

Product Name: EuroChem RED COLOURING AGENT Plant Growth Regulator
APVMA Approval No: 87349/131819



Label Name:	EuroChem RED COLOURING AGENT Plant Growth Regulator
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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:	100 g/kg S-ABSCISIC ACID
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Mode of Action:	
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Statement of Claims:	To accelerate or increase the red colouration in berries and bunches of red table grapes (Vitis spp.) as specified in the Directions for Use table.
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Net Contents:	1kg 10kg (10 x 1kg) Contains 10 x 1kg (water soluble bag) measure packs which it is illegal to sell separately
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Restraints:	DO NOT apply to plants under pest, nutritional or water stress. DO NOT apply if rainfall or overhead irrigation use is likely within 6 hours of spraying. DO NOT apply with aircraft.
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Directions for Use:	
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Other Limitations:	
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Withholding Periods:	WITHHOLDING PERIODS: NOT REQUIRED WHEN USED AS DIRECTED
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Trade Advice:	
General Instructions:	
Resistance Warning:	
Precautions:	
Protections:	PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS S-Abscisic Acid is a plant growth regulator which is toxic to aquatic plants. DO NOT apply under weather conditions, or from spraying equipment, that may cause spray to drift onto nearby susceptible plants/crops. PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT DO NOT contaminate streams, rivers or waterways with the chemical or used containers.
Storage and Disposal:	STORAGE AND DISPOSAL Store in the closed, original container in a well ventilated area, as cool as possible. DO NOT store for prolonged periods in direct sunlight. Single-rinse or shake container into the spray tank. Do not dispose of undiluted chemicals on-site. Puncture bag and deliver to an approved waste management facility. If an approved waste management facility is not available, bury the container 500 mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, vegetation and tree roots, in compliance with relevant local, state or territory government regulations. DO NOT burn empty containers or product.
Safety Directions:	Will irritate the eyes and skin. Avoid contact with eyes and skin. When preparing spray wear elbow-length chemical resistant gloves. Wash hands after use. After each day's use wash gloves.
First Aid Instructions:	If poisoning occurs, contact a doctor or Poisons Information Centre. Telephone 13 11 26 Australia-wide.
First Aid Warnings:	

DIRECTIONS BEFORE USE

Crop	Use	Situation	Rate	Timing	Critical Comments
Table Grapes (Vitis spp.) Varieties which have multiple and extended harvests	Enhancement of the red colouration in berries and bunches	Where the time between veraison and 1st pick is expected to be greater than 3-4 weeks	50g /100 L	From 1 week prior to veraison to 2-3 weeks prior to harvest	Typical for varieties such as Crimson Seedless and Red Globe, but also suitable for some blocks of other long-season varieties. These types of varieties typically respond best to treatments initiated one week after veraison. Apply in 1750 to 2500 L water /ha with a 1000 g/L Polyoxyethylene Sorbitan Monolaurate Wetting Agent such as Kendeen 20 as detailed in MIXING INSTRUCTIONS. Ensure even coverage of all bunches as uneven coverage may result in unevenly coloured bunches. It is recommended that growers initially spray small areas in order to gain familiarity with EuroChem RED COLOURING AGENT effects on specific blocks as the effect will vary based on variety, canopy structure, crop load, rootstock and season. Multiple applications may be necessary in poor colouring blocks or where growers have used one application at veraison and the colour enhancement is still insufficient for marketing. Maximum effect of EuroChem RED COLOURING AGENT is achieved 2-3 weeks after application (although the grapes may continue to colour naturally) and growers should examine the sprayed blocks after 2-3 weeks in order to determine if further sprays are necessary. In varieties with multiple and extended harvests, applications can be made to enhance the colour of later harvests by applying EuroChem RED COLOURING AGENT at 50 g/100 L, 2-3 weeks prior to the next harvest. When making multiple applications do NOT apply more than 10kg/ha EuroChem RED COLOURING AGENT per season.

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

GENERAL INSTRUCTIONS

FRUIT QUALITY (GRAPES)

EuroChem RED COLOURING AGENT contains the natural plant hormone s-ABA (S-Abscissic Acid). s-ABA stimulates anthocyanin biosynthesis and accumulation. s-ABA mediates a number of responses in grapes (*Vitis* spp.) including switching on the anthocyanin genes. Anthocyanins are responsible for the red colour of the skins of the red varieties of table and wine grapes. This process occurs naturally in grapes and other plant species but the extent of the colouration can be reduced when the grapes are grown in hot conditions or when shaded (such as when grown under plastic 'rain covers'). Weather and seasonal conditions, rootstocks, soil types and other factors can all lead to grape colouration which may be insufficient for marketing.

