

Product Name: RELYON ISOXAFLUTOLE 750 WG HERBICIDE  
APVMA Approval No: 82230/129350



Label Name:	RELYON ISOXAFLUTOLE 750 WG HERBICIDE
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Signal Headings:	CAUTION KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
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Constituent Statements:	ACTIVE CONSTITUENTS: 750g/kg ISOXAFLUTOLE
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Mode of Action:	GROUP <b>H</b> HERBICIDE
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Statement of Claims:	For the control and suppression of various broadleaf weeds and grasses in sugarcane and chickpeas as specified in the Directions For Use Table
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Net Contents:	500g – 15kg
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Restraints:	<p><b>RESTRAINTS</b></p> <p><b>ALL CROPS:</b> DO NOT apply by aircraft.</p> <p><b>SUGARCANE:</b> DO NOT apply with wetting agents, crop oils or other adjuvants. DO NOT apply to poorly drained soils, e.g. soils prone to waterlogging, sodic soils or soils affected by physical compaction. DO NOT apply to crops with poor root development or to crops under stress from waterlogging, drought, nutrient deficiency or disease. DO NOT apply to soils of cation exchange capacity (C.E.C.) below 4.5 meq/100 g. DO NOT apply to soils with organic carbon content of 1.0% or less, unless the cation exchange capacity (C.E.C.) is above 9.5 meq/100 g. These values should be determined through soil analysis prior to using RELYON ISOXAFLUTOLE 750 WG HERBICIDE.</p>
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Directions for Use:	This section contains file attachment.
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Other Limitations:	
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Withholding Periods:	<p>WITHHOLDING PERIODS</p> <p>SUGARCANE: HARVEST: DO NOT HARVEST FOR 19 WEEKS AFTER APPLICATION GRAZING: DO NOT GRAZE ANIMALS ON TREATED CROPS</p> <p>CHICKPEAS: HARVEST: NOT REQUIRED WHEN USED AS DIRECTED GRAZING: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 4 WEEKS AFTER APPLICATION</p>
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Trade Advice:	
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General Instructions:	This section contains file attachment.
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Resistance Warning:	<p>RESISTANT WEEDS WARNING GROUP H HERBICIDE</p> <p>RELYON ISOXAFLUTOLE 750 WG HERBICIDE is a member of the isoxazole group of herbicides. RELYON ISOXAFLUTOLE 750 WG HERBICIDE is a herbicide which inhibits 4-hydroxyphenyl-pyruvate dioxygenase (4-HPPD). For weed resistance management RELYON ISOXAFLUTOLE 750 WG HERBICIDE is a Group H herbicide. Some naturally occurring weed biotypes resistant to RELYON ISOXAFLUTOLE 750 WG HERBICIDE, and other Group H 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 RELYON ISOXAFLUTOLE 750 WG HERBICIDE or other Group H herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Nutrien Ag Solutions Limited accepts no liability for any losses that may result from the failure of RELYON ISOXAFLUTOLE 750 WG HERBICIDE to control resistant weeds.</p>
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Precautions:	<p>RE-ENTRY PERIOD DO NOT allow entry into treated areas for 12 hours after treatment. When prior entry is necessary, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and chemical resistant gloves. Clothing must be washed after each day's use.</p>
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Protections:	<p>PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT DO NOT contaminate streams, rivers or watercourses with this product or the used containers, as this product may cause injury to non-target plants and vegetation, particularly aquatic plants and algae.</p>
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PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

DO NOT apply under weather conditions, or from spraying equipment, which could be expected to cause spray to drift onto nearby susceptible plants/crops, cropping lands or pastures.

Storage and Disposal:

KEEP OUT OF REACH OF CHILDREN

Store in the closed, original container in a dry, cool, well-ventilated area. Do not store for prolonged periods in direct sunlight.

Triple-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 deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations. Do not burn empty containers or product.

This container can be recycled if it is clean, dry, free of visible residues and has the drumMUSTER logo visible. Triple-rinse container for disposal. Dispose of rinsate by adding it to the spray tank. Do not dispose of undiluted chemical on site. Wash outside of the container and the cap. Store cleaned container in a sheltered place with cap removed. It will then be acceptable for recycling at any drumMUSTER collection or similar container management program site. The cap should not be replaced, but may be taken separately.

