performance, incorporate with 12 to 25 mm of spray irrigation within one day of application. Do NOT exceed 0.75 L/ha if soil conditions are wet and cold.
			1 to 2 L/ha	Post-emergence Apply Rifle 330 from the first true leaf until the 3 leaf stage. Repeat applications may be made after the 1 leaf up to the 3 leaf stage providing total usage of Rifle 330 on crop does not exceed 3 L/ha. Avoid applying Rifle 330 to areas where water logging is likely to occur.

4. Post-Plant Pre-Emergence Treatment (Incorporated or Non-Incorporated)

Crop	Weeds Controlled	State	Rate	Critical Comments
Sugar cane	Awnless barnyard grass Crowsfoot grass Green summer grass Guinea grass Summer grass	Qld, NSW and WA only	3 to 4.5 L/ha	Rifle 330 should be applied as soon as possible after planting and before weed emergence. However, consolidation (cutaway operation) of the planting furrow prior to application to prevent soil movement into the base of the drill is recommended. Poor grass control is expected in soils which contain a high percentage of organic matter. (Refer section on "Incorporation" (a)). Use the higher rate where longer weed control is required or where incorporation by irrigation or rainfall is likely to be delayed more than 5 days. Incorporation: Under dry conditions or where some cultivation is expected after application Rifle 330 should be thoroughly incorporated by finger rakes to a shallow depth. In subsequent tillage operations, cultivation depth should not exceed the depth of incorporation. Water Incorporation: Incorporate using 12 to 25 mm of spray irrigation or rainfall within 10 days of application. The area should not be disturbed by cultivation for the expected duration of weed control where this method of application is used. If excessive irrigation or rainfall occurs after the application of Rifle 330, resulting in the movement of soil from the top to the bottom of the planting drill, weed control will be reduced.
	Blue top (blue billygoat weed)		3 L/ha plus atrazine at 1.5 kg ai/ha or diuron at 1.5 kg ai/ha	For other broadleaf weeds higher rates of atrazine or diuron can be tank mixed with Rifle 330 - see the relevant atrazine or diuron labels for details.
	Barnyard grass Blackberry nightshade Blue top (Blue billygoat weed) Common sida Giant/black pigweed Glossy nightshade Green amaranth <i>Ipomea</i> spp. Liverseed grass Milkweed (Mexican fire plant) Pigweed		3 L/ha plus 400mL/ha Flame* Herbicide	Incorporate into the soil within 7 days of application, either by overhead irrigation, rainfall or mechanical incorporation, to a minimum depth of 5 cm. Read all directions for use in sugar cane on the Flame Herbicide label.

5. Post-Plant and Flushing: Rifle 330 Tank Mixtures

Combine sown rice	Barnyard grass Silvertop grass (brown beetle grass) Starfruit	Qld, NSW and NT only	3 L/ha plus propanil at 1.8 kg ai/ha	Apply this tank mixture up to the 2 leaf stage of barnyard grass and 1 leaf stage of silvertop. Apply by ground rig in 70-100 L/ha or by aircraft in 25-30 L/ha total spray volume. Water Management: Flush immediately after sowing to enable a good even germination of rice. The soil surface must be sealed by a flushing irrigation or rainfall before the application of Rifle 330 plus propanil. Apply a second flush or permanent flood after 2 days but not later than 5 days after the application of Rifle 330 plus propanil. To assist in the control of barnyard grass, permanent water should be applied as soon as the rice can tolerate it and levels maintained for optimum growth of rice. Rice Stage: After the first flushing irrigation the stage of rice at application of Rifle 330 plus propanil is not critical and timing should be based on the stage of weed growth and water management. However, do NOT apply to rice in a weakened condition from causes such as soil salts, moisture stress, overwatering, or any other cause. Some transient leaf burn of the rice may result after the application of Rifle 330 plus propanil but no long term effects will result from this leaf burn. Rice seed should be covered with (cont'd over)
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Crop	Weeds Controlled	State	Rate	Critical Comments
Combine sown rice (<i>cont'd</i>)		Qld, NSW and NT only		(cont'd) at least 1 cm of water after the first flushing irrigation before Rifle 330 plus propanil is applied to germinating rice seed.
Combine sown rice and pasture sod sown rice	Barnyard grass Silvertop grass Starfruit Annual sedges* *Suppression only		3 or 4.5 L/ha plus paraquat at 200 g ai/ha	Use the higher rate when sowing into pasture sod sown rice for annual sedge control or when more than 10 days is expected between treatment and permanent water. Apply this tank mix up to the 3 leaf stage of barnyard grass, silvertop and sedges, before rice emergence. Apply by ground rig in 70-100 L/ha of water total spray volume. Water Management: Flush immediately after sowing to enable a good even germination of rice. The soil surface must be sealed by a flushing irrigation or rainfall before the application of Rifle 330 plus paraquat. Apply a second flush or permanent flood after 1 day but not later than 5 days after the application of Rifle 330 plus paraquat. To assist in the control of barnyard grass, permanent water should be applied as soon as the rice can tolerate it and levels maintained for optimum growth of rice. Rice Stage: After the first flushing irrigation, Rifle 330 plus paraquat must be applied before rice emergence. Do NOT apply to rice in a weakened condition from causes such as soil salts, moisture stress, over-watering, or any other cause.

