

## Reading and understanding pesticide labels

### Product labels

The product label is the most important source of information about agricultural and pest control chemicals. The label is the key to using the product properly and safely.

The Pesticides Act 1999 requires that a person using a registered pesticide must read the label or have it read to them.

Before you use a chemical – you must read and understand the label.

### Label layout

The Australian Pesticides and Veterinary Medicines Authority (APVMA) registers all agricultural and veterinary chemical products for sale in Australia. Part of that process is approval of product labels.

Labels are required to follow a specific format (Code of Practice for Labelling Agricultural Chemical Products) determined by the APVMA, such as the sample label used in this section.

The sample label has been numbered – which refers to the following – to help you find and understand the different types of information.

#### 1. Signal heading:

This indicates the hazard (toxicity) level associated with using the product, e.g. Schedule 5 (Caution); Schedule 6 (Poison); Schedule 7 (Dangerous Poison). The higher the number the greater the hazard and stricter the labelling and regulatory requirements.

#### 2. Product or trade name:

The registered name used to distinguish one product from another.

#### 3. Type of product:

What the product is used for, e.g. insecticide, fungicide, herbicide, and the formulation type e.g. EC Emulsifiable Concentrate.

#### 4. Active constituent:

These are the chemicals in the product responsible for controlling the pest, disease or weed. It usually states the concentration of the chemical(s) per kilogram or per litre. It also includes solvents and other ingredients that are scheduled poisons. Anticholinesterase compounds will also be identified here.

#### 5. Mode of Action:

Herbicide, insecticide and fungicide labels now contain a 'mode of action identification symbol', e.g. GROUP A HERBICIDE. This information helps the user to identify and select chemicals from different chemical groups so as to avoid resistance problems.

#### 6. Statement of claims for use:

A brief summary of what the product will do, as claimed by the manufacturer.

#### 7. Contents/Net contents:

The weight or volume of the product in metric units.

16  
Precaution statement

**RE-ENTRY PERIOD**  
Do NOT allow entry into treated areas for 24 hours. When prior entry is necessary, wear cotton overalls buttoned to the neck and wrist, face-shield or goggles and chemical resistant gloves. Clothing must be laundered after each day's use.

**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 and pastures. Canola, cotton, tobacco, grapevines, lupins, fruit trees, ornamentals, tomatoes and other vegetables are especially susceptible to spray drift and vapour movement.

**PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT**  
Toxic to algae. Do NOT contaminate streams, rivers or waterways with the chemical or used containers. Do NOT apply by ground application to portions of fields within 20 m upwind of natural water bodies. Do NOT apply by aerial application to portions of fields within 250 m upwind of natural wetlands or water bodies. Do NOT apply under meteorological conditions or from spray equipment that will cause spray drift onto non-target native vegetation or adjacent areas, and in particular avoid any natural wetland or standing water body. Do NOT allow run-off within two days of application - avoid application to waterlogged soil, over irrigation or use when heavy rains are forecast.

1  
Signal heading

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

2  
Product Name

**DRAGON**  
**200EC HERBICIDE**

3  
Type of Product

**Active Constituents:**  
200 g/L CLOMAZONE  
300 g/L MCPA present as the ETHYL HEXYL ESTER  
450 g/L Liquid hydrocarbons

4  
Active constituent

**GROUP Q1 HERBICIDE**

5  
Mode of Action

14e

**RESISTANT WEEDS WARNING**

GROUP	Q1	HERBICIDE
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For weed resistance management DRAGON is a Group Q1 herbicide. Some naturally occurring weed biotypes resistant to this product and other inhibitors of carotenoid biosynthesis (Group F) and/or disruptors of plant cell growth (Group I) 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 this product or other inhibitors of carotenoid biosynthesis and/or disruptors of plant cell growth. Since the occurrence of resistant weeds is difficult to detect prior to use, FAD Australia Ltd accepts no liability for any losses that may result from the failure of this product to control resistant weeds.

6  
Statement of claims

**For the control of certain broad leaf weeds in winter cereals as indicated in the DIRECTIONS FOR USE table.**

7  
Net contents

**20 Litres**

8  
Manufacturer

**FAD**  
FAD Aus Ltd ABN 00512121 Norwest Business  
Maitland Place Kurri Kurri NSW 2153  
Customer Service: Toll-free 1-800-xxx-yyy

14  
General instructions

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**APPLICATION**  
Ground Application: Apply in a minimum of 60 litres of Water per hectare. In dense weed and crop situations, increase the water volume to ensure complete coverage. Aerial Application: Apply in a minimum 30 litres of water per hectare. Good coverage of weeds is essential.