Safety Directions:

Will irritate the eyes and skin. Avoid contact with eyes and skin. When opening the container and preparing spray wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) a washable hat, elbow-length PVC gloves and face shield or goggles. When using the prepared spray wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) a washable hat and elbow-length PVC gloves. If product in eyes, wash it out immediately with water. Wash hands after use. After each days use, wash gloves, face shield or goggles and contaminated clothing.

First Aid Instructions:

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26, New Zealand 0800 764 766.

First Aid Warnings:

CROP	WEEDS CONTROLLED	STATES	RATE	CRITICAL COMMENTS
Sugarcane	PRE WEED EMERGENCE: Barnyard grass, billygoat weed (blue top), blackberry nightshade, crowsfoot grass, green summer grass, guinea grass, summer grass, thick head	QLD, NSW, WA only	200 g/ha	<p>GENERAL:            RELYON ISOXAFLUTOLE 750 WG HERBICIDE can be applied to hot and dry soils, without the risk of breakdown by sunlight. For effective weed control, incorporation by rainfall or irrigation to the weed root zone is required, but immediate soil incorporation is not critical due to the ultraviolet stability of RELYON ISOXAFLUTOLE 750 WG HERBICIDE. See 'Crop Safety' and 'Application' under General Instructions.</p> <p>PRE TO EARLY POST-EMERGENCE OF PLANT CANE:            May be applied as a broadcast or band spray 'over the top' of plant cane from planting up to the 3 to 4 leaf crop stage. Add Paraquick 250 Herbicide at label rates where green cane leaf has emerged at application, even if no weeds have emerged. DO NOT apply as a broadcast or band spray after the 4 leaf stage of plant cane. Beyond this stage, RELYON ISOXAFLUTOLE 750 WG HERBICIDE must only be applied as a directed spray (see PRIOR TO THE 'OUT-OF-HAND' STAGE OF PLANT AND RATOON CANE below). DO NOT apply to unconsolidated soil in the cutaway situation, where rainfall or irrigation may cause soil movement into the planting drill. DO NOT apply to shallow planted cane (e.g. less than 60 mm soil cover above the sett). A greater depth of soil cover is recommended where soils have a high infiltration rate.</p> <p>AFTER HARVEST OF RATOON CANE:            May be applied 'over the top' of cane as a broadcast or band spray up to the two-leaf crop stage. RELYON ISOXAFLUTOLE 750 WG HERBICIDE can be applied to burnt or trash blanketed ratoon cane. Avoid soil disturbance, e.g. stool splitting, after application. If weeds have emerged at application, add Paraquick 250 Herbicide at the appropriate label rate to provide improved weed knockdown.</p> <p>PRIOR TO THE 'OUT-OF-HAND' STAGE OF PLANT AND RATOON CANE:            Apply as a directed inter-row spray (e.g. Irvin leg) to the soil surface after the last working. Best results are obtained where the mound surface has consolidated to minimize soil and herbicide movement. Direct the spray to minimize contact with sugarcane foliage. DO NOT apply to sugarcane less than 0.75 m in height. If weeds have emerged at application, add Paraquick 250 Herbicide at the appropriate label rate to provide improved weed knockdown.</p>
	PRE WEED EMERGENCE: Weeds as above plus: Vines ( <i>Ipomoea</i> spp.)	QLD, NSW, only	200 g/ha + 1.6 kg/ha Diuron 900WG Herbicide	<p>AFTER HARVEST OF RATOON CANE AND PRIOR TO THE 'OUT-OF-HAND' STAGE OF PLANT AND RATOON CANE:            Apply as for RELYON ISOXAFLUTOLE 750 WG HERBICIDE alone (above). For best results diuron requires incorporation by rainfall or irrigation within 10 days of application.</p> <p>NB:            Application of diuron to crops planted in very light sandy or gravelly soils, or soils low in clay or organic matter may result in crop damage. Heavy rains after the application of diuron may cause severe crop damage.</p> <p>PRE TO EARLY POST-EMERGENCE OF PLANT CANE:            DO NOT apply RELYON ISOXAFLUTOLE 750 WG HERBICIDE in a tank mixture with diuron at this crop stage.</p>