6. Pre-Transplant Treatment

Transplanted broccoli, cabbage and cauliflower	See Weed Table D	Qld, NSW, Vic, SA, Tas and WA only	2 to 3 L/ha	Apply Rifle 330 to a firm seedbed free of ridges, clods and trash between 7 and 2 days before transplanting. Use the higher rates on heavier textured soils or those with a higher organic matter content. Incorporate with 12 to 25 mm of spray irrigation or rainfall applied within one day of application for optimum performance. Mechanical disturbance to the seed bed at transplanting should be minimised to achieve optimum performance. Do NOT apply after transplanting as damage will occur. Do NOT apply where water logging is likely to occur after transplanting or crop stunting will result. Do NOT use Rifle 330 on soils with an organic matter content above 6% as inconsistent weed control will occur. Ramrod may be tank mixed with Rifle 330 prior to transplanting or applied separately after transplanting.
	Weed Table D plus Dwarf amaranth Green amaranth Annual nettles Indian hedge mustard Potato weed Sowthistle, Turnip weed Wild Radish, Wild Turnip Winter grass		2 to 2.5 L/ha plus 9 L/ha Ramrod® SC	
Transplanted lettuce	See Weed Table D	Qld, NSW, Vic, SA and WA only	2 to 4 L/ha	

7. Perennial Crops

Avocados, bananas, citrus, deciduous fruits, grapevines, lychees, macadamia nut, mangoes, nuts	Dwarf amaranth, Green amaranth, Annual ryegrass, Asthma plant Barnyard grass, Chickweed Crowsfoot grass, Deadnettle Fat hen Pigeon grass, Pigweed Prickly lettuce Sowthistle, Summer grass, Winter grass, Wireweed	All States	9 to 12 L/ha	Do NOT apply Rifle 330 to grapevines after bud swell. Precaution: Apply Rifle 330 to dormant grapevines before buds start to swell, (E-L Growth Stage 02). Application at or after bud swell, and around the later bud burst (E-L Growth Stage 05) can result in damage to grapevines from vapour especially if Rifle 330 is not fully incorporated – see below. Rifle 330 or Rifle 330 plus simazine is likely to affect the emergence and growth of green manure crops such as oats or beans between rows of trees or vines, if they are sown into the treated band within 12 months of application. Use the higher rate on medium to heavy textured soils and the lower rate on light textured soils. Use a directed spray avoiding spray contact with green bark, fruit and foliage. (cont'd over)
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Crop	Weeds Controlled	State	Rate	Critical Comments
Avocadoes, bananas, citrus, deciduous fruits, grapevines, lychees, macadamia nut, mangoes, nuts	As above plus Prairie grass Spotted medic	All States	12L/ha	(cont'd) If applied to freshly transplanted trees or vines, soils should be compacted prior to application of Rifle 330 to avoid contact with roots. Crop damage and/or reduced weed control may result if Rifle 330 is not incorporated successfully. If insufficient rainfall follows within 10 days after application the product must be incorporated over the whole surface area treated through the use of overhead sprinklers or by mechanical means, using appropriate equipment to avoid root damage. Drip irrigation is inadequate for this purpose. A minimum of 10-15 mm of rain or sprinkler irrigation is normally required to incorporate Rifle 330 into the soil. For best results, soil surface should be free of weeds, surface litter and clods at the time of application. If small weeds are present at the time of application, Rifle 330 should be tank mixed with a knockdown herbicide at the recommended rate. Caution: Use of simazine mixtures could lead to crop damage on vines younger than 3 years of age. Refer to the simazine label. Do NOT apply simazine mixtures to alkaline soils.
