



**Australian Government**  
**Australian Pesticides and  
 Veterinary Medicines Authority**

10 July 2009

Senator Glenn Sterle  
 Chair  
 Senate Rural and Regional Affairs and Transport Committee  
 Parliament House  
 CANBERRA ACT 2600

Dear Senator

At the 2009–2010 Budget Estimates of the Senate Rural and Regional Affairs and Transport Legislation Committee on 26 and 27 May, the Committee through Senator Christine Milne requested the APVMA to provide details of a research permit. Senator Milne's questions are:

- 1) For how many years was the research permit granted and why is it Commercial-in-Confidence?
  - 2) I would like to know what the permit conditions are with regard to that particular chemical?
  - 3) Could you table for the Committee a risk assessment report and as much information as you can about the use of the chemical?
  - 4) I would like to know for how many years this research is going on and over what physical area. We know it is the Georges River catchment, but I would like to know whether it is for the whole of Tasmania or just certain catchments?
2. With the consent of the permit holder and the manufacturer of the product, the APVMA is releasing an edited version of the documents, which provide answers to Senator Milne's questions. The edited documents are at Attachment A.

**Application for withholding information**

3. In accordance with Order 8 of the Procedural Orders of Continuing Effect, I hereby request the Committee grant my request to not require the following information on the ground that disclosure to the Committee may not be in the public interest:
  - 1) The names of the permit holder and manufacturer of the relevant product;
  - 2) The identity of the chemicals the use of which was authorised by the permit; and
  - 3) The product formulation details.

4. The above information is Commercial-In-Confidence information about a specific research permit issued by the APVMA. The permit relates directly to research that is being undertaken as part of developing a new product for commercialisation and use in Australian agriculture. The permit authorised the use of the herbicide, terbuthylazine, in forestry-related trials in a number of States including Tasmania.

#### **Consultation with permit holder and manufacture**

5. In attempting to answer the Senator's question as fully as possible, the APVMA has consulted with the permit holder and product manufacturer to ascertain which information (if any), they consider to be confidential information. The companies agreed to release the APVMA from its confidentiality obligations for most of the information requested by the Senator, as set out in Attachment A.
6. Both companies have identified three types of information the release of which would cause the companies to suffer financial disadvantage. They are:
- The company names: If the company names were linked to the chemicals or chemical products mentioned in the documents, in the context of the adverse public discussion concerning their use (or misuse) in forestry applications, it could harm the companies' reputations and names. The adverse public discussion has resulted from an accidental spill caused by the actions of an unrelated third party. The mandatory conditions on the Research Permit and the Approved Labels (see attached documents), which Forestry Tasmania was required to comply with, should have been sufficient to prevent these chemicals from entering a watercourse. It would be unfair if the manufacturers were to suffer commercial damage or personal opprobrium as a result of the actions of others.
  - The chemical combination: The chemical combination is being researched as a possible future proprietary combination herbicide product, with a view to full commercialisation in an extremely competitive market. Release of the chemical combination to potential competitors would risk compromising its commercial value to the permit holders, and devaluing the intellectual property that is currently being developed through these research studies.
  - The specific chemical formulations: Similar considerations apply as above. These formulations are currently under research and development and any disclosure could be harmful to any future commercial advantage in the manufacture and marketing of these formulations.
7. I support the claims of the permit holder and the product manufacturer. I agree that the above information is of commercial value to the permit holder because it relates directly to research that is being undertaken as part of developing a new product for use in Australian agriculture. This commercial value could be diminished or destroyed if it were to be released to the Committee and thence the public domain.

**Confidentiality**

8. The information was given to, and received by, the APVMA on a mutual understanding of confidence.
9. The requested information is "confidential commercial information" (CCI) for the purposes of sections 3 and 162 of the *Agricultural and Veterinary Chemicals Code* (Agvet Code) in the Schedule of the Agricultural and Veterinary Chemicals Code Act 1994. The Agvet Code imposes criminal penalties for unauthorised disclosure of CCI.
10. The information also comes within the business affairs exemption (s.43(1)(c)) and the breach of confidence exemption (s.45) of the Commonwealth *Freedom of Information Act 1982* ("FOI Act"). Prior to these questions being raised by the Committee, the information was the subject of a request under the FOI Act, which requested access to the research, permits and associated information. With the consent of the permit holder, the APVMA delegate decided to release considerable parts of the information sought. Additional information is now being released to the Committee.