CROP	WEEDS CONTROLLED	STATES	RATE	CRITICAL COMMENTS
Chickpeas	<p>WEEDS CONTROLLED: Capeweed, crassula, Indian hedge mustard, medic, prickly lettuce, sowthistle, turnip weed, wild radish</p> <p>WEEDS SUPPRESSED: Deadnettle, slender celery</p>	QLD, NSW, ACT, VIC, SA and WA only	100 g/ha	<p>PRE WEED EMERGENCE: Application can be made to dry or damp soil. Application should be made as soon as possible after planting prior to emergence of the crop. If applied during the planting operation ensure RELYON ISOXAFLUTOLE 750 WG HERBICIDE is applied after furrow closure. Failure to thoroughly close and firm the seed furrow may allow herbicide to directly contact the seed which may cause crop injury. If sowing with knife points or disc openers, ensure that herbicide cannot be concentrated in the sowing furrow by soil wash. Either close the furrow with harrows, or stabilize the furrow with press wheels. Mechanical incorporation is not recommended. Use a nozzle configuration to achieve a medium to coarse spray pattern.</p> <p>A minimum spray volume of 50 L/ha is recommended. Application of RELYON ISOXAFLUTOLE 750 WG HERBICIDE post-sowing pre-emergent to chickpeas planted in sandy or gravelly soils, or soils low in clay or organic matter may result in crop damage. Heavy rains after the application of RELYON ISOXAFLUTOLE 750 WG HERBICIDE may cause crop damage, particularly in sandy or gravelly soils.</p> <p>RELYON ISOXAFLUTOLE 750 WG HERBICIDE is NOT recommended for use on Yorker chickpeas. See "Crop Safety" in the GENERAL INSTRUCTIONS section below.</p>
	<p>WEEDS CONTROLLED: Capeweed, crassula, deadnettle, Indian hedge mustard, medic, prickly lettuce, silvergrass, slender celery, sowthistle, spear thistle, turnip weed, wild radish</p> <p>WEEDS SUPPRESSED: Saffron thistle, spiny emex, wireweed</p>		100 g/ha + 1.5 L/ha simazine (500 g/L SC)	<p>The Critical Comments for the use of RELYON ISOXAFLUTOLE 750 WG HERBICIDE alone in chickpeas (above) also apply to this section.</p> <p>Application of RELYON ISOXAFLUTOLE 750 WG HERBICIDE + simazine in sandy or gravelly soils may result in severe crop damage.</p>

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

## GENERAL INSTRUCTIONS

### CROP SAFETY

#### Chickpeas

Application of RELYON ISOXAFLUTOLE 750 WG HERBICIDE PSPE to chickpeas planted in sandy or gravelly soils, or soils low in clay or organic matter may result in crop damage. Heavy rains after the application of RELYON ISOXAFLUTOLE 750 WG HERBICIDE may cause crop damage, particularly in sandy or gravelly soils. Application of RELYON ISOXAFLUTOLE 750 WG HERBICIDE + simazine in sandy or gravelly soils may result in severe crop damage.

#### Varietal Tolerance

RELYON ISOXAFLUTOLE 750 WG HERBICIDE is NOT recommended for use with the chickpea variety Yorker. Application of RELYON ISOXAFLUTOLE 750 WG HERBICIDE post-sowing pre-emergent to crops of Yorker variety chickpeas can result in unacceptable crop damage and may result in yield loss.

#### Crop Rotation Recommendations

RELYON ISOXAFLUTOLE 750 WG HERBICIDE may be applied to chickpea crops where the following crop will be chickpeas, or where the land will be left fallow. The following re-cropping instructions apply to following crops other than chickpeas.

- Prolonged dry periods or cold conditions may result in extended re-cropping intervals, even if rainfall exceeds the required amount (listed in the table below). If in doubt, contact your local supplier, Nutrien Ag Solutions representative or local Department of Agricultural agronomist.
- Heavy rainfall after an extended dry period may result in the reactivation of RELYON ISOXAFLUTOLE 750 WG HERBICIDE. This can lead to transient bleaching or crop stunting.
- Use on soils with a pH less than 7.0 has not been extensively tested, and may result in extended re-cropping intervals.
- Cultivation is recommended prior to re-cropping.
- Minimum re-cropping intervals apply for all crops following RELYON ISOXAFLUTOLE 750 WG HERBICIDE application. For advice on crops not listed below, please contact your local supplier, Nutrien Ag Solutions representative or local Department of Agricultural agronomist.