Citrus, deciduous fruits, grapevines and nuts	As above plus Cobbler's pegs Curious weed Stinking Roger	All States	9 L/ha plus simazine at 800 g ai/ha	Caution: Use of simazine mixtures could lead to crop damage on vines younger than 3 years of age. Refer to the simazine label. Do NOT apply simazine mixtures to alkaline soils.
	As above plus Caltrop		12 L/ha plus simazine at 1 kg ai/ha	
Established lucerne seed crops only	Fat hen, Summer grass	NSW and SA only	3 L/ha	During the spring months prior to irrigation, the lucerne stand should be grazed down hard to produce a low trash soil surface. Apply Rifle 330 and incorporate treatment by 12-25 mm of spray irrigation or rainfall within one day of application.
	As above plus Pigeon grass		4.5 L/ha	
Eucalypt forestry plantation	Amaranths Annual rye Grass Asthma Plant Barnyard grass Chickweed Crowsfoot grass Dead nettle Fat hen Pigeon grass Pigweed Prickly lettuce Stagger weed Sow thistle Summer grass Winter grass Wireweed	All States	9L to 12 L/ha	Pre-Planting: Apply 7 to 2 days prior to transplanting. Use the higher rate on heavier textured soils or soils with higher organic matter. Mechanical disturbance should be minimised during planting to optimise performance. Post-Planting: Apply immediately following planting, before emergence of weeds. Repeat applications may be made as directed sprays to provide pre-emergence control of weeds. Emerged weeds should be controlled with carefully directed applications of a non-selective herbicide or over-the-top application of a selective herbicide. If applied to freshly transplanted trees, soils should be compacted prior to application to avoid contact with roots. Weed control may be reduced if rainfall or irrigation does not occur within 10 days of application. Flood irrigation may reduce control.
Pyrethrum Pre-emergence of Crop	See Weed Table D	Tas only	2-3L/ha	Apply Rifle 330 to seedbed within 10 days of sowing, prior to pyrethrum emergence. Apply at the lower rate on sandy soils. Incorporate with 12-25mm of rainfall or irrigation within 1 day of application for optimum performance
Pyrethrum-newly transplanted "splits"	Seedling docks Useful suppression of following weeds is also obtained: Capeweed Erodium spp. Spear thistle	Tas only	5 L/ha	Apply immediately following transplanting before emergence of weeds. Repeat applications in any one year should only be made according to advice from crop advisers. Use lower rates on light soils. This product should be used in combination with other registered herbicides as recommended by crop advisers.
Established pyrethrum (one year old or greater)				Apply in autumn or spring prior to weed germination. Note existing weeds must be controlled with a knockdown herbicide, as Rifle 330 will not control these weeds, Repeat applications in any one year should only be made according to advice from crop advisers. This product should be used in combination with other registered herbicides as recommended by crop advisers.

