Australian Pesticides & Veterinary Medicines Authority

Product Name: Wynca Pyroxasulfone 850 WG Herbicide
APVMA Approval No: 95725/147015

Label Name:	Wynca Pyroxasulfone 850 WG Herbicide

Signal Headings:	POISON KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING

Constituent Statements:	ACTIVE CONSTITUENT: 850 g/kg PYROXASULFONE

Mode of Action:	GROUP 15 HERBICIDE

Statement of Claims:	For the Pre-Emergence Control of Annual Ryegrass, Barley Grass, Annual Phalaris, Silver Grass and Toad Rush and Suppression of Certain Grass Weeds in Wheat (not Durum Wheat), Triticale and Certain Winter Legume Crops as specified in the Directions for Use.

Net Contents:	1.18 - 60 kg

Restraints:	This section contains file attachment.

Directions for Use:	This section contains file attachment.

Other Limitations:	

Withholding Periods:	GRAZING/STOCKFOOD Wheat and Triticale - DO NOT GRAZE OR CUT FOR STOCKFOOD FOR 6 WEEKS AFTER APPLICATION

	Chickpeas, Field Peas, Lentils, Lupins - DO NOT GRAZE OR CUT FOR STOCKFOOD FOR 8 WEEKS AFTER APPLICATION HARVEST All crops - NOT REQUIRED WHEN USED AS DIRECTED

Trade Advice:	

General Instructions:	This section contains file attachment.

Resistance Warning:	RESISTANT WEEDS WARNING GROUP 15 HERBICIDE Wynca Pyroxasulfone 850 WG Herbicide is a member of the isoxazoline group of herbicides and has the inhibitor of very long chain fatty acids (VLCFA inhibitors) mode of action. For weed resistance management Wynca Pyroxasulfone 850 WG Herbicide is a Group 15 herbicide. Some naturally-occurring weed biotypes resistant to Wynca Pyroxasulfone 850 WG Herbicide, and other Group 15 herbicides, may exist through normal genetic variability in any weed population. These resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds will not be controlled by Wynca Pyroxasulfone 850 WG Herbicide or other Group 15 herbicides. DO NOT rely exclusively on Wynca Pyroxasulfone 850 WG Herbicide for weed control. Use as part of an integrated weed management program involving herbicides with other modes of action and non-chemical methods of control. CropLife Australia resistance management strategies are available from your local agricultural chemical supplier or at the CropLife Australia website (www.croplifeaustralia.org.au). Refer to these strategies for details of how to manage the build-up of resistant weeds on your farm. Since the occurrence of resistant weeds is difficult to detect prior to use, ZHEJIANG XINAN CHEMICAL INDUSTRIAL GROUP CO., LTD accepts no liability for any losses that may result from the failure of Wynca Pyroxasulfone 850 WG Herbicide to control resistant weeds.

Precautions:	Re-entry Period DO NOT allow entry into treated areas until the spray has dried, unless wearing cotton overalls buttoned to the neck and wrist (or equivalent clothing) and elbow-length chemical resistant gloves. Clothing must be laundered after each day’s use.

Protections:	PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT Very toxic to aquatic life. DO NOT contaminate wetlands or watercourses with this product or used containers. DO NOT apply if heavy rain has been forecast within 48 hours. DO NOT apply unless incorporation by sowing (IBS) can be performed within 3 days of application. DO NOT apply to waterlogged soil. PROTECTION OF CROPS Undersown Pasture Species: DO NOT undersow with pasture species (legumes or grasses) following the application of Wynca Pyroxasulfone 850 WG Herbicide.

Storage and Disposal:	STORAGE AND DISPOSAL Store in the closed, original container in a dry, cool, well-ventilated area out of 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 container 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. DO NOT re-use container for any other purpose.

Safety Directions:	SAFETY DIRECTIONS May irritate the eyes and skin. Repeated exposure may cause allergic disorders. Avoid contact with eyes and skin. When using together with other products, consult their label safety directions. When opening the container, preparing spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist and elbow-length chemical resistant gloves. Wash hands after use. After each day's use, wash contaminated clothing.

First Aid Instructions:	FIRST AID INSTRUCTIONS If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26.

First Aid Warnings:	

Restraints
DO NOT apply with aircraft.
DO NOT plant durum wheat (*Triticum durum*) after the application of Wynca Pyroxasulfone 850 WG Herbicide (refer to Crop Rotation Recommendations for further advice).
DO NOT apply if heavy rain has been forecast within 48 hours.
DO NOT apply unless incorporation by sowing (IBS) can be performed within 3 days of application.
DO NOT apply to waterlogged soil.
DO NOT allow first irrigation tailwater from land treated with Wynca Pyroxasulfone 850 WG Herbicide to enter aquatic and wetland areas including aquacultural ponds, surface streams and rivers.