**Public interest grounds and potential harm**

11. The existence of section 162 of the Agvet Code and sections 43 and 45 FOI Act exemptions reflect a public interest in non-disclosure of the information. Parliament has already seen fit to ensure that such information is not publicly disclosed.
12. The following public interests are at risk of being harmed if the information were to be disclosed:
  - the public interest in encouraging and ensuring that companies continue to develop and register new chemical products that would benefit the Australian public;
  - the public interest in ensuring that persons or organisations continue to actively volunteer information to the APVMA despite the fact that the information may be sensitive to their business, commercial or financial affairs;
  - the public interest in ensuring the integrity and viability of the regulatory processes of the APVMA;
  - the public interest in preserving confidentiality having regard to the sensitivity of the information; and
  - the public interest in protecting the 'intellectual property' of parties dealing with the APVMA.
13. Disclosure of the information could cause harm to the each of the above public interests.
14. There is a public interest in protecting the confidentiality of the requested information in order to protect the future research and development of new and potentially valuable products for use in Australian agriculture. If confidentiality were not protected, it could result in a substantial reduction in future research and development in Australia, with a resultant loss of economic activity and research capacity.

15. In the case of terbuthylazine, it could well be that it is a herbicide that has a lesser impact on the environment than some currently registered herbicides in the same chemical group. That environmental assessment cannot be made unless the research is completed and the resultant data evaluated.
16. If permit holders believe that their sensitive commercial information could be released to a Parliamentary Committee in the absence of overwhelming public interest reasons for doing so, they could be reluctant to undertake expensive and resource intensive research in Australia in the future. Again, this could result in a substantial reduction in future research and development in Australia, with a resultant loss of economic activity and research capacity.
17. There are also public and environmental health reasons why it is desirable for the APVMA to maintain a high degree of trust with the companies with which it deals. This trust would be weakened if valuable intellectual property or commercially sensitive confidential information were to enter the public domain under parliamentary privilege through Senate Committee proceedings. One such public and environmental health consideration is the willingness of pesticide and veterinary medicine companies to share information about their products under research and to be proactive in alerting the APVMA at the earliest possible time, if they suspect that their product may pose a potential danger to human, animal or environmental health.
18. I acknowledge the clear public interest in open government, transparency and widespread dissemination of information regarding the actual chemicals authorised for release into the environment, even in the limited and tightly controlled circumstances of a research permit. However, I consider that the public interest in releasing this information is outweighed by the public interest factors in favour of non-disclosure.

**Conclusion**

19. I ask that the Committee accept my request to withhold the information on public interest grounds and not require the information described in paragraph 3 above be provided in response to the questions raised by Senator Milne.

Yours sincerely



James Suter  
Acting Chief Executive Officer

ASSESSMENT REPORT
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2/3

## PERMIT TECHNICAL EVALUATION &amp; RISK ASSESSMENT (TERA)

Complete this form according to instructions given in the Finalisation Guideline (KP20\_xxxx)

## APPLICATION CATEGORY, PURPOSE AND ASSOCIATED RISKS

NPRIS Record No: 10053                      Section: AG                      Permit Status: PENDING  
 Category: PRODUCT EVALUATION Regulation Category: 20  
 Description:  
 Terbutylazine  \_\_\_\_\_ / Forestry Plantations / Broad leaf weeds & grasses

Identified risks (variation to approved uses):

## ASSESSMENT WITH REGARDS TO SATISFYING SECTION 112(2)(F)(G) OF AGVET CHEMICALS CODE ACT

## JUSTIFICATION:

Acceptable: Yes

Reason: The application seeks extension of the permit PER 8355 which was expired on 30 June 2007. The permit holder stated that due to ongoing drought it was not possible for them to trial the product to any extent. The request was made to extend the permit till 30/6/2009.

As stated in the previous evaluation document the sought permit intended to use of two terbutylazine formulations \_\_\_\_\_ ; and \_\_\_\_\_ in forestry plantation situations for both pre and post-plant weed control. The use of terbutylazine is being investigated as an alternative to atrazine and simazine uses. The use of terbutylazine is to be trialled as a stand alone treatment, and also as a tankmix treatment  \_\_\_\_\_ for post-plant weed control. This application proposes large scale commercial trials which are based on successful small scale trials. The trials propose both ground and aerial application methodology. The aim of the trials is to collect data for the purposes of supporting a registration submission.