Crop	Weeds Controlled	State	Rate	Critical Comments	
Teatree	Weed Table B plus Dwarf amaranth, Green amaranth, Annual ryegrass, Barnyard grass, Chickweed Crowsfoot grass, Deadnettle Fat hen, Pigeon grass, Pigweed prickly lettuce Sowthistle, Summer grass, Winter grass, Wireweed	NSW, Qld, SA and NT only	4.5 to 9 L/ha	Do NOT tank mix with simazine as crop damage may result. For best results the soil surface should be free of weeds, surface litter and clods at the time of application. Pre-Transplanting: Apply 7 to 2 days prior to transplanting seedlings. Use the higher rates on heavier textured soils or soils with higher organic matter. Mechanical disturbance should be minimised during planting to optimise performance. Avoid contact of treated soil with seedling roots. Post-Planting: Apply immediately following planting and pre-emergence of weeds. If applied to freshly transplanted trees, soils should be compacted prior to application of Rifle 330 to avoid contact with roots. Weed control may be reduced if rainfall or irrigation does not occur within 10 days of application. Flood irrigation may reduce control.	
8. Established Turf					
Turf Warm Season Species. Bahia grass, Buffalo grass, Couch, Kikuya, Salt water couch and Zoysia grass turf	Crowsfoot (Crab grass), Summer grass, winter grass	All States, ACT and NT	4.5 L/ha or 45 mL/100 m ²	The product should be incorporated by 10-15 mm of spray irrigation or rainfall as soon as possible within one day of application. Apply once every 10 weeks from early September to the end of February.	
Queensland blue couch, Hybrid couch c.v. Tifdwarf			3 L/ha or 30 mL/100 m ²		
Turf Cool Season Species. Kentucky blue grass			4.5 L/ha or 45 mL/100 m ²		The product should be incorporated by 10-15 mm of spray irrigation or rainfall as soon as possible within one day of application.
Bent grass, Perennial ryegrass			3 L/ha or 30 mL/100 m ²		Do NOT make more than one application of Rifle 330 per year. (Refers to ryegrass, bent grass only).
9. Irrigation Channels					
Cotton irrigation banks, channels and drains	Barnyard grass, Silvertop grass (Brown beetle grass)	Qld and NSW only	4.5 to 9 L/ha	Use the lower rate when short term control is required. Apply in late winter or early spring after regrading or clearing channels. The soil should be loose and free of large clods. If 25-50 mm of rainfall has not fallen within 14 days of application the channel should be filled with water and allowed to stand for 1 day. The water in the channel should then be drained off and used to pre-irrigate cotton fields. Do NOT use water in channel to irrigate or pre-irrigate susceptible crops.	
			6 L/ha plus diuron at 8.1 kg ai/ha	Use this mixture where long term control is required or a broader weed spectrum is present. See diuron label for details. Water in the channel should NOT be used to irrigate or pre-irrigate susceptible crops.	

NOT TO BE USED FOR ANY PURPOSE, OR IN ANY MANNER, CONTRARY TO THIS LABEL UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION.

WITHHOLDING PERIOD: NOT REQUIRED WHEN USED AS DIRECTED.

WEED TABLE**A. In Cotton, Cow Peas, Mung Beans, Navy Beans, Peanuts, Pigeon Peas, Soybeans, Sunflowers - with pre-plant incorporated treatment (double incorporation).**

The following weeds are controlled:

Barnyard grass	<i>Echinochloa spp.</i>	Native millet	<i>Panicum decompositum</i>
Button grass	<i>Dactyloctenium radulans</i>	Pale pigeon grass	<i>Setaria glauca</i>
Common heliotrope	<i>Heliotropium europeum</i>	Paspalidium (Brigalow grass)	<i>Paspalidium sp.</i>
Crested goosefoot	<i>Chenopodium cristatum</i>	Pepper grass	<i>Panicum whitei</i>
Crowsfoot grass	<i>Eleusine indica</i>	Pigweed	<i>Portulaca oleracea</i>
Dwarf amaranth	<i>Amaranthus macrocarpus</i>	Queensland blue grass	<i>Dichanthium sericeum</i>
Early spring grass	<i>Eriochloa sp.</i>	Red Flinders grass	<i>Iseilema vaginiflorum</i>
Fat hen	<i>Chenopodium album</i>	Scarlet pimpernel	<i>Anagallis arvensis</i>
Green amaranth	<i>Amaranthus viridis</i>	Small burr grass	<i>Tragus australianus</i>
Liverseed grass	<i>Urochloa panicoides</i>	Stink grass	<i>Eragrostis cilianensis</i>
Mexican clover (white eye)	<i>Richardia brasiliensis</i>	Weeping love grass	<i>Eragrostis parviflora</i>
Mossman River grass	<i>Cenchrus echinatus</i>	Wireweed	<i>Polygonum aviculare</i>

Useful suppression of the following weeds is also obtained.

Blackberry nightshade	<i>Solanum nigrum</i>	Mintweed	<i>Salvia reflexa</i>
Caltrop	<i>Tribulus terrestris</i>	Peppergrass	<i>Lepidium spp.</i>
Common verbena	<i>Verbena officinalis</i>	Stagger weed	<i>Stachys arvensis</i>

B. In Cotton, Sunflower, Maize and Teatree - with post-plant pre-emergence surface treatment (Rifle 330 alone).

The following weeds are controlled:

