UNDERSTANDING PESTICIDE CHEMICAL LABELS
### CONTENTS

**UNDERSTANDING PESTICIDE CHEMICAL LABELS**  
A  WARNINGS AND PRODUCT DESCRIPTION  
A.1 The Signal Heading  
A.2 Brand Name (or Trade Name)  
A.3 Type of Chemical  
A.4 Active Constituent  
A.5 Resistance Group  
A.6 What the Chemical Does  
A.7 Name, Address and Phone Number of the Business That Made the Chemical  
B  DIRECTIONS AND USE  
B.8 Restraints  
B.9 Directions for Use Table  
B.10 NOT TO BE USED FOR ANY PURPOSE... Statement  
B.11 Withholding Period (WHP)  
C  GENERAL INSTRUCTIONS  
C.12 Resistance Warning  
C.13 Compatibility  
C.14 Mixing Instructions  
C.15 APVMA compliance instructions for mandatory droplet size categories  
D  PRECAUTIONS  
D.16 Re-entry Period  
D.17 Plant-back Period  
D.18 Protection of Crops, Native and Other Non-target Plants  
D.19 Protection of Livestock  
D.20 Protection of Wildlife, Fish, Crustaceans and the Environment  
E  FIRST AID AND STORAGE DISPOSAL  
E.21 Storage and Disposal  
E.22 Safety Directions  
E.23 First Aid  
E.24 APVMA Approval Number  
E.25 Batch number, Date of Manufacture (DOM), and Expiry Date  
E.26 Dangerous Goods/Hazardous Chemical Information
UNDERSTANDING PESTICIDE CHEMICAL LABELS

You must read the label and understand the information in it, before you use a chemical. Some chemical containers also have a small booklet of information. The booklet is part of the label, and it must also be read before using a chemical.

The numbers in this document refer to the numbers on the attached 'model' label. The following information explains what the different sections of the label mean. Not all chemical labels have all the information as provided here.
UNDERSTANDING PESTICIDE CHEMICAL LABELS

Model Pesticides Chemical Label

1. CAUTION

Keep out of reach of children. Read safety directions before opening or using.

2. JO BLOGGS 500

3. SELECTIVE HERBICIDE

4. ACTIVE CONSTITUENT: 500g/l 2,4-DB present as dimethylamine salt

5. GROUP 1 HERBICIDE

6. For selective control of certain broadleaf weeds in various crops as per the directions for use table.

7. Jo Bloggs Pty Ltd, 80 Raeds St Tindale NSW 2268 EMERGENCY CONTACT NO. 1800 etc. Contents 20 l.

8. DIRECTIONS FOR USE

RESTRICTIONS: DO NOT apply when rain is expected within 4 hours. DO NOT apply to crops or weeds stressed by drought or cold, inclement conditions.

SPLASH-DRIFT RESTRICTIONS: DO NOT apply with spray droplets smaller than a coarse spray droplet size category according to APVMA compliance instructions...etc.

<table>
<thead>
<tr>
<th>CROP</th>
<th>WEEDS</th>
<th>STATE</th>
<th>APPLICATION RATE</th>
<th>WHP</th>
<th>CRITICAL COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barley, oats</td>
<td>Cocksfoot, mallow, SA, VIC, NSW</td>
<td>IL in 40L water</td>
<td>7 days</td>
<td>DO NOT use on buffalo grass</td>
<td></td>
</tr>
</tbody>
</table>

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

10. WITHHOLDING PERIOD: DO NOT GRAZ OR CUT FOR STOCK FOOD FOR 7 DAYS AFTER APPLICATION.

11. GENERAL INSTRUCTIONS

12. RESISTANCE WARNING: jo bloggs 500 is a member of the phenoxy group of herbicides. its mode of action is to etc.

13. COMPATIBILITY: This product is compatible with most water-based insecticides.

14. MIXING: half fill spray tank with water, slowly add chemical and then fill tank with water.

15. MANDATORY INSTRUCTIONS FOR GROUND APPLICATIONS: USE ONLY nozzle that the nozzle/manufacturer has rated to deliver a COARSE etc.