SPRAY DRIFT RESTRAINTS
Specific definitions for terms used in this section of the label can be found at apvma.gov.au/spraydrift

DO NOT allow bystanders to come into contact with the spray cloud.

DO NOT apply in a manner that may cause an unacceptable impact to native vegetation, agricultural crops, landscaped gardens and aquaculture production, or cause contamination of plant or livestock commodities, outside the application site from spray drift. The buffer zones in the relevant buffer zone table/s below provide guidance but may not be sufficient in all situations. Wherever possible, correctly use application equipment designed to reduce spray drift and apply when the wind direction is away from these sensitive areas.

DO NOT apply unless the wind speed is between 3 and 20 kilometres per hour at the application site during the time of application.

DO NOT apply if there are hazardous surface temperature inversion conditions present at the application site during the time of application. Surface temperature inversion conditions exist most evenings 1 to 2 hours before sunset and persist until 1 to 2 hours after sunrise.

DO NOT apply by a boom sprayer unless the following requirements are met:
- Spray droplets not smaller than a COARSE spray droplet size category.
- Minimum distances between the application site and downwind sensitive areas (see 'Mandatory buffer zones' section of the following table titled 'Buffer Zones for Boom Sprayers') are observed.

Buffer Zones for Boom Sprayers

Application Rate	**Boom height above the target canopy**	**Mandatory Downwind Buffer Zones**
		Natural Aquatic Areas
Up to maximum label rate	0.5 m or lower	120 metres

DIRECTIONS FOR USE

Crop	Weed	Rate	Critical Comments
Wheat (Not durum wheat), **Triticale, Chickpeas, Field Peas, Lentils, Lupins**	Annual ryegrass (*Lolium rigidum*), Annual Phalaris or Paradoxa grass (*Phalaris paradoxa* only), Barley grass (*Hordeum leporinum*), Silver grass (*Vulpia bromoides*, *Vulpia myuros*), Toad Rush (*Juncus bufonius*) Suppression* of: Great brome (*Bromus diandrus*), Wild Oats (*Avena fatua*) *Refer **Suppression of great brome and wild oat** in GENERAL INSTRUCTIONS for further details	118 g/ha	Apply pre-sowing and incorporate by sowing (IBS) using knife points and press wheels, or narrow points and harrows. For best results apply just before sowing (refer to **Interval between Application and Sowing** in **GENERAL INSTRUCTIONS**). Avoid throwing treated soil into adjacent crop rows when sowing with knife points and press wheels. To reduce the risk of crop affects refer to **Crop Safety** in **GENERAL INSTRUCTIONS.** *Cultivation:* To optimise weed control apply directly to uncultivated soil. Weed control may be greatly reduced where weed seeds have been buried by cultivation prior to sowing. *Rainfall soon after application*: • Weed control may be adversely affected by insufficient rainfall within 7 to 10 days after application. Adequate rainfall is necessary to facilitate uptake of the product by the germinating weed seeds, however the quantity of rainfall required will depend on many factors including stubble load, soil type, the existing soil moisture at sowing, the pattern of rainfall and other considerations. • In soils prone to leaching, rainfall which is sufficiently heavy to cause movement of the herbicide out of the weed seed zone may lead to reduced weed control. *Other factors which may adversely affect weed control include;* • uneven application, • application to ridged or cloddy soil, • stubble, plant residue or other ground cover particularly where this exceeds 50%, • germinated and emerged weeds that are not controlled by a knockdown herbicide, The factors above, when combined, may substantially reduce weed control. Competition provided by the crop can assist with the final weed control achieved by Pyroxasulfone. Chickpea, field pea, lentil and lupin crops may provide less competition than cereal crops, hence weeds that survive the application of Wynca Pyroxasulfone 850 WG Herbicide may grow taller (relative to the height of the crop), tiller more and generally give the appearance that weed control is poorer compared to weed control in wheat or triticale.

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

GENERAL INSTRUCTIONS

Wynca Pyroxasulfone 850 WG Herbicide is a residual, soil applied, pre-emergent herbicide. It is absorbed by the roots and to a lesser extent by the shoots of germinating weeds and works by inhibiting growth in the meristematic area. Weed control is optimised when Wynca Pyroxasulfone 850 WG Herbicide is applied evenly to moist soil just prior to incorporation by sowing and there is sufficient rainfall soon after sowing to ensure uptake of the herbicide by germinating weeds. Weed control may be greatly reduced where weed seeds have been buried by cultivation prior to application. Weed control may also be reduced where there is insufficient soil moisture for herbicide uptake or in soils prone to leaching where rainfall is sufficiently heavy to cause movement of the herbicide out of the weed seed zone.