Barnyard grass	<i>Echinochloa spp.</i>	Pale pigeon grass	<i>Setaria glauca</i>
Button grass	<i>Dactyloctenium radulans</i>	Paspalidium (Brigalow grass)	<i>Paspalidium sp.</i>
Common heliotrope	<i>Heliotropium europeum</i>	Pepper grass	<i>Panicum whitei</i>
Crested goosefoot	<i>Chenopodium cristatum</i>	Pigweed	<i>Portulaca oleracea</i>
Crowsfoot grass	<i>Eleusine indica</i>	Queensland blue grass	<i>Dichanthium sericeum</i>
Dwarf amaranth	<i>Amaranthus macrocarpus</i>	Red Flinders grass	<i>Iseilema vaginiflorum</i>
Early spring grass	<i>Eriochloa sp.</i>	Scarlet pimpernel	<i>Anagallis arvensis</i>
Green amaranth	<i>Amaranthus viridis</i>	Small burr grass	<i>Tragus australianus</i>
Liverseed grass	<i>Urochloa panicoides</i>	Stink grass	<i>Eragrostis cilianensis</i>
Mexican clover (white eye)	<i>Richardia brasiliensis</i>	Weeping love grass	<i>Eragrostis parviflora</i>
Mossman River grass	<i>Cenchrus echinatus</i>	Wireweed	<i>Polygonum aviculare</i>
Native millet	<i>Panicum decompositum</i>		

Useful suppression of the following weeds is also obtained.

Caltrop	<i>Tribulus terrestris</i>	Mintweed	<i>Salvia reflexa</i>
Common sowthistle	<i>Sonchus oleraceus</i>	Peppergrass	<i>Lepidium spp.</i>
Common verbena	<i>Verbena officinalis</i>	Stagger weed	<i>Stachys arvensis</i>

WEED TABLE**C. In Maize - with post-plant pre-emergence surface treatment of Rifle 330 plus tank mix with atrazine.**

The following weeds are controlled in addition to those controlled by Rifle 330 alone:

Bathurst burr	<i>Xanthium spinosum</i>	Noogoora burr	<i>Xanthium pungens</i>
Caltrop	<i>Tribulus terrestris</i>	Paddy melon	<i>Cucumis spp.</i>
Mintweed	<i>Salvia reflexa</i>	Thornapple	<i>Datura sp.</i>

The following weeds are not controlled by Rifle 330 or the mixture with atrazine:

Bindweed	<i>Convolvulus sp.</i>	Nut grass	<i>Cyperus rotundus</i>
Wandering jew	<i>Commelina spp.</i>		

D. In Carrots, Processing Peas, French Beans, Transplanted Cabbage, Cauliflower, Broccoli and Lettuce - with pre-emergence surface treatment after planting or before transplanting as directed and incorporated by spray irrigation.

The following weeds are controlled:

Awnless barnyard grass	<i>Echinochloa colona</i>	Fat hen	<i>Chenopodium album</i>
Bittercress	<i>Coronopus didymus</i>	Green fat hen	<i>Chenopodium murale</i>
Bladder ketmia	<i>Hibiscus trionum</i>	Pigweed	<i>Portulaca oleracea</i>
Chickweed	<i>Stellaria media</i>	Prickly lettuce	<i>Lactuca serriola</i>
Deadnettle	<i>Lamium amplexicaule</i>	Shepherd's purse	<i>Capsella bursa-pastoris</i>
		Wireweed	<i>Polygonum aviculare</i>

Useful suppression only of the following weeds at the lower rates. Higher rates or tank mixtures are required for complete control (see Directions for Use table).

Annual nettles	<i>Urtica spp.</i>	Indian hedge mustard	<i>Sisymbrium orientale</i>
Blackberry nightshade	<i>Solanum nigrum</i>	Turnip weed	<i>Rapistrum rugosum</i>
Common sowthistle	<i>Sonchus oleraceus</i>	Wild radish	<i>Raphanus raphanistrum</i>
Fumitory	<i>Fumaria spp.</i>	Winter grass	<i>Poa annua</i>

GENERAL INSTRUCTIONS

Rifle 330 Herbicide is a selective herbicide for the control of most annual grasses and certain broadleaf weeds. Rifle 330 controls weeds by inhibiting seedling development; it will not control established weeds. For best results, seedbeds should be free of weeds, trash and clods at the time of application. Soils containing a high percentage of organic matter can result in poor control. It is recommended that application to soils containing a high percentage of organic matter (greater than 6%) be avoided. Crop injury may result if cold, wet weather follows planting or if Rifle 330 is applied to a poorly prepared seedbed. With the return of favourable growing conditions (warm weather), the crop will usually recover and resume normal growth. Rifle 330 will stain (yellow) any objects it contacts. Keep all objects, etc. that are not to be stained well clear of the product and spray.

