

# Profert®

## FORTIFIED WITH MYCORRHIZAL FUNGI & AMINO ACIDS

Microbially active. Packed with vital amino acids. Balanced with trace elements.



## INTRODUCTION

Profert® is a liquid fertiliser produced by a unique process which involves the breakdown of selected marine by-products, into a form in which plants can readily absorb the available nutrients.

One of the key ingredients in Profert® is the addition of mycorrhizal fungi (AM) spores.

Mycorrhizal fungi are part of the beneficial microbes that live in the plant rhizosphere. They form symbiotic structures with the plant roots. Through this point, the fungi will provide nutrients to the plant that otherwise would not be accessible. On the other hand, the plant will feed his fungal partner with sugars that have been produced during the photosynthesis.

The combination of an amino acid nutrition and the mycorrhizal fungi results in improved plant growth and general health in a noticeably shorter time frame than conventional chemical fertilisers.

### WHY PROFERT® WORKS SO WELL

The unique ambient (room) temperature process used in developing Profert® means that the beneficial microbes which breakdown marine protein are unharmed throughout the process and continue to increase in numbers over time, improving soil biology and plant nutrition. This process creates nutrients in the form of absorbable amino acids which are immediately available to the crop.

Mycorrhizal fungi will remain as a spore form until they find a proper root to colonise. These fungi will supply the plant with many different soil nutrients. But they are specialised in Phosphorus relocation. This eventually means that the plant will have a much better nutrition in general and in phosphorus in particular.

### AMINO ACID PROFILE IN PROFERT

Profert® has been obtained naturally from marine sources and no artificial amino acids have been included. The complete amino acid profile of the product is as follows:

AA		Metabolic functions of AA
Aspartic Acid	5%:	Seed germination
Threonine	2.5%:	Improve drought tolerance
Serine	4.5%:	Chlorophyll production, Stomata regulation, Improve Pollination
Glutamic Acid	10%:	Chlorophyll production, stomata regulation, pollination, seed germination
Proline	9%:	Heat, Salt and Drought tolerance
Glycine	27.5%:	Chelation, Heat tolerance, Chlorophyll production
Alanine	12.5%:	Chlorophyll production, seed germination
Valine	4.5%:	Drought tolerance, seed germination
Methionine	0.2%:	Ripening, stomata regulation
Isoleucine	3%:	Salt and Drought tolerance, Pollination
Leucine	5.5%:	Salt and Drought tolerance, Pollination
Phenylalanine	0.8%:	Plant reproduction, development, and defence against stresses
Histidine	1%:	Aids fruit ripening
Lysine	5.7%:	Chlorophyll production, seed germination
Arginine	4.8%:	Root development, induces Flowering and Fruiting Hormones
Hydroxiprolin	5%:	Defence against Pathogens attack Water movement through the plant

- Calculation based on free amino acid molecular weight.
- Being a microbial product the concentration of the different amino acids may vary.

## MYCORRHIZAL INOCULUM

The Mycorrhizal fungi spores added into our Profert® belong to the endomycorrhizal group. This type of fungi will form symbiotic structures with more than 85% of the plant botanical species, including most agriculture crops, ornamentals and fruit trees.

The species in our product include:

- *Glomus etunicatum*
- *G. mosseae*
- *G. intraradices*
- *Scutellospora dipurescens s.*

## PRODUCT BENEFITS

- The correct balance of macro and micro nutrients will enhance plant growth.
- Microbes help supply organic nitrogen to the plant and soil.
- Profert® can enhance the uptake and assimilation of trace minerals to rapidly correct minor micronutrient deficiencies.
- Improving soil microbial activity can aid the reduction of bulk fertilisers use and assist with unlocking built up nutrients.
- Profert® has a nil withholding period.

## SHELF LIFE & STORAGE

- 12 months from the manufacturing date.
- Profert® should be stored at ambient temperature.
- Should be stored in a well lit area so the microbial process continues.

## COMPATIBILITY & USE

Profert® can be mixed and applied with most commonly used pesticides and fungicides.

We strongly recommend checking labels for compatibility as well as pre testing in a small area prior to widespread application.

## PACKAGING

Profert® is available in the following containers:

- 20L and 1000L

## GrowGreen Pty Ltd

6089 Cunningham Hwy, Kalbar, Qld 4309

GrowGreen Pty Ltd makes no express or implied warranty regarding the storage, handling, use or results obtained from using this product (excluding statutory warranties).

## ANALYSIS (W/V)

Nutrient	Form	Analysis (W/V)
Nitrogen (N)	as protein	1.10%
	as nitrate	0.20%
	as urea	1.80%
	as ammonium	0.20%
	TOTAL	3.30%
Phosphorus (P)	as water soluble	0.70%
Potassium (K)	as protein	0.30%
	as phosphate	0.20%
	TOTAL	0.50%
Sulphur (S)	as sulphate	0.55%
Calcium (Ca)	as nitrate	0.20%
Magnesium (Mg)	as sulphate	0.02%
Zinc (Zn)	as sulphate	0.10%
Manganese (Mn)	as sulphate	0.025%
Iron (Fe)	as sulphate	0.005%
Boron (B)	as sodium borate	0.04%
Molybdenum (Mo)	as sodium molybdate	0.01%
Cobalt (Co)	as sulphate	0.0025%

## APPLICATION RATES

Crop	App. Rate/ha	No. of applications
Horticultural crops	5 - 6ltrs	3-4 soil applications, bud burst, pre flowering, post flowering & fruit enlargement stage
Broad acre winter crops	2 - 3ltrs	Liquid injection with the seed at sowing
Broad acre summer crops	2 - 3ltrs	Liquid injection with the seed at sowing

### To be diluted in a minimum of 100L of water/ha

- We recommend to foliar spray to point of run off. Application rates may vary depending on soil and leaf analysis. The above should be used as a guide only.

### Avoid spraying in high temperatures and high UV.

For information about specific application rates, please contact our technical staff.

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