All the necessary risk factors were assessed while issuing the previous permit PER8355 which is still applicable. The proposed extension therefore does not pose any increased risk.

## ASSESSMENT:

Acceptable: Yes

Reason: Issue the permit as requested to be effective from the date of approval and valid till 30 June 2009.

GENE TECHNOLOGY:

GM product       YES       NO (Gene Technology section is not applicable)

## SUPPLEMENTARY MATTERS:

**ASSESSMENT REPORT**

ADDITIONAL DATA / INFORMATION REQUIRED FOR RENEWAL?

(YES / ~~NO~~)

Details:

TRANSFER PERMITTED USE ONTO PRODUCT LABEL?

(YES / NO / NOT APPLICABLE)

Details:

*Data being collected through these trials for future registration*

I agree that if a product application were to be submitted to include the permitted use(s) onto the product label, then the details of any such application would be:

Category:

Fee:

Timeframe:

Additional data requirements:

Signed: ..... Date:

*(Team Leader)*

Product Evaluator: *MUHAMMAD QUADIR*

Date: *27/07/07*

Team Leader: *[Signature]*

Date: *31/8/07*

<b>ASSESSMENT REPORT</b>
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**(BRIEF) PERMIT TECHNICAL EVALUATION & RISK ASSESSMENT (TERA)**

Complete this form according to instructions given in the Finalisation Guideline (KP20\_xxxx)

**PERMIT AMENDMENT REQUEST**

NPRIS Record No: 8355                      Section: AG                      Permit Status: CURRENT  
 Category: PRODUCT EVALUATION                      Regulation Category: 47  
 Description: Terbutylazine / Forestry plantations / Broad leaf weeds and grasses.

Identified risks (variation to approved uses):

**ASSESSMENT WITH REGARDS TO SATISFYING SECTION 112(2)(F)(G) OF AGVET CHEMICALS CODE ACT****JUSTIFICATION:**

Acceptable: Yes

Reason: The permit holder has submitted a request to amend this permit because had problems formulating the terbutylazine product. Instead, they could only formulate a product. Hence, new labels are submitted for the new formulation, along with the corresponding rate adjustment to reflect the different active content. No other changes to the permit are proposed. The formulation is not registered (and nor was the formulation). There are no increased risks associated with allowing use of the formulation under permit. The risks were previously assessed for the formulation and were found to be acceptable. Hence, the formulation is also acceptable, since the active content is lower.

The change in formulation does not alter the intent of the permit. To accommodate the amendment request means a change in the product name and associated label, and a corresponding change to the use rates – adjusted for the level of active in the new formulation.

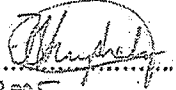
The PE considers that no increased risks are likely to occur by changing the permit document as specified above. No changes are proposed to the use pattern. The intention of PER8355 is not altered in any way.

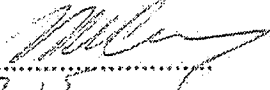
In summary, the PE concludes that the proposed amendments to this permit do not alter the intention of the permit, and do not result in any increased risk in relation to the specified criteria under Section 112(2)(F)(G) of the AgVet Chemical Code Act.

**ASSESSMENT:**

Acceptable: Yes

Reason: Amend permit as requested to be effective from date of approval, and valid to the existing expiry date of 30 June 2007.

Product Evaluator:   
 Date: 15 Jul 2005

Team Leader:   
 Date: 28 Jul 2005

ASSESSMENT REPORT

RECOMMENDATIONS:

1.  AMEND PERMIT      Permit amendments completed by PE.  
NPRIS database updated by PE.

2. Proposed start and expiry dates of permit:

NO CHANGES.

Evaluator:.....  
*(Signature)*

Date: 15/7/05

DECISION BY DELEGATE:

A. I am satisfied the proposed permit amendment meets requirements of the Code & Regulations:

YES (Complete items B, C & D below)       NO (Go to item D below)

B. I am satisfied that the proposed permit document is in accordance with the Code and the conditions of the permit are acceptable and suitable:

YES       NO (Discuss with Evaluator for amendment)

C. I agree with the period that the permit shall be in effect:

YES       NO (Alternative Expiry date:.....)