MIXING

Put half the required volume of water in spray tank and start agitation. When using Rifle 330 alone, add Rifle 330 to partially filled tank and then add the remainder of the water. Mix thoroughly. When using Rifle 330 in tank mixes with products such as atrazine or diuron, mix these products as indicated on the relevant label and add the Rifle 330 last, then complete filling of the tank. Maintain good agitation at all times until spraying is completed. If the spray mixture is allowed to settle, thorough agitation is essential to re-suspend the mixture before spraying is resumed. Note that when tank mixing Rifle 330 with paraquat and glyphosate herbicides, the Rifle 330 should be thoroughly mixed in the spray tank first, before adding a paraquat or glyphosate product.

APPLICATION METHOD***Ground Application***

Use conventional sprayers with either mechanical or by-pass agitation. Flat fan nozzles should be used. Spray equipment should be correctly calibrated to ensure proper application. If applying Rifle 330 in tank mix combination with atrazine or diuron, nozzle screens must be no finer than 50 mesh. Apply the recommended quantity of Rifle 330 in 50-200 Litres of water per hectare. Where pre-emergence surface treatment is used, the higher rates of water are recommended.

Aerial Application

Pre-plant soybeans, cotton, sunflowers, peanuts, navy beans, cowpeas, mung beans, pigeon peas and post-plant, post flushed combine sown rice only. Apply the recommended quantity of Rifle 330 in 25-60 Litres of water per hectare. It is essential that the equipment is correctly calibrated and an even spray pattern is obtained. It is essential that markers be used and an accurate swath width is maintained. Do NOT apply if wind speed is greater than 16 km/hour. Always spray with a cross wind in accordance with recommended flying practice.

Incorporation

- (a) Rifle 330 works best if thoroughly mixed with soil either mechanically or by irrigation or rainfall. The aim of incorporation is to produce an even band of herbicide to intercept germinating weed seeds.
- (b) Post-plant pre-emergence surface applications of Rifle 330 alone, or as a tank mixture, are most effective in controlling weeds when adequate rainfall occurs or irrigation is applied within 7-10 days after treatment to achieve incorporation. If no rain or irrigation is received within 7-10 days, light mechanical incorporation is required for optimum weed control, except when used on maize, carrots and rice.
- (c) Maize is tolerant to Rifle 330 either alone or in mixtures with atrazine if the seed germinates below the chemically treated band. Maize, carrots and rice are NOT tolerant to Rifle 330 if it is in direct contact with the seed.
- (d) In crops such as grapevines that can be susceptible to damage to new growth by vapour, adequate and complete incorporation should occur within 7 to 10 days of application and before new bud tissue is evident, i.e., prior to budswell (E-L Growth Stage 02). Incorporation should occur over the whole sprayed surface either by rain or by an irrigation method that wets the whole treated surface. Alternatively, incorporate mechanically using equipment which will not damage grapevine roots. Drip irrigation is usually unsatisfactory for this purpose. A minimum 10-15 mm of rain or irrigation is required for satisfactory incorporation.

CEREAL SEED DRESSING

Some fungicidal seed dressings can shorten coleoptile length and this can effect emergence particularly if seed is sown too deep. When these cereal seed dressings are used in Rifle 330 treated areas it is very important to ensure there is good seed depth control and to sow just below (1 cm) the chemically treated band. Consult your local Department of Agriculture Agronomist for further advice.

WEATHER CONDITIONS AT PLANTING

Crop injury may result if cold weather follows planting. With the return of favourable growing conditions (warm weather), crops usually recover and resume normal growth. In cereals, prolonged cold wet conditions during germination and emergence can result in wheat or barley coleoptiles remaining in the treated band for an extended period. This can reduce emergence.

RESISTANT WEEDS WARNING

GROUP **D** HERBICIDE

Rifle 330 Herbicide is a member of the dinitroaniline group of herbicides. Rifle 330 has the inhibition of tubulin formation mode of action. For weed resistance management, Rifle 330 is a Group D herbicide. Some naturally-occurring weed biotypes resistant to Rifle 330 and other Group D herbicides may exist

through normal genetic variability in any weed population. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds will not be controlled by Rifle 330 or other Group D herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Nufarm Australia Limited accepts no liability for any losses that may result from the failure of Rifle 330 to control resistant weeds.