Wynca Pyroxasulfone 850 WG Herbicide will not reliably control emerged weeds. A knockdown herbicide should be used to control emerged weeds at sowing.

Crop Safety

Wynca Pyroxasulfone 850 WG Herbicide generally shows good crop selectivity when used as directed. The following directions will help minimise the risk of crop effects.

- DO NOT plant durum wheat after the application of Wynca Pyroxasulfone 850 WG Herbicide as it may be severely damaged. Refer to **Crop Rotation Recommendations** for further advice.
- When incorporation is by sowing with knife points and press wheels avoid throwing treated soil into adjacent crop rows.
- DO NOT use a combination of both press wheels and a covering device such as harrows or chains when sowing.

The potential for crop damage is increased when there is substantial rainfall after the application of Wynca Pyroxasulfone 850 WG Herbicide, especially where this leads to temporary waterlogging. Situations which lead to concentration of herbicide in the planting row, or movement of herbicide to the depth of the crop seed, may also increase the potential for crop damage. This includes the following scenarios;

- Where deep furrows are formed by the sowing operation, soil movement into the crop row may occur due to wind or heavy rainfall soon after sowing resulting in concentration of herbicide in the crop row.
- Where soil has a high potential for leaching, heavy rainfall between application and crop emergence may result in movement of herbicide into the crop seed zone.
  Other circumstances which may increase the potential for crop damage include where Wynca Pyroxasulfone 850 WG Herbicide is applied in tank mixes with other herbicides, where crop vigour is reduced due to factors such as frosts, insect attack or crop disease, when weather damaged seed is used and/or with the use of some fungicide seed treatments especially in conjunction with crop varieties with short coleoptile length. A combination of individual factors which increase the potential for crop damage may increase the extent of crop damage.

Chickpeas, field peas, lentils and lupins:

- Wynca Pyroxasulfone 850 WG Herbicide may occasionally delay emergence or flowering of winter legume crops.
- Luxor variety of *albus* lupin has been identified as potentially more sensitive to Wynca Pyroxasulfone 850 WG Herbicide than other lupin varieties, particularly in situations of late sowing and/or wet conditions around the time of sowing.

Incorporation by Sowing

Wynca Pyroxasulfone 850 WG Herbicide should be applied prior to sowing and incorporated by sowing using knife points and press wheels, or narrow points and harrows. When incorporation is by knife points and press wheels, weeds germinating in the seed row may not be controlled. Weeds germinating from depth, weeds just about to emerge, or weeds that have emerged which are not controlled by a knockdown herbicide at sowing may not be controlled by Wynca Pyroxasulfone 850 WG Herbicide.

Interval between Application and Sowing

Incorporate by sowing as soon as practicable after the application of Wynca Pyroxasulfone 850 WG Herbicide, but no later than 3 days after application.

Sandy Soils
Weed control may be reduced in soil prone to leaching where rainfall after application and sowing is sufficiently heavy to cause movement of the herbicide out of the weed seed zone.

Suppression of Great Brome and Wild Oats
Wynca Pyroxasulfone 850 WG Herbicide is most effective when grass weed seeds are present on or very close to the soil surface at the time of application. For this reason, it is recommended that Wynca Pyroxasulfone 850 WG Herbicide is applied to uncultivated soil. As the depth of weed seeds increases, control from Wynca Pyroxasulfone 850 WG Herbicide tends to decrease. It is rare that all great brome and wild oat weed seeds will be on the soil surface at the time of Wynca Pyroxasulfone 850 WG Herbicide application, especially considering that these seeds may remain viable in the soil for several seasons. Plants may germinate from seeds buried by the sowing operation in previous seasons, by livestock or by weed seed self-burial mechanisms particularly in some soil types (e.g. cracking clays and sand). **Therefore, only partial control or suppression of the great brome or wild oat population should generally be expected**. In these situations, a follow up application with a suitable post-emergent herbicide may be required to control remaining plants.