D.  AMEND PERMIT

Delegate:.....  
*(Signature)*

Date: 22/7/05



ASSESSMENT REPORT
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## PERMIT TECHNICAL EVALUATION &amp; RISK ASSESSMENT (TERA)

Complete this form according to instructions given in the Finalisation Guideline (KP20\_xxxx)

## APPLICATION CATEGORY, PURPOSE AND ASSOCIATED RISKS

NPRIS Record No: 8355                      Section: AG                      Permit Status: PENDING  
 Category: PRODUCT EVALUATION Regulation Category: 47  
 Description:  
 Terbutylazine \_\_\_\_\_ Forestry Plantations / Broad leaf weeds & grasses

Identified risks (variation to approved uses):

## ASSESSMENT WITH REGARDS TO SATISFYING SECTION 112(2)(F)(G) OF AGVET CHEMICALS CODE ACT

## JUSTIFICATION:

Acceptable: Yes

Reason: This permit application proposes use of two terbutylazine formulations \_\_\_\_\_ and \_\_\_\_\_ in forestry plantation situations for both pre and post-plant weed control. The use of terbutylazine is being investigated as an alternative to atrazine and simazine uses. The use of terbutylazine is to be trialled as a stand alone treatment, and also as a tankmix treatment \_\_\_\_\_ for post-plant weed control. The terbutylazine products are not yet registered in Australia, but are widely used in NZ forestry situations. The \_\_\_\_\_ product is registered in Australia for the use proposed in Pinus plantations, but it is not registered for the same use in Eucalypt plantations. Hence, a permit is required to trial the proposed uses. This application proposes large scale commercial trials which are based on successful small scale trials. The trials propose both ground and aerial application methodology. The aim of the trials is to collect data for the purposes of supporting a registration submission. In summary, the PE confirms that a permit is required for the proposed trials, and that the trials are justified.

## TOXICOLOGY:

Acceptable: Yes

Reason: The two terbutylazine products proposed in this application are not currently registered in Australia. However, the active is scheduled as S6 and a tox evaluation has been previously completed for this active. The applicant has supplied formulation details for both products, and there are no non-active components that present a higher toxicology risk. Appropriate labels with relevant signal heading will be supplied with the products. The \_\_\_\_\_ product proposed for use is currently registered, and is also registered in forestry situations. No risks have been identified that would prevent the conduct of trials according to the use pattern proposed under this trial permit. Hence, it is considered that no further toxicological assessments are required for the permit application. In summary, the products/constituents, if used appropriately, are not likely to have a harmful effect to human beings.

ASSESSMENT REPORT
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**OCC. HEALTH:**

Acceptable: Yes

Reason: Also see Tox section above. Terbutylazine is currently scheduled and has a listing in the FAISD Handbook, although not for the formulations specified for this permit application. However, appropriate FAISD's are included on the labels that will accompany the products to be used in this trial permit. These directions/instructions are considered appropriate for the proposed use pattern. No additional OHS risks have been identified. Hence, the product/constituents, if used appropriately, would not be unduly hazardous to the safety of people exposed to it during its handling or post-use exposure.

**RESIDUES:**

Acceptable: Yes

Reason: This application has not been assessed by the Chemistry and Residue Program (CRP). This permit is for a non-food use. There will be no products taken from areas treated under permit conditions. As a result it is highly unlikely for any residues to end up in any food commodity. Therefore, the evaluator is satisfied that the residues evaluation adequately address the risk that the product/constituents, if used appropriately, would not be unduly hazardous to people exposed to anything containing its residues.

**TRADE:**

Acceptable: Yes

Reason: This permit is for a non-food use. There will be no products taken from areas treated under permit conditions. As a result, any trade issues are considered to be highly unlikely. Therefore, the evaluator is satisfied that there is a very low risk that the product/constituents, if used appropriately, would unduly prejudice Australia's international trade or commerce.

**EFFICACY:**

Acceptable: Yes

Reason: The applicant has achieved success with this product in small scale trials. These larger trials are necessary to confirm efficacy in commercial conditions. The data will be used to support the registration submission. In summary, the evaluator is satisfied that the efficacy evaluation adequately address the likelihood that the products, if used in accordance with the appropriate label recommendations, would be sufficiently effective.

**SAFETY TO HOST:**

Acceptable: Yes

Reason: The applicant has achieved success with this product in small scale field trials. These larger trials are necessary to confirm host safety in commercial conditions. This data will be used to support the registration submission. In summary, the evaluator is satisfied that the safety evaluation adequately addresses the risk that the product/constituents, if used appropriately, would not be likely to have an unintended effect that is harmful in the situation proposed in this application.

