



## LIQUID FERTILISER ENZYME ADDITIVE

### ACTIVE INGREDIENTS:

**Lipase >2500  $\mu$ U/mL**

**Mannanase >175 U/mL**

Also Contains

<0.01% reaction mass of 5-chloro-2-methyl-4-iso-thiazolin-3-one  
and 2-methyl-2H-isothiazol-3-one

Liquid enzyme additive that enhances nutrient availability and acquisition by plant roots and soil microbes to improve soil and plant health, growth and yield.



**WARNING:** May cause  
an allergic skin reaction.

**SHAKE WELL**

**1L**

## DIRECTIONS FOR USE:

Lumen is for soil application.

Lumen is designed for use on all soil types.

Lumen can be applied to dry soil if planting dry and will be available when the seed germinates.

Lumen should be used as soon as possible once opened.

SITUATION	USE PATTERN	RATE	CRITICAL COMMENTS
<b>Broadacre</b>			
Banded or in furrow application on broadacre crops	In-furrow at planting, banding preplant, or delivery near planting bed for all broadacre or row crops.	16 - 24 mL/ha	Apply as a total in-furrow spray volume of 30L to 140L/ha using fertilizer and/or water carrier.
	Fertiliser coating	16 - 24 mL/ha	Spray product evenly onto granulated fertiliser and mix in an auger or other mechanical mixer. See tables below for recommended rates and volumes.
Sugarcane	Plant and ratoon	25 mL/ha	Apply at planting or on ratoon cane when stool splitting occurs to apply nutrition.
	For side-dressing when applied within 15cm of the plants.	25 mL/ha	When side-dressing apply with liquid fertiliser solution in spray volume of 30L to 140L/ha.
<b>Horticulture</b>			
All horticulture crops	At planting, in-furrow with starter fertiliser or water (or both).	50-100 mL/ha	Apply as a total in-furrow spray volume of 30L to 140L/ha using fertiliser and/or water carrier.
	Vegetative stages through dripline application with fertiliser or water (or both).	50-100 mL/ha	Dilute in sufficient application volume to apply through drip or micro-sprinkler irrigation. Apply a sufficient quantity of irrigation to extend product through the root zone. Refer to mixing and compatibility statements for order of mixing.
	Nursery application to container grown seedlings, cuttings and transplants.	40 mL/100L	Sufficiently irrigate nursery stock to best allow solution to saturate the soil / substrate.
	For side-dressing when applied within 15cm of the plants.	50-100 mL/ha	When side-dressing apply with liquid fertiliser solution in spray volume of 30L to 140L/ha.

### Fertiliser coating

LUMEN fertilizer coating treatments are to be applied as recommended below in a water slurry. A maximum of total liquid volume to be used, including Lumen, is 3L per tonne of dry fertilizer. Excessive use of water for slurries in conjunction with high nitrogen content fertilizers may lead to a change in texture of the fertilizer, resulting in poor handling and flowrate.

Treat fertilizer with LUMEN well ahead of the planting operation so that the fertilizer has time to dry and does not affect fertilizer flow rates through the planting equipment. If not allowed to sufficiently dry post application, the flow of the fertilizer applicator may be slowed. To ensure uniform granule coverage with the applied Lumen slurry, good secondary mixing of the fertiliser is recommended. Avoid treating compound fertilisers with 28-30% Nitrogen content or above.

Fertilizer Rate per Hectare (kg/ha)	Volume (mL) of LUMEN and additional liquid applied per metric tonne (MT)			
	16mL/ha		24mL/ha	
Kg/ha	LUMEN (mL)	Additional Liquid (mL)	LUMEN (mL)	Additional Liquid (mL)
20	800	2200	1200	1800
30	533	2467	800	2200
40	400	2600	600	2400
50	320	2680	480	2520
60	267	2733	400	2600
70	229	2771	343	2657
80	200	2800	300	2700
90	178	2822	267	2733
100	160	2840	240	2760
120	133	2867	200	2800
140	114	2886	171	2829
160	100	2900	150	2850
180	89	2911	133	2867
200	80	2920	120	2880

**Compatibility:** Check chemical mixture compatibility using a jar test using all products in proper proportion to establish physical compatibility prior to application. This product is non-phytotoxic and compatible with many commonly used in furrow treatments including fertilisers, insecticides, pesticides, fungicides, micronutrients, and bio-stimulants.

Can be mixed with most NPK fertilisers with a pH between 4.5 and 9 as well as water carrier solution. Half fill mix tank with water and begin agitation. Add products in this order, mixing thoroughly after each addition: pesticides, fertilisers, adjuvants then Lumen. Fill tank with remainder of water and continue agitation until solution is completely mixed.

**Environmental protection:** DO NOT contaminate streams, rivers or watercourses with the chemical or used containers.

**Storage & Disposal:** Store in original container in a cool, well-ventilated area, out of direct sunlight, avoiding temperature extremes. This container can be recycled if it is clean, dry, free of visible residues and has the drumMUSTER logo

visible. Triple-rinse container for disposal. Dispose of rinsate by adding it to the spray tank. Do not dispose of undiluted chemical on site. Wash outside of the container and the cap. Store cleaned container in a sheltered place with cap removed. It will then be acceptable for recycling at any drumMUSTER collection or similar container management program site. The cap should not be replaced but may be taken separately.

**Safety Directions:** Avoid breathing mist/spray. In case of inadequate ventilation wear respiratory protection. Wear protective gloves. Contaminated work clothing should not be allowed out of the workplace and must be washed before reusing. Wash hands thoroughly after handling.

**First Aid:** IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.

**SDS:** For further information refer to the Safety Data Sheet (SDS).

®LUMEN is a registered trademark of Elemental Enzymes Australia Pty Ltd.



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**Batch Number:** see packaging

**Date of Manufacture:** see packaging

**Expiry date:** 1 year from date of manufacture



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