CROP	MINIMUM RE-CROPPING INTERVAL	MINIMUM RAINFALL REQUIREMENT*	CROP	MINIMUM RE-CROPPING INTERVAL	MINIMUM RAINFALL REQUIREMENT*
wheat	10 weeks**	100 mm	lucerne	9 months	350 mm
barley	10 weeks**	100 mm	medic	21 months	500 mm
oats	10 weeks**	100 mm	maize	10 weeks**	100 mm
canola	9 months	350 mm	mung beans	7 months	250 mm
faba beans	9 months	250 mm	sorghum	7 months	250 mm
field peas	9 months	250 mm	soybeans	7 months	250 mm
lentils	21 months	500 mm	sunflowers	7 months	250 mm
clover	21 months	500 mm	cotton	7 months	350 mm

\*Minimum rainfall total from RELYON ISOXAFLUTOLE 750 WG HERBICIDE use until planting of the subsequent crop. DO NOT include flood or furrow irrigation in the minimum rainfall requirement.

\*\* RELYON ISOXAFLUTOLE 750 WG HERBICIDE has been tank-mixed with simazine, observe the re-cropping interval for simazine for wheat, barley, oat and maize.

#### Sugarcane

There are 3 key guidelines for maintaining crop safety when using RELYON ISOXAFLUTOLE 750 WG HERBICIDE in sugarcane.

1. DO NOT apply to soils with a low binding potential, that is with a C.E.C. below 4.5 meq/100 g, or an O.C. of 1.0% or less (unless C.E.C. is greater than 9.5 meq/100 g).
2. DO NOT apply to areas which have poor drainage or poor root development.
3. Add Paraquick 250 Herbicide to RELYON ISOXAFLUTOLE 750 WG HERBICIDE to minimize foliar uptake when applying as a broadcast spray to plant cane.

RELYON ISOXAFLUTOLE 750 WG HERBICIDE is adsorbed to organic matter and clay particles in the soil. Soils with low organic carbon (O.C.) and cation exchange capacity (C.E.C.) have a reduced capacity to absorb the herbicide in the soil, which may result in the herbicide leaching past the weed root zone into the cane root zone. Crop root uptake of RELYON

ISOXAFLUTOLE 750 WG HERBICIDE may result in phytotoxicity, which is evident as bleaching of leaves. To minimize the risk of crop root uptake, RELYON ISOXAFLUTOLE 750 WG HERBICIDE is not recommended for use on soil with a C.E.C. below 4.5 meq/100 g, or an O.C. of 1.0% or less (unless C.E.C. is greater than 9.5 meq/100 g).

These values should be determined through soil analysis prior to using RELYON ISOXAFLUTOLE 750 WG HERBICIDE. Refer to your local supplier, Nutrien Ag Solutions representative or local Department of Agricultural agronomist to assist you with interpretation of your soil analysis results.

The use of RELYON ISOXAFLUTOLE 750 WG HERBICIDE on newly limed soil could cause severe crop damage, please contact your local supplier, Nutrien Ag Solutions representative or local Department of Agricultural agronomist for advice prior to use of RELYON ISOXAFLUTOLE 750 WG HERBICIDE in this situation.

RELYON ISOXAFLUTOLE 750 WG HERBICIDE has been field tested on all important commercial varieties of sugarcane (available up to September 2002) without any evidence of varietal tolerance variation. If you are contemplating the use of RELYON ISOXAFLUTOLE 750 WG HERBICIDE on experimental or minor varieties of sugarcane, small test areas should be treated to establish suitable tolerance before treating large areas.

For further information on varietal tolerance please contact your local supplier, Nutrien Ag Solutions representative or local Department of Agricultural agronomist.

## **MIXING**

Partly fill the spray tank with water. Start agitation. Add the correct amount of RELYON ISOXAFLUTOLE 750 WG HERBICIDE to the spray tank with the agitation system running. When tank-mixing with Paraquick 250 Herbicide, ensure that RELYON ISOXAFLUTOLE 750 WG HERBICIDE is added to the spray mixture first, followed by Paraquick 250 Herbicide to ensure thorough mixing. Continue agitation while topping up the tank with water and while spraying. Use prepared spray mixture on day of preparation. DO NOT allow spray mixture to stand overnight.

## **TANK MIXTURES**

Read and follow all label directions including restraints, spray drift restraints, mandatory no-spray zones, critical comments, withholding periods, regional use restrictions and safety directions for the tank mix product.

## **APPLICATION**

### **Sugarcane**

Apply in a minimum spray volume of 250 L/ha. For best results flat fan nozzles are recommended. Select the lowest pressure (within the recommended nozzle operating range), to reduce drift. Use a nozzle size that delivers a medium to coarse droplet at the selected operating pressure.