ASSESSMENT REPORT

ENVIRONMENT:

Acceptable: Yes

Reason: DEH have not assessed this application. However, it is considered that the environmental risk in regard to this trial permit is considered acceptable because:

- application is proposed for highly managed intensive forestry plantation situations.
- product application is contained to small sections within the plantation.
- the product is registered internationally for the same use patterns.
- appropriate environmental protection statements exist on the product labels that will accompany the permit.
- the trials are over a comparatively small area (compared to total forestry area) which thereby minimises environmental risk.

In summary, the PE concludes that the environment evaluation adequately addresses the risk that the product/constituents, if used appropriately, would not be likely to have an unintended effect that is harmful to the environment.

PUT ON LABEL?:

Acceptable: Yes

Reason: Applicant is collecting data for the purposes of a registration submission.

ASSESSMENT:

Acceptable: Yes

Reason: All the required criteria have been satisfactorily addressed. Issue permit as requested, to remain current until 30 June 2007.

GENE TECHNOLOGY:

GM product  YES  NO (Gene Technology section is not applicable)

SUPPLEMENTARY MATTERS:

ADDITIONAL DATA / INFORMATION REQUIRED FOR RENEWAL?

(YES / NO)

Details:

TRANSFER PERMITTED USE ONTO PRODUCT LABEL?

(YES / NO / NOT APPLICABLE)

Data being collected for purposes of registration.

Product Evaluator: [Signature] Date: 17/5/05

Team Leader: [Signature] Date: 17/5/05

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**ATTACHMENT 1:**

*Outer Container Label:*

**READ SAFETY DIRECTIONS BEFORE OPENING OR USING**

**TERBUTHYLAZINE**  
**HERBICIDE**

**ACTIVE CONSTITUENT: . g/kg TERBUTHYLAZINE**

<b>GROUP</b>	<b>C</b>	<b>HERBICIDE</b>
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For the control of a wide variety of weeds in various situations as per the Directions for Use table.

**FOR EXPERIMENTAL USE ONLY. THIS PRODUCT IS NOT REGISTERED**

**NET CONTENTS: 10.8 kg**

**CONTAINS 6 x 1.8 kg MEASURE PACKS  
WHICH IT IS ILLEGAL TO SELL SEPARATELY**

**DIRECTIONS FOR USE**

SITUATION	WEEDS CONTROLLED		APPLICATION RATE kg/ha		CRITICAL COMMENTS
	Light Soil	Heavy Soil	Light Soil	Heavy Soil	
Non-Crop Uses, Commercial and Industrial areas; Rights of way; Public utility areas, Road shoulders, Drains, Headlands, Driveways, Railway tracks, Aerodromes, Gutters, Footpaths.	JR	JR	JR	JR	Provides seasonal control of annual weed germinations. Apply to bare moist ground.
	JOR	JOR	JOR	JOR	Provides long residual control in Winter rainfall areas. Apply to bare moist ground.
	JOR	JOR	JOR	JOR	Provides long residual control in Summer rainfall areas. Apply to bare moist ground.

<p>Forestry Including farm tree plantations <i>Pinus</i> and <i>Eucalyptus</i> tree plantings pre- and post-planting [see General instructions for further information on tree species]</p>	<p>Control of many annual and some perennial grasses and broadleaved weeds</p>	<p>_____ kg/ha</p>	<p>Terbutylazine may be applied prior to or after planting. For most situations use _____ kg/ha. On sandy soils allow two weeks and at least 50mm of rain between spraying and planting. Use a maximum rate of _____ kg/ha for overspraying eucalyptus plantations on sandy, low organic matter soils. Best results will be achieved if applied to moist, cultivated soil. If weeds are present add a knockdown or other partner herbicide as a tank mix. If spraying after planting check tree tolerance to knockdown or other partner herbicide before using.</p> <p>Rates above refer to sprayed hectares and not field hectares.</p> <p>Some tree damage may occur, especially with post-plant application. Recovery is normally rapid. Directed application is preferred for post-planting especially when the higher rates are used.</p>
<p><i>Pinus radiata</i> Pre and Post Planting</p>	<p>Hard-to-kill Herbaceous and Woody weeds.</p>	<p>_____ kg/ha Terbutylazine + _____</p>	<p>For hard-to-kill herbaceous and woody weeds it is recommended to add _____</p> <p>Pre Plant application - Allow 4 weeks before planting for treatment.</p> <p>Post Planting application - Allow 8 weeks after planting before treatment.</p>

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

WITHHOLDING PERIOD: NOT REQUIRED WHEN USED AS DIRECTED

## GENERAL INSTRUCTIONS

### *Eucalyptus and Pinus plantations:*

Field trials and use experience has indicated that the following species are tolerant. Test tolerance before treating other species.