**GENERAL INSTRUCTIONS**  
DRAGON Herbicide is a post-emergence, foliar absorbed product with short soil residual activity. Under favourable conditions, this pre-emergence activity will provide some control of subsequently germinated seedlings.

**MIXING**  
Half fill the spray tank with clean water. Commence agitation and add the required amount of product to the tank. Maintain agitation whilst filling the tank and throughout the spraying operation.

**COMPATIBILITY**  
DRAGON Herbicide is compatible with metsulfuron-methyl, chlorsulfuron, triasulfuron, flumprop-M-methyl & clopyralid. Do NOT add spraying oil to DRAGON tank mixes. As water quality can influence compatibility, it is recommended that mixtures should be bottled tested in the water intended for spraying, prior to mixing commercial quantities.

**CROP SAFETY**  
Following application, some transient yellowing of cereal foliage may occur. This spotting is confined to leaves present at application. The development of the crop and subsequent new growth is unaffected in crops growing free of stress. Symptoms will be more pronounced and persistent in crops that are growing under stress (see Restraints). Avoid swath overlapping.

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Directions for use

**DIRECTIONS FOR USE**

**RESTRAINTS:** Do NOT apply to crops that are stressed through disease, insect damage, frost, nutrient deficiencies, other herbicide use, excessively moist or dry conditions, or inappropriate soil types.  
Do NOT apply to weeds that are stressed.  
Do NOT apply if rain is expected within four hours.  
Do NOT add spraying oil to DRAGON or DRAGON tank m

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Restrictions

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Use Table

CROPS	WEEDS	WEED STAGE	RATE/ha	CRITICAL COMMENTS
Wheat, barley, oats	Wild Radish ( <i>Raphanus raphanistrum</i> )	Up to the 4 leaf stage	250 mL	Apply to actively growing weeds, free from stress. See "Restrictions".
		Up to the 6 leaf stage	375 mL	Apply to crops in the 3 to 5 leaf stage prior to late tillering.
	Mustard ( <i>Sisymbrium spp.</i> ) prickly lettuce ( <i>Lactuca serriola</i> ) shepherd's purse ( <i>Capsella bursa-pastoris</i> ) wild turnip ( <i>Brassica tournefortii</i> )	Up to the 2 leaf stage	250 mL	Do NOT use the 500 mL/ha rate on crops younger than 5 leaf stage, especially long-season varieties. DRAGON may cause transient yellowing of cereals, with oats being potentially most sensitive.
	Capeweed ( <i>Arctotheca calendula</i> )	Up to the 2 leaf stage	250 mL	Residual control can be impaired by dry soil conditions and by inadequate soil surface coverage. Good soil moisture before and after application will assist performance. Good spray coverage of weeds is essential. Spray before crop canopy begins to close. Increase spray volume when weed or crop density is high.
		Up to the 4 leaf stage	500 mL	Transplanted weeds will not be adequately controlled.

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

**WITHHOLDING PERIOD:** DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 5 WEEKS AFTER APPLICATION.  
HARVEST: NOT REQUIRED WHEN USED AS DIRECTED.

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Withholding period

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'Not to be used' statement

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Storage and disposal

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First aid

**STORAGE AND DISPOSAL**

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

**FIRST AID**

If poisoning occurs, contact a doctor or Poisons information Centre. Telephone 131126 Australia-wide.

**MSDS**

Additional information is listed in the Material Safety Data Sheet.