RELYON ISOXAFLUTOLE 750 WG HERBICIDE can be applied to hot and dry soils, without the risk of breakdown by sunlight. This ultraviolet stability removes the need for immediate soil incorporation of the product. RELYON ISOXAFLUTOLE 750 WG HERBICIDE is activated by rainfall or irrigation, which is required to carry the herbicide into the root zone of the germinating weeds.

Weed escapes may occur after spraying RELYON ISOXAFLUTOLE 750 WG HERBICIDE if weed germination occurs before the chemical is activated OR carried to the depth of the weed root zone. Under prolonged dry conditions a greater quantity of rainfall or irrigation may be required for effective activation of the product. Under these conditions, shoots of germinating weeds may intercept the RELYON ISOXAFLUTOLE 750 WG HERBICIDE band and appear affected, but may not be controlled. Weeds that DO NOT turn completely white within days of emergence must be sprayed with an appropriate knockdown herbicide. To avoid weed escapes, it is recommended to allow weeds to germinate, and then apply RELYON ISOXAFLUTOLE 750 WG HERBICIDE in tank mixture with Paraquick 250 Herbicide at an appropriate label rate to provide additional weed knockdown.

Soil movement from irrigation or cultivation may result in poor weed control from RELYON ISOXAFLUTOLE 750 WG HERBICIDE. DO NOT incorporate RELYON ISOXAFLUTOLE 750 WG HERBICIDE by flood irrigation or with high-pressure water cannons if excessive soil movement is expected, particularly if the soil is in a loose, dry condition. Best results are achieved where rainfall or low pressure overhead irrigation carries the herbicide downward in an even band to the depth of the weed root zone.

## **COMPATIBILITY**

### **Sugarcane**

RELYON ISOXAFLUTOLE 750 WG HERBICIDE may be tank-mixed with Paraquick 250 Herbicide formulations at the appropriate label rates for each product.

RELYON ISOXAFLUTOLE 750 WG HERBICIDE may be tank-mixed with Harrow 900WG Herbicide (Diuron) at the rate recommended in the 'Directions For Use' table on this label.

RELYON ISOXAFLUTOLE 750 WG HERBICIDE is also compatible with Atrizon 900WG Herbicide (atrazine ) and Actril® DS (apply no more than 500 mL/ha in combination with RELYON ISOXAFLUTOLE 750 WG HERBICIDE).

\*Actril® is Registered Trademarks of Bayer.

#### **Chickpeas**

RELYON ISOXAFLUTOLE 750 WG HERBICIDE should NOT be tank-mixed with trifluralin.

#### **SPRAY EQUIPMENT CLEAN-UP**

To avoid injury or exposure to non-target crops, thoroughly clean all mixing and spray equipment, including pumps, nozzles, lines and screens with a good quality tank cleaner immediately after using RELYON ISOXAFLUTOLE 750 WG HERBICIDE.

Before disassembling nozzles, filters and other parts for cleaning, thoroughly wash down the exterior of the spray equipment with a pressure hose. A more rigorous cleaning process is recommended, particularly before spraying very sensitive crops (e.g. canola).

##### **To Rinse:**

After cleaning the tank as above, quarter fill the tank with clean water and circulate through the pump, lines, hoses and nozzles. Drain and repeat the rinsing procedure twice.

##### **To Clean:**

Empty the tank completely and drain the whole system. Without entering it, thoroughly wash inside the tank using a pressure hose. Alternatively, if the tank is fitted with in-tank rinse nozzles, activate these nozzles to thoroughly rinse the inside of the tank. Drain the tank and clean any tank, pump, line and nozzle filters.

##### **To Decontaminate:**

Quarter fill the tank and add a liquid alkali detergent at 500 mL/100 L of water or a chlorine bleach (4% chlorine) at 300 mL/100 L of water and circulate throughout the system for at least 15 minutes. Drain the whole system. Nozzles, screens, relief valves, dump lines, caps and taps at the end of spray lines, tank lids, flow meters, lines to pressure gauges, external tank indicators, induction hoppers and transfer systems should be removed/pulled apart and cleaned separately. Pay special attention to by-pass lines from pressure relief or dump valves to the main tank. To remove traces of chlorine bleach, flush the system with clean water and allow to drain.

**Rinse Water Should Be Discharged Onto A Designated Disposal Area Or If This Is Unavailable, Onto Unused Land Away From Desirable Plants And Their Roots, And Water Courses.**