Mixing
Shake contents well before use. Ensure sprayer and nozzle filters are clean before preparing the spray mixture. Half fill the spray tank with water and, with the agitators in motion, add the correct amount of Wynca Pyroxasulfone 850 WG Herbicide directly to the spray tank. Complete filling the tank with agitators in motion. Agitation must continue before and during spraying. When other products are to be applied in addition to Wynca Pyroxasulfone 850 WG Herbicide, always add Wynca Pyroxasulfone 850 WG Herbicide to the spray tank first and ensure it is fully dispersed in the spray tank before adding other products.

Application
Ensure complete and even spray coverage of the soil is achieved. Poor spray coverage may result from application to ridged or excessively cloddy soil or in situations of high stubble, plant residue or other ground cover. A significant reduction in weed control may result where stubble, plant residue or other ground cover exceeds 50%, and in situations where a ‘cold’ or incomplete burn of stubble results in a mass of material which can act as a physical barrier between the herbicide and germinating weeds - this can be exacerbated in header trails where there may be greater weed seed numbers and higher levels of plant residue. Weed control can be particularly affected where Wynca Pyroxasulfone 850 WG Herbicide is applied to a barrier of stubble, plant residue or other ground cover and there is insufficient following rainfall to transfer Wynca Pyroxasulfone 850 WG Herbicide to the soil surface and the germinating weed seeds.

Equipment
Ground Sprayers – Standard boom sprayers only are recommended and must be fitted with by-pass or mechanical agitation. It is recommended that 50 to 100 L water/ha is applied with spray droplets of a COARSE droplet size category. In some situations (e.g. high stubble loads) high water volumes may give higher levels of weed control.

Aircraft – DO NOT apply Wynca Pyroxasulfone 850 WG Herbicide by aircraft.

Sprayer Clean-Up
Following the use of Wynca Pyroxasulfone 850 WG Herbicide, the spraying equipment should be thoroughly cleaned before it is used for application of other products.
Cleaning should occur immediately following application of Wynca Pyroxasulfone 850 WG Herbicide. The spray unit should first be completely emptied. The sprayer, including all filters and lines, should be thoroughly rinsed with water, to remove all traces of product.
Ensure that the sprayer clean-up is carried out in an area that is clear of waterways, desirable vegetation and tree roots. If using Wynca Pyroxasulfone 850 WG Herbicide with a tank-mix partner, refer to the sprayer clean-up instructions for the other product, which may be more rigorous than those for Wynca Pyroxasulfone 850 WG Herbicide.

Crop Rotation Recommendations
Wynca Pyroxasulfone 850 WG Herbicide breaks down by microbial degradation, which is favoured by warm, moist aerobic soil. Minimum re-cropping intervals (months after Wynca Pyroxasulfone 850 WG

Herbicide application) have been established for Wynca Pyroxasulfone 850 WG Herbicide to minimise the risk of damage to following crops (see table below). However, environmental and agronomic factors make it impossible to eliminate all risk and therefore the potential for damage to following crops exists.
Rainfall of less than the minimum interim rainfall required (see table below) may result in extended re-cropping intervals. Interim rainfall is the total rainfall between the application of Wynca Pyroxasulfone 850 WG Herbicide and planting of the particular following crop. For re-cropping with winter crops, where a minimum of 250 mm of interim rainfall is required, if rain from application to the end of spring is less than 125 mm and isolated heavy summer and autumn falls and break rains are required to achieve the 250 mm interim rainfall, then extended re-cropping intervals may apply.

Crops	**Re-cropping Recommendation**	
	Minimum re-cropping interval	**Minimum interim rainfall**
Wheat (not durum wheat) and Triticale	0 months	0 mm
Cotton, Maize, Mung Beans, Sorghum, Soybeans and Sunflowers	5 months	150 mm
Barley, Canola*, Chickpeas**, Faba Beans, Field Peas**, Lentils**, Lupins**, Vetch and Subterranean Clover	9 months	250 mm
Durum Wheat, Oats, Lucerne and Medic	21 months	550 mm

* For canola sown the year after the application of Wynca Pyroxasulfone 850 WG Herbicide there may occasionally be some crop stunting, but no yield reductions have been measured.
** Chickpeas, field peas, lentils and lupins can be sown immediately after the application of Wynca Pyroxasulfone 850 WG Herbicide where Wynca Pyroxasulfone 850 WG Herbicide has not already been incorporated. However, where Wynca Pyroxasulfone 850 WG Herbicide has been incorporated into the soil, for example, by a previous sowing operation for a subsequently failed crop, these legume crops should not be sown for at least 9 months after the application of Wynca Pyroxasulfone 850 WG Herbicide.
For advice on crops and situations not listed above, contact ZHEJIANG XINAN CHEMICAL INDUSTRIAL GROUP CO., LTD.