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

GROWTH PROMOTANT

ACTIVE CONSTITUENT: 8.84 g/L INDOLE-3-BUTYRIC ACID
SOLVENT: 6.24 g/L HYDROCHLORIC ACID

Promotes root formation on cuttings, may promote plant growth and reduces transplant shock in certain situations as specified in the directions for use.

IMPORTANT:
READ THE ATTACHED BOOKLET BEFORE USE

CONTENTS: 10 LITRES
CAUTION
KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING

GROWTH PROMOTANT

ACTIVE CONSTITUENT: 8.84 g/L INDOLE-3-BUTYRIC ACID
SOLVENT: 6.24 g/L HYDROCHLORIC ACID

Promotes root formation on cuttings, may promote plant growth and reduces transplant shock in certain situations as specified in the directions for use.

IMPORTANT: READ THIS BOOKLET BEFORE USE

APVMA Approval No: 83268/107867

Distributed by: Landmark Operations Ltd
Suite 3, Level 1, Building B, 11 Talavera Road, Macquarie Park, NSW, 2113
Tel: (02) 9889 5400 • Product Support Tel: 1800 44 88 92
DIRECTIONS FOR USE:

Restraints:

**SPRAY DRIFT RESTRAINTS**

DO NOT apply with spray droplets smaller than a MEDIUM spray droplet size category according to nozzle manufacturer specifications that refer to the ASAE S572 Standard or the British Crop Production Council guideline.

DO NOT apply when wind speed is less than 3 or more than 20 kilometres per hour, as measured at the application site.

DO NOT apply during surface temperature inversion conditions at the application site.

Users of this product MUST make an accurate written record of the details of each spray application within 24 hours following application, and must KEEP this record for at least 2 years. The spray application details that must be recorded are:

1. date with start and finish times of application
2. location address and paddock(s) sprayed
3. full name of this product
4. amount of product used per hectare and number of hectares applied to
5. crop or situation and weed or pest
6. wind speed and direction during application
7. air temperature and relative humidity during application
8. nozzle brand, type, spray angle, nozzle capacity and spray system pressure measured during application
9. name and address of person applying this product. (Additional record details may be required by the state or territory where this product is used.)
<table>
<thead>
<tr>
<th>Situation</th>
<th>Rate</th>
<th>Timing</th>
<th>Critical Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plant propagation from cuttings</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cuttings</td>
<td>Undiluted</td>
<td>At planting</td>
<td>At the end of the growing season select healthy shoots. Take a 5 to 15 cm piece and cut the base on an angle. Dip the lower 1.5 cm into RADIATE then plant immediately into propagating mix. Keep moist during the entire period of root formation.</td>
</tr>
</tbody>
</table>
| Application to foliage of young plants in vegetative growth stage |           |               | • Aid in promotion of root formation,  
• May stimulate plant growth,  
• Reduction of transplant shock                                                                                                                   |
| Protected cropping                             | 150-300 mL/ha | Vegetative growth stage | APPLY IN SUFFICIENT WATER VOLUME TO ENSURE THOROUGH COVERAGE OF THE CROP. Refer to Spray Volumes under GENERAL INSTRUCTIONS. Repeat applications may be beneficial. |
| Field crops, including:                        |           |               |                                                                                                                                                   |
| Barley                                         |           |               | Ensure 1st application is made between 2 leaf and Zadoks 30.                                                                                      |
| Wheat                                          |           |               | Ensure 1st application is made between 2 leaf and Zadoks 30.                                                                                      |
| Canola                                         |           |               | Can be tank mixed with Glyphosate products registered for use on Roundup Ready^ canola. Make 1st application at the 2-4 leaf stage.                  |
| Cotton                                         |           |               | Can be tank mixed with Glyphosate products registered for use on Roundup Ready^ cotton. Apply at the following timings:  
1st: At 2-4 true leaf stage.  
2nd: 10-14 days after first application. |
### Situation Rate Timing Critical Comments

<table>
<thead>
<tr>
<th>Situation</th>
<th>Rate</th>
<th>Timing</th>
<th>Critical Comments</th>
</tr>
</thead>
</table>
| Field crops, including:  
  – continued                                | 150-300 mL/ha   | Vegetative        | Make the first application at the 1-2 node stage.                                |
| Chick pea                                    |                 | growth stage      | Make the first application at the 2-6 leaf stage.                                |
| Corn                                          |                 |                   | APPLY IN SUFFICIENT WATER VOLUME TO ENSURE THOROUGH COVERAGE OF THE CROP.          |
| Horticulture crops, including:                |                 |                   | Refer to Spray Volumes under GENERAL INSTRUCTIONS.                               |
| Lettuce                                       |                 |                   | Repeat applications may be beneficial.                                           |
| Tomato                                        |                 |                   | 1st application can be made at 4-8 leaf.                                         |
| Transplants                                   |                 | At time of transplant | APPLY IN SUFFICIENT WATER VOLUME TO ENSURE THOROUGH COVERAGE OF THE CROP.        |
|                                               |                 |                   | Refer to Spray Volumes under GENERAL INSTRUCTIONS.                               |
|                                               |                 |                   | Repeat applications may be beneficial.                                           |