Applications of **EuroChem RED COLOURING AGENT** can accelerate or increase red grape colouration. In most cases colour development resulting from **EuroChem RED COLOURING AGENT** application will be visible 5 to 7 days after application. Colour development initiated by **EuroChem RED COLOURING AGENT** may continue for 2 to 3 weeks. **EuroChem RED COLOURING AGENT** has not been shown to accelerate or enhance sugar development in grapes and growers should be aware that even though the grapes may have sufficient colouration they may have insufficient sugar for some markets. This means that the grapes should be left on the vines until sugar accumulation has reached that expected by the market.

It is recommended that 'rain covers' are used to protect berries and bunches that may be prone to splitting as the surfactants used with **EuroChem RED COLOURING AGENT** may impact on berry turgor in conditions conducive to berry splitting resulting in increased splitting.

EuroChem RED COLOURING AGENT can be applied as a single application but for varieties where the time from veraison (10-30% colour in the block) to harvest is extended (4-12 weeks) multiple applications may need to be considered.

When using the 50g/100L label dose, there may be insufficient colouration from a single application and multiple applications may be necessary. If multiple applications are being considered prior to any spray applications for the season, then rate applications of 50g/100 L should be used from veraison onwards, with resprays every 2-3 weeks until the desired colour is achieved.

DO NOT apply more than 10kg/ha **EuroChem RED COLOURING AGENT** per season.

The possible effects of **EuroChem RED COLOURING AGENT** on integrated pest management (IPM) strategies have not been studied. However, based on available information, it cannot be ruled out that **EuroChem RED COLOURING AGENT** may have an adverse effect on non-target beneficial insects where IPM is practiced.

MIXING

DO NOT premix **EuroChem RED COLOURING AGENT** with water in a small container prior to adding to the spray vat. Fill spray vat with 70-80% of required volume and agitate. Add required quantity of **EuroChem RED COLOURING AGENT** and surfactant while still agitating. Add the remaining water. Maintain good agitation while travelling to the block to be sprayed and during spraying. Do not leave solutions in spray vat overnight.

SURFACTANT

A 1000 g/L Polyoxyethylene Sorbitan Monolaurate wetting agent such as Kendeen 20 Surfactant must be added to the spray vat in order to aid the wetting of berry skins by **EuroChem RED COLOURING AGENT**.

A 1000 g/L Polyoxyethylene Sorbitan Monolaurate wetting agent such as Kendeen 20 Surfactant should be used at 20-50 mL/100 L, but to a maximum of 500 mL in a full spray vat. Please consult the surfactant product label and contact your supplier for more information.

APPLICATION

Timing:

Veraison is the initial stage of grape ripening and is marked by changes in colour and softening of the berry. At or near veraison, grape berries become responsive to **EuroChem RED COLOURING AGENT**. For **EuroChem RED COLOURING AGENT** applications under Australian conditions, veraison is considered to be where 10 - 30% colour occurs in the block to be treated.

Vines should not be under water, insect or other stress. Make sure vines are watered prior to application of this product. Apply under cool conditions as these are best for slow drying of applied material as this ensures adequate absorption of product into the berry skins.

Apply in a sufficient amount of water to ensure thorough coverage of the berries and bunches as application to vine foliage has no effect on grape colouration. Water volume would normally range from 1750 to 2500 L water/ha depending on the canopy structure, age of vines, density of foliage and type and condition of spray equipment. It is essential to ensure even coverage on all bunches and on both sides of the bunches. Fine or smaller droplets will assist in obtaining even coverage. It is recommended that growers setup and calibrate their sprayers in order to direct sprays at grape bunches and to achieve even coverage. Uneven coverage will result in uneven fruit colouration. For spraying under rain covers, the top nozzles should be shut-off and the lower nozzles angled to give appropriate coverage to the targeted bunches. Water volume/ha should be maintained by adding more low-flow nozzles to the sprayer and not by increasing nozzle size. More information on appropriate sprayer set-up for **EuroChem RED COLOURING AGENT** is available from your local agronomist or from your supplier.

COMPATIBILITY

Do not mix with other products as the compatibility of **EuroChem RED COLOURING AGENT** with other products has not been investigated.