*Eucalyptus-* globulus, grandis, nitens, regnans.

*Pinus-* pinaster, radiata.

- The product is a pre-emergent herbicide which is most effective when applied to bare, moist soil.
- For best control, apply when rain or irrigation water move the herbicide down to the root zone within 2 weeks of application.
- Results obtained may vary with the amount of chemical applied, type of soil, intensity of leaching and the species of weeds present.

## EQUIPMENT AND APPLICATION

- This product must be mixed with water and applied by suitable spray equipment. The product is contained in pre-measured dosages. The contents of the water soluble bag should be mixed with water using the following method
  1. Fill vat 60-80% full with clean water BEFORE adding product. Begin agitating vat contents vigorously and continue agitation during entire mixing and spraying operations.
  2. Add the appropriate number of water soluble bags.
  3. With the agitation system engaged, top up the correct volume with water
- Use a boom sprayer or a knapsack sprayer for small areas. \_\_\_\_\_ of mixture per hectare should be applied with the boom, and a minimum equivalent to \_\_\_\_\_ through the knapsack sprayer. Clean spray equipment immediately after use.
- If applied under dry conditions and irrigation is not available, mechanical incorporation to a depth of \_\_\_\_\_ may assist results.

## SOIL MOISTURE

If sufficient rain to thoroughly wet the soil through the weed root zone has not fallen within 14 days of application, water in with the equivalent of 13 mm of rain. If applied under dry conditions and irrigation is not available, mechanical incorporation to a depth of \_\_\_\_\_ may assist results.

## RESISTANT WEEDS WARNING

GROUP	C	HERBICIDE
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Terbuthylazine Herbicide is a member of the Triazines group of herbicides. \_\_\_\_\_  
 Terbuthylazine \_\_\_\_\_ has the inhibitors of photosynthesis at photosystem II mode of action. For weed resistance management, \_\_\_\_\_ Terbuthylazine \_\_\_\_\_ is a Group C herbicide.

Some naturally-occurring weed biotypes resistant to \_\_\_\_\_ Terbuthylazine \_\_\_\_\_ and other Group C 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 \_\_\_\_\_ Terbuthylazine \_\_\_\_\_ or other Group C herbicides.

Since the occurrence of resistant weeds is difficult to detect prior to use, \_\_\_\_\_ accepts no liability for any losses that may result from failure of \_\_\_\_\_ Terbuthylazine \_\_\_\_\_ to control resistant weeds. Advice as to

strategies and alternate treatment that can be used should be obtained from your local supplier, consultant, local Department of Agriculture, Primary Industries or <sup>2</sup>representative.

#### Resistant Weed Reporting

Land Managers should collect plant or seed samples where weeds that are normally susceptible to Terbutylazine, atrazine and simazine may be resistant, get them tested and seek professional advice.

## COMPATIBILITY

Because products may vary from time to time, a small scale compatibility test should be carried out before mixing in the spray tank.

#### Herbicide Mixing Sequence

Mixing (separated by appropriate amounts of water) should be in order of:

1. Granules
2. Wettable Powders (including those in water soluble bags).
3. Water Soluble Liquids
4. Adjuvants / Surfactants.

## PRECAUTION

### Re-entry Period

DO NOT enter treated areas without protective clothing until spray has dried.

## PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

- DO NOT spray foliage of desirable trees or other plants or near newly planted shrubs.
- DO NOT use on sandy or porous soils near desirable plants, crops or trees or where roots of such may extend or are near the surface.
- DO NOT use on white or gray sands (WA only).
- DO NOT plant crops other than those recommended for at least nine (9) months following treatment. At higher rates planting may not be possible for much longer periods afterwards.
- DO NOT use in channels or in drains where the roots of desirable plants may extend.
- DO NOT apply under weather conditions, or from spraying equipment, that may cause spray drift onto nearby susceptible plants/crops, cropping lands or pastures.