16. PRECAUTIONS

17. RE-ENTRY PERIOD: DO NOT enter treated area for 3 days, unless wearing appropriate PPE.

18. PLANT-BACK PERIOD: DO NOT plant sensitive crops (eg tomatoes) in treated soil for at least 12 days.

19. PROTECTION OF CROPS, NATIVE & 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 tanks or pastures.

20. PROTECTION OF LIVESTOCK: Dangerous to bees. DO NOT spray any plants in flower while bees are foraging

21. PROTECTION OF WILDLIFE, Fish, CHASINGANS & ENVIRONMENT: DO NOT allow chemical or used containers to contaminate streams or waterways.

22. STORAGE & DISPOSAL: Store in the closed original container in a cool, well-ventilated area. DO NOT store for prolonged periods in direct sunlight. This container can be recycled if it is clean, dry and free of visible residues and has the DrumMast/Logo visible.

23. SAFETY DIRECTIVES: WILL irritate eyes. When opening the container and preparing the spray, wear face shield or goggles. Wash hands after use.

24. FIRST AID: IF poisoning occurs, contact a doctor or Poisons Information Centre on 131 116.

25. Batch: A42797 Dose: 10632011

26. APVMA APPROVAL NO. XXXX
A.1 The Signal Heading

<table>
<thead>
<tr>
<th>SIGNAL HEADING</th>
<th>WHAT IT MEANS</th>
</tr>
</thead>
<tbody>
<tr>
<td>No signal heading</td>
<td>The chemical is ‘unscheduled’, and it is relatively safe to the person using the chemical. However, never treat any chemical lightly, as it may still affect our health, either in the short term or the long term.</td>
</tr>
<tr>
<td>CAUTION</td>
<td>The chemical is low to moderately hazardous to the person using the chemical. Often it can irritate the skin or eyes.</td>
</tr>
<tr>
<td>POISON</td>
<td>The chemical is very hazardous to the person using the chemical. It can cause poisoning if it enters a person’s body.</td>
</tr>
<tr>
<td>DANGEROUS POISON</td>
<td>The chemical is extremely hazardous to the person using the chemical. Just a small amount of the chemical can cause poisoning and even death if it enters a person’s body. For these poisons there are usually restrictions on the purchase and use that are imposed by state or territory governments such as training and accreditation requirements. Check with your state/territory coordinator. Contact details available at: <a href="http://www.apvma.gov.au/use">http://www.apvma.gov.au/use</a>.</td>
</tr>
</tbody>
</table>
The signal heading also includes instructions to keep the product out of the reach of children, and to read the safety directions before opening or using the product.

A.2 Brand Name (or Trade Name)
The common name for the chemical product.

A.3 Type of Chemical
The broad description of what the chemical does. Common terms are:
- Herbicide = kills plants
- Insecticide = kills insects
- Fungicide = kills fungus diseases
- Nematicide = kills nematodes (tiny worm-like creatures, that usually live in the soil)
- Molluscicide = kills molluscs (slugs and snails).

A.4 Active Constituent
This is the name of the actual part of the chemical that does the work. That is, the part that kills the weeds or insects or other pests. The concentration of the active constituent is also given.

Some products contain a solvent to dissolve the active constituent. These solvents can sometimes be poisonous, and in such cases the amount and name of the solvent is shown on the label under the heading ‘Solvent’.

A.5 Resistance Group
To prevent the pest from building-up resistance to the chemical, you should not use chemicals from the same resistance group over and over. Swap between chemicals from different resistance groups. Also see the information in section 12 below.

A.6 What the Chemical Does
This lists the things that the chemical is registered to do. It includes which crops the chemical can be used on, and which insects, weeds, diseases, etc that it is registered to control.