**CONDITIONS OF SALE:** All conditions and warranties rights and remedies implied by law or arising in contract or tort whether due to the negligence of FAD Australia Ltd or otherwise are hereby expressly excluded so far as the same may legally be done provided however that any rights of the Buyer pursuant to non excludable conditions or warranties of the Trade Practices Act 1974 or any relevant legislation of any State are expressly preserved but the liability of FAD Australia Ltd or any intermediate seller pursuant thereto shall be limited if so permitted by the said legislation to the replacement of the goods sold or the supply of equivalent goods and all liability for indirect or consequential loss or damage of whatsoever nature is expressly excluded. This product must be used or applied strictly in accordance with the instructions appearing hereon. This product is solely sold for use in Australia and must not be exported without the prior written consent of FAD Australia Ltd.  
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Safety directions

**SAFETY DIRECTIONS**

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

THIS PRODUCT IS NOT CONSIDERED TO BE A DANGEROUS GOOD UNDER THE AUSTRALIAN CODE FOR THE TRANSPORT OF DANGEROUS GOODS BY ROAD AND RAIL

FOR SPECIALIST ADVISE IN AN EMERGENCY ONLY  
PHONE 1800 888 999  
TOLL FREE – ALL HOURS – AUSTRALIA WIDE

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Emergency information

**Product Number 00124**

Batch No: 7458/2

Date of Manufacture: 01/01/01

**APVMA Approval No.: 41723/007**

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Batch number and expiry date

22

APVMA approval number

**8. Manufacturer or distributor:**

The company producing and/or marketing the product, including their street address and emergency phone number.

**9. Directions for use:**

This section lists instructions on how, when and where the product is to be used.

**10. Restraints:**

Warns users of problems that may occur if the chemical is used incorrectly or there are limitations with its use, e.g. do not spray during frosty weather or do not apply if rain is expected within two hours.

**11. Use table:**

Contains information on:

- the situation where the chemical can be used
- what pest, disease or weed can be controlled
- the Australian states in which it is registered for use
- how much product is needed (rate of application) – either in L/ha or kg/ha; g/100 L or mL/100 L
- Critical Comments such as how or when the product should be applied.

**12. 'Not to be used' statement:**

Specifically prohibits off-label use.

**13. Withholding period:**

The minimum period (in days or weeks) that must elapse from the last application of the chemical and:

- harvest of a crop or
- grazing of treated pastures.

This interval is set by the APVMA and is the time required to ensure any pesticide residues have declined to acceptable levels.

**14. General instructions:**

This contains other information not included in the Directions for Use section.

May include information on:

- a. application

b. mode of action

c. mixing

d. compatibility with other products

e. resistance warning – outlines general resistance problems.

**15. Protection statement:**

Gives information on the protection of native and other non-target plants, livestock, crops, bees, wildlife, fish and aquatic organisms.

**16. Precaution statement:**

Gives information on:

- how to minimise health risks to humans and animals
- re-entry times into treated areas; and what protective clothing should be worn if entering treated areas before the re-entry time is lapsed.

**17. Safety directions:**

Outlines information on how to protect yourself when preparing, using and storing the product.

**18. First aid instructions:**

Outlines information on who to contact and the procedures to follow if poisoning occurs.

**19. Batch number and expiry date:**

Batch numbers are important and required for all agricultural chemicals. Expiry dates are only required if the product cannot be stored for at least two years.

**20. Storage and disposal information:**

Outlines how to store the product, dispose of excess spray solution or product and disposal of containers.

**21. Emergency information:**

Who to contact in the case of an emergency. Also includes additional information if the product is a Dangerous Good including the Dangerous Goods class (diamond symbol), UN number (United National global identification number) which identifies the type of material and some of its properties.

## 22. APVMA approval number

From the 1st January, 1998, an APVMA approval number is shown on all labels to show it has been assessed and registered by the APVMA. (The last four digits show the date of the last assessment.) It will normally appear towards the bottom of a side panel.

## Material Safety Data Sheets (MSDS)

These are available for all farm chemicals from the manufacturer and chemical retailers. They contain additional information not on the label.

Australian MSDSs can be found on these websites:

- [www.msds.com.au](http://www.msds.com.au) (a fee will apply)
- [www.pestgenie.com.au](http://www.pestgenie.com.au)

The Hazardous Substances section of the *OHS Regulation 2001* and the *Dangerous Goods Regulation 2005* require employers to:

- obtain an MSDS for all hazardous substances and dangerous goods in the workplace, and
- make these available to employees.

A hazardous substance is one which has an adverse health effect and has satisfied Safe Work Australia's *Approved Criteria for Classifying Hazardous Substances*.

*For more information on this series, contact Sandra Hardy, NSW Department of Primary Industries, Locked Bag 26, Gosford, NSW, 2250. Phone 02 4348 1900 or fax 02 4348 1910. This information was correct at time of printing. Updated November 2011.*

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