## PROTECTION OF LIVESTOCK, WILDLIFE, FISH, CRUSTACEANS, AND ENVIRONMENT

- DO NOT contaminate dams, rivers or waterways with the chemical or used containers.

## STORAGE AND DISPOSAL

- KEEP OUT OF REACH OF CHILDREN.
- Store in the closed, original container in a dry, cool, well-ventilated area out of direct sunlight.
- DO NOT re-use container for any purpose.
- During storage, keep from contact with fertilizers, other pesticides and seeds.
- Place entire water soluble bag into the spray tank. Do not dispose of undiluted chemicals on site. Product should not be burnt. Outer cardboard carton may be recycled.



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## SAFETY DIRECTIONS

Avoid contact with eyes and skin. Do not inhale dust or spray mist. Wash hands after use.

## FIRST AID

If poisoning occurs, contact a Doctor or Poisons Information Centre (Phone 13 1126).

## MATERIAL SAFETY DATA SHEET

For further information, refer to the Material Safety Data Sheet (MSDS).

## NOTICE TO BUYER

To the extent permitted by law all conditions and warranties and statutory or other rights of action which buyer or any other user may have against [redacted] or Seller is hereby excluded. [redacted] hereby gives notice to buyer and other users that it will not accept responsibility for any indirect or consequential loss arising from reliance on product information or advice provided by [redacted] on its behalf unless it is established that such information or advice was provided negligently and that the product has been used strictly as directed. [redacted] liability shall in all circumstances be limited to replacement of the product or a refund of the purchase price paid therefore.

APVMA PERMIT No. 10053.

Date of Manufacture:

Batch No:

Outer Container Label:

READ SAFETY DIRECTIONS BEFORE OPENING OR USING

FORESTRY HERBICIDE

ACTIVE CONSTITUENT: 3/kg TERBUTHYLAZINE

GROUP	G	HERBICIDE
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For the control of a wide variety of weeds in forestry plantations  
as per the Directions for Use table.

NET CONTENTS: 10 kg

FOR EXPERIMENTAL USE ONLY. THIS PRODUCT IS NOT REGISTERED

**DIRECTIONS FOR USE**

	kg/ha		
<p>Forestry Including farm tree plantations <i>Pinus</i> and <i>Eucalyptus</i> tree plantings pre- and post- planting [see General Instructions for further information on tree species]</p>	<p>Control of many annual and some perennial grasses and broadleaved weeds</p>		<p>may be applied prior to or after planting. For most situations use On sandy soils allow two weeks and at least 50mm of rain between spraying and planting. Use a maximum rate of for interrow spraying in eucalyptus plantations on sandy, low organic matter soils. Best results will be achieved if applied to moist, finely filled soil. If weeds are present add a knockdown or other partner herbicide as a tank mix. If spraying after planting check tree tolerance to knockdown or other partner herbicide before using. Application in a over the planting row is recommended although broadcast application can also be used. Rates above refer to sprayed hectares and not field hectares. Some tree damage may occur, especially with post-plant application. Recovery is normally rapid. Directed application is preferred for post-planting especially when the higher rates are used.</p>
<p><i>Pinus radiata</i> Pre and Post Planting</p>	<p>Hard-to-kill Herbaceous and Woody weeds.</p>	<p>g/ha Terbutylazine</p>	<p>For hard-to-kill herbaceous and woody weeds it is recommended to Pre Plant application - Allow 4 weeks before planting for treatment. Post Planting application - Allow 8 weeks after planting before treatment.</p>

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

**WITHHOLDING PERIOD: NOT REQUIRED WHEN USED AS DIRECTED**

## GENERAL INSTRUCTIONS

### *Eucalyptus and Pinus plantations:*

Field trials and use experience has indicated that the following species are tolerant. Test tolerance before treating other species.

*Eucalyptus-*, *globulus*, *grandis*, *nitens*, *regnans*.,

*Pinus-*, *pinaster*, *radiata*.

- The product is a pre-emergent herbicide which is most effective when applied to bare, moist soil.
- For best control, apply when rain or irrigation water move the herbicide down to the root zone within 2 weeks of application.
- Results obtained may vary with the amount of chemical applied, type of soil, intensity of leaching and the species of weeds present.