A.7 Name, Address and Phone Number of the Business That Made the Chemical
Contact the business if you need advice on how to use the chemical and if you need other information about the chemical (for example, how to clean up spilled chemical).
B DIRECTIONS AND USE

MODEL—SECTION B

<table>
<thead>
<tr>
<th>CROP</th>
<th>WEEDS</th>
<th>STATE</th>
<th>APPLICATION RATE</th>
<th>WHIP</th>
<th>CRITICAL COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barley, Oats</td>
<td>CLOVERS, MALLOW</td>
<td>SA, Vic, NSW</td>
<td>1L in 40L water</td>
<td>7 days</td>
<td>DO NOT use on buffalo grass</td>
</tr>
</tbody>
</table>

8 DIRECTIONS FOR USE

RESTRAINTS: DO NOT apply when rain is expected within 4 hours. DO NOT apply to crops or weeds stressed by drought or cold, frosty conditions.

SPRAY-DRIFT RESTRAINTS: DO NOT apply with spray droplets smaller than a coarse spray droplet size category according to APIWA Compliance Instructions... etc.

B.8 Restraints

This is a list of situations where the chemical MUST NOT be used; either because the chemical will not work in these situations or because it is too dangerous to use the chemical in these situations. Some chemicals do not have restraints.

If spray drift restraints apply, including mandatory no-spray zones, they will be listed here.

Drift margin instructions may include mandatory, legally enforceable instructions, such as:

- droplet size
- wind speeds when spraying
- surface inversion conditions
- record keeping
- downwind no-spray zones
B.9 Directions for Use Table

Information on how to use the chemical against specific pests on specific crops. Read the information in the table from left to right, making sure you read the information in all of the columns.

<table>
<thead>
<tr>
<th>CROP/SITUATION</th>
<th>PEST/WEED</th>
<th>STATE</th>
<th>APPLICATION RATE</th>
<th>WHP</th>
<th>CRITICAL COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lists the crops or situations where the product can be used.</td>
<td>Lists the pests or weeds that the product can control.</td>
<td>Lists the states where the product can be used.</td>
<td>Shows the rate or range of rates that should be used to apply the chemical.</td>
<td>Lists the withholding period (WHP) for each crop.</td>
<td>Lists important application details for each crop.</td>
</tr>
</tbody>
</table>

B.10 NOT TO BE USED FOR ANY PURPOSE... Statement

This statement is intended to limit the use of a product to purposes that have been assessed and approved by the APVMA. If you want to use a chemical in any way other than according to the label instructions, you may need to get a permit from the APVMA.

B.11 Withholding Period (WHP)

The time from when you apply the chemical, until you can pick the crop. You MUST NOT harvest a crop before the withholding period has expired. Some withholding periods may also apply to grazing of livestock on treated areas or cutting for stock feed.
C  GENERAL INSTRUCTIONS

**MODEL LABEL—SECTION C**

<table>
<thead>
<tr>
<th>GENERAL INSTRUCTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. RESISTANCE WARNING: Jp Bloggs 500 is a member of the phenoxy group of herbicides. Its mode of action is to etc.</td>
</tr>
<tr>
<td>2. COMPATIBILITY: this product is compatible with most water-based insecticides.</td>
</tr>
<tr>
<td>3. MIXING: half fill spray tank with water, slowly add chemical and then fill tank with water.</td>
</tr>
<tr>
<td>4. MANDATORY INSTRUCTIONS FOR GROUND APPLICATIONS: USE ONLY nozzles that the nozzles' manufacturer has rated to deliver a COARSE etc.</td>
</tr>
</tbody>
</table>

This section includes further instructions on use of the product including:

### C.12 Resistance Warning

These instructions should be followed, so that the insect, disease or weed does not become resistant to the chemical you are using (also see the information in section 5 above).

### C.13 Compatibility

This tells you if it is safe to mix the chemical with other chemicals. If chemicals are **not** compatible, they should not be mixed together. More information about compatibility can be obtained from agronomists and consultants.

### C.14 Mixing Instructions

This is important information on how to mix the chemical with water. You must follow these instructions, otherwise the chemical may not work.