**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
Indole Butyric Acid (IBA) is a plant growth regulator in the auxin group. Auxins help plants in stressful growing situations and increase adventitious root formation. RADIATE contains IBA as the active ingredient and also contains a number of nutritional ingredients to assist plant growth.

APPLICATION EARLY SEASON
Increased root mass early in the season allows greater access to soil moisture and nutrients. Consequentially there may be reduced plant stress, improved water use efficiency, shorter time to harvest and increased yield. Plants with increased shoot and root growth early in the season may be more vigorous and less stressed.

PROMOTION OF ROOT GROWTH IN CUTTINGS
RADIATE aids in promotion and acceleration of root growth of plant cuttings.

FOLIAR APPLICATION
General Application Instructions
Application may be made via ground sprayer, aerially or through irrigation systems. Responsiveness may vary from one cultivar to another or from one set of growing conditions to another. Unless previous experience dictates otherwise, prior to widespread use, test a small number of plants from each cultivar to verify desired efficacy.
RADIATE works by entering the plant via the leaf, so applying after sufficient crop canopy has developed will provide more favourable results. While early timing is generally preferred, RADIATE should be only applied when there is adequate foliage available to intercept the application.
For row crops, it is recommended a banded application is applied to the crop which will improve coverage and minimize off-target spray.
Optimising and ensuring adequate spray coverage is achieved is important when using RADIATE. Lack of effectiveness can result from non-uniform distribution. If you have any questions about calibration, you should contact your local agronomist, equipment manufacturers or other application experts.

MIXING INSTRUCTIONS
Fill the supply tank one-half full with water. Add the appropriate amount of RADIATE. Then finish filling the tank with water.
When using a non-ionic surfactant, LI 700® or Liberate® at 0.25 to 0.5% v/v are recommended. If using a mixing partner requiring a crop oil use MSO with Leci-Tech® at 0.5-1.0% v/v.
Agitate the pesticide supply tank throughout the application of RADIATE. Apply at the end of the irrigation period. Repeat application may be necessary if it rains within 2 hours after application.

**SPRAY VOLUMES**
Depending upon the equipment used and specific crop, spray volume required for thorough coverage will differ.  
Suggested spray volumes:  
For Ground Applications: 50 to 100 L/ha  
For Aerial Applications: 15 to 30 L/ha

**COMPATIBILITY**
Compatibility of this product with other agricultural products has not been fully investigated. Use of this product with other products requires testing for crop safety and performance prior to large-scale use.  
DO NOT mix this product with any non-acidic product(s) (i.e. products having a pH greater than 7).

**PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT**
DO NOT contaminate wetlands or watercourses with this product or used containers.

**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-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 packaging 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.  
For **refillable containers**: Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

**SAFETY DIRECTIONS**
Will irritate the eyes. The product is acidic. Avoid contact with eyes. When using the product wear face shield or goggles. If product in eyes wash it out immediately with water. After each day’s use wash face shield or goggles. Wash hands after use.
FIRST AID
If poisoning occurs, contact a Poisons Information Centre. Phone Australia 131126.
If swallowed, do NOT induce vomiting. Give glass of water.

SAFETY DATA SHEET
Additional information is listed in the Safety Data Sheet (SDS) which is available from the supplier.

CONDITIONS OF SALE: Any provisions or rights (under the Competition and Consumer Act 2010 and/or relevant state legislation) which cannot be excluded by those statues or by law are not intended to be excluded by these Conditions of Sale. Subject to the foregoing, all warranties, conditions, rights and remedies (expressed or implied under common law, statute, or otherwise) in relation to the sale, supply, use and/or application of this product are excluded. This product must be used strictly as directed and in accordance with all instructions appearing on the label and other reference material. To the extent allowed by statute, Loveland Products, Inc. and/or its affiliates shall not accept any liability whatsoever (including consequential loss), howsoever arising (including negligence), for any damage, injury or death connected with the sale, supply, use and/or application of this product.

Additional statements required by Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia: Causes serious eye irritation. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Eye Contact: In case of eye contact, hold eyelids open and rinse with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Seek medical attention if symptoms occur.

© Registered Trademarks of Loveland Products Inc
APVMA Approval No.: 83268/107867