## EQUIPMENT AND APPLICATION

- This product must be mixed with water and applied by suitable spray equipment.
  4. Fill vat 60-80% full with clean water BEFORE adding product. Begin agitating vat contents vigorously and continue agitation during entire mixing and spraying operations.
  5. Add the appropriate quantity of terbutylazine.
  6. With the agitation system engaged, top up the correct volume with water
- Use a boom sprayer to apply \_\_\_\_\_ of mixture per hectare.

## SOIL MOISTURE

If sufficient rain to thoroughly wet the soil through the weed root zone has not fallen within 14 days of application, water in with the equivalent of 13 mm of rain. If applied under dry conditions and irrigation is not available, mechanical incorporation to a depth of not more than \_\_\_\_\_ sowing may assist results.

## RESISTANT WEEDS WARNING



Terbutylazine herbicide is a member of the Triazines group of herbicides. Terbutylazine has the inhibitors of photosynthesis at photosystem II mode of action. For weed resistance management, Terbutylazine is a Group C herbicide.

Some naturally-occurring weed biotypes resistant to Terbutylazine and other Group C 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 Terbutylazine or other Group C herbicides.

Since the occurrence of resistant weeds is difficult to detect prior to use, \_\_\_\_\_ accepts no liability for any losses that may result from failure of Terbutylazine to control resistant weeds. Advice as to strategies and alternate treatment that can be used should be obtained from your local supplier, consultant, local Department of Agriculture, Primary Industries or \_\_\_\_\_ representative.

**Resistant Weed Reporting**

Land Managers should collect plant or seed samples where weeds that are normally susceptible to Terbutylazine, atrazine and simazine may be resistant, get them tested and seek professional advice.

**COMPATIBILITY**

This product may be mixed with

Because products may vary from time to time, a small scale compatibility test should be carried out before mixing in the spray tank.

**Herbicide Mixing Sequence**

Mixing (separated by appropriate amounts of water) should be in order of:

1. Granules
2. Wettable Powders (including those in water soluble bags).
3. Water Soluble Liquids
4. Adjuvants / Surfactants.

**PRECAUTION****Re-entry Period**

DO NOT enter treated areas without protective clothing until spray has dried.

**PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS**

- DO NOT spray foliage of desirable trees or other plants or near newly planted shrubs.
- DO NOT use on sandy or porous soils near desirable plants, crops or trees or where roots of such may extend or are near the surface.
- DO NOT use on white or gray sands (WA only).
- DO NOT plant crops other than those recommended for at least nine (9) months following treatment. At higher rates planting may not be possible for much longer periods afterwards.
- DO NOT use in channels or in drains where the roots of desirable plants may extend.
- DO NOT apply under weather conditions, or from spraying equipment, that may cause spray drift onto nearby susceptible plants/crops, cropping lands or pastures.

**PROTECTION OF LIVESTOCK, WILDLIFE, FISH, CRUSTACEANS, AND ENVIRONMENT**

- DO NOT contaminate dams, rivers or waterways with the chemical or used containers.

**STORAGE AND DISPOSAL**

- KEEP OUT OF REACH OF CHILDREN.
- Store in the closed, original container in a dry, cool, well-ventilated area out of direct sunlight.
- DO NOT re-use container for any purpose.
- During storage, keep from contact with fertilizers, other pesticides and seeds.
- Place entire water soluble bag into the spray tank. Do not dispose of undiluted chemicals on site. Product should not be burnt. Outer cardboard carton may be recycled.

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## SAFETY DIRECTIONS

Avoid contact with eyes and skin. Do not inhale dust or spray mist. Wash hands after use.

## FIRST AID

If poisoning occurs, contact a Doctor or Poisons Information Centre (Phone 13 1126).

## MATERIAL SAFETY DATA SHEET

For further information, refer to the Material Safety Data Sheet (MSDS).

## NOTICE TO BUYER

To the extent permitted by law all conditions and warranties and statutory or other rights of action which buyer or any other user may have against \_\_\_\_\_ or Seller is hereby excluded. \_\_\_\_\_ hereby gives notice to buyer and other users that it will not accept responsibility for any indirect or consequential loss arising from reliance on product information or advice provided by \_\_\_\_\_ or on its behalf unless it is established that such information or advice was provided negligently and that the product has been used strictly as directed. \_\_\_\_\_ liability shall in all circumstances be limited to replacement of the product or a refund of the purchase price paid therefore.

APVMA PERMIT No. 10053.  
Date of Manufacture:  
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