### C.15 APVMA compliance instructions for mandatory droplet size categories

Any products that require application using mandatory droplet sizes will also include further mandatory instructions here.
D  PRECAUTIONS

<table>
<thead>
<tr>
<th>MODEL LABEL—SECTION D</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PRECAUTIONS</strong></td>
</tr>
<tr>
<td><strong>16</strong> RE-ENTRY PERIOD: DO NOT enter treated area for 3 days, unless wearing appropriate PPE.</td>
</tr>
<tr>
<td><strong>17</strong> PLANT-BACK PERIOD: DO NOT plant sensitive crops (eg tomatoes) in treated soil for at least 12 days.</td>
</tr>
<tr>
<td><strong>18</strong> PROTECTION OF CROPS, NATIVE &amp; 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.</td>
</tr>
<tr>
<td><strong>19</strong> PROTECTION OF LIVESTOCK: Dangerous to bees. DO NOT spray any plants in flower while bees are foraging.</td>
</tr>
<tr>
<td><strong>20</strong> PROTECTION OF WILDLIFE, FISH, CRUSTACEANS &amp; ENVIRONMENT: DO NOT allow chemical or used containers to contaminate streams or waterways.</td>
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</table>

This section includes the precautions that must be taken when using the product and includes:

D.16  Re-entry Period
The time from when you apply the chemical, until it is safe for you to go back into the treated area. If you want to go back into the treated area before this time, you must wear the safety equipment that is listed here.

D.17  Plant-back Period
The time from when you apply the chemical, until it is safe to plant seedlings or sow seeds into the treated soil. This applies to soil fumigants, and to some herbicides.

D.18  Protection of Crops, Native and Other Non-target Plants
Describes the things you need to do (or not do) so that the chemical doesn’t damage crops or other desirable plants.

D.19  Protection of Livestock
Describes the things you need to do (or not do) so that the chemical doesn’t injure livestock (including bees).
D.20 Protection of Wildlife, Fish, Crustaceans and the Environment

Describes the things you need to do (or not do) so that your chemical doesn’t damage the environment (damage to these is known as ‘off-target’ damage).
E.21 Storage and Disposal

Information on how to safely store the chemical and how to safely get rid of empty containers. Note that chemicals must NEVER be kept in food or drink containers.

E.22 Safety Directions

Information about how the chemical can affect your health, and what you should do to protect yourself from exposure to the chemical. It lists the safety equipment that you should wear when handling the chemical. You should read the safety directions before opening the container or using the product.

More detailed safety information can often be found in the Material Safety Data Sheet (MSDS), which can be obtained from the company that made the chemical. Most MSDS can be downloaded from company websites. There are also other websites that provide this information.

E.23 First Aid

You should read and understand the first aid instructions on the label before you use the chemical, so that you know exactly what to do if there is an emergency.
The Material Safety Data Sheet has much more detailed first aid instructions than the label, and often has advice for doctors. You should always have the MSDS on hand, and take it with you to the doctor or hospital if you believe you may be poisoned.

**E.24 APVMA Approval Number**

In Australia, all farm chemicals MUST be approved by the Australian Pesticides and Veterinary Medicines Authority (APVMA) before they can be legally sold.

All registered products will have either an APVMA or NRA Approval Number on them. The APVMA approval number on a chemical label is our assurance that the product has been checked as safe and effective if we follow label instructions.

**E.25 Batch number, Date of Manufacture (DOM), and Expiry Date**

It is good to write down the batch number of all chemicals used, in case something goes wrong and the chemical doesn’t work properly.

Chemicals should not be used after their expiry date.

**E.26 Dangerous Goods/Hazardous Chemical information**

If a chemical container has a diamond shaped symbol on it (◊), the chemical is classified as a Dangerous Good and/or a Hazardous Chemical. If a product is classed as a Dangerous Good there are specific laws about how to transport and store it. Check with your chemical supplier to find out if you need to take special precautions when carrying Dangerous Goods on your vehicle when driving on public roads.

If the product is classified as a Hazardous Chemical you must comply with specific laws in relation to workplace health and safety aspects.