COMPATIBILITY

Rifle 330 is compatible with the following herbicides: Atrazine, diuron, simazine, prometryne, fluometuron, fluometuron plus prometryne, ametryne, paraquat, propanil, linuron, glyphosate and Ramrod*. If tank mixing, observe the directions under mixing.

FOLLOWING CROPS

In the event of crop failure the soil should be cultivated to a minimum depth of 15 cm to ensure any residues are evenly dispersed throughout the soil. If a maize crop fails due to weather conditions or some other reason, maize can be replanted the same year without adverse effects but seeding depth must be below the retilled area.

The following crops may be sown after a minimum interval of 2 months after application of Rifle 330

Carrots, parsnips, parsley, celery, potatoes, peas, French beans, transplanted Brassicas, transplanted lettuce, transplanted tomatoes, transplanted capsicums.

The following crops may be sown after a minimum interval of 5 months after application of Rifle 330

Turnips, lettuce, radish, Brussel sprouts, cabbage, cauliflower, broccoli, onions, leeks, sweet corn, pumpkins, squash, melons, cucumbers.

The following crops may be sown after a minimum interval of 12 months after application of Rifle 330

Redbeet (beetroot), spinach, silverbeet, poppy.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

Do NOT apply under weather conditions or from spraying equipment that may cause spray to drift onto nearby susceptible plants/crops, cropping lands or pastures.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

Dangerous to fish and other aquatic life.

Do NOT contaminate streams, rivers or waterways with the chemical or used containers.

STORAGE AND DISPOSAL

Store in the closed, original container in a dry, cool well-ventilated area out of direct sunlight.

Do not store below 5°C. Extended storage below 5°C can result in the formation of crystals on the bottom of the container. If crystallisation does occur, store the container on its side at room temperature and rock

occasionally until crystals re-dissolve.

Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do NOT dispose of undiluted chemicals on-site. If recycling, replace cap and return clean containers to recycler or designated collection point.

If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

Refillable containers: Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

Envirodrum 110 L Mini Bulk Returnable Container:

Store the original sealed Envirodrum in a cool, well ventilated area. Do not store for prolonged periods in direct sunlight. Do not tamper with the Micro Matic valve or the security seal. Do not contaminate the Envirodrum with water or any other foreign matter. After each use of the product, please ensure that the Micro Matic coupler, delivery system and hoses are disconnected, triple rinsed with clean water and drained accordingly. When the contents of the Envirodrum have been used, please return the empty Envirodrum to the point of purchase. The Envirodrum remains the property of Nufarm Australia Limited.

SMALL SPILL MANAGEMENT

Wear protective equipment (See Safety Directions). Apply absorbent material such as earth, sand, clay granules or cat litter to the spill. When absorption is complete, sweep up material and contain in a refuse vessel for disposal. (See Storage and Disposal section). If necessary, wash the spill area with an alkali detergent and water and absorb as above the wash liquid for disposal.

SAFETY DIRECTIONS

Harmful if swallowed. Will irritate the eyes, nose, throat and skin. Avoid contact with eyes and skin. Do not inhale vapour. When preparing spray and using the prepared spray wear a face shield or goggles, cotton overalls buttoned to the neck and wrist (or equivalent clothing) and elbow length nitrile gloves. If product on skin, immediately wash area with soap and water. If product in eyes, wash it out immediately with water. Wash hands after use. After each day's use, wash face shield or goggles, gloves and contaminated clothing.

FIRST AID

If poisoning occurs, contact a Doctor or Poisons Information Centre (Phone 13 11 26). If swallowed, DO NOT induce vomiting. Give a glass of water.

MATERIAL SAFETY DATA SHEET (MSDS)

For further information refer to the Material Safety Data Sheet (MSDS).

CONDITIONS OF SALE

"Nufarm Australia Limited ('Nufarm') shall not be liable for any loss injury damage or death whether consequential or otherwise whatsoever or howsoever arising whether through negligence or otherwise in connection with the sale supply use or application of this product. The supply of this product is on the express condition that the purchaser does not rely on Nufarm's skill or judgment in purchasing or using the same and every person dealing with this product does so at his own risk absolutely. No representative of Nufarm has any authority to add to or alter these conditions."

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In case of emergency: Phone 1800 033 498

Ask for shift supervisor. Toll free 24 hours.

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