SYMBIO LIQUID AERATION

A revolutionary product that provides oxygen for healthy soil, microbe and plant growth. For use in water-saturated, compacted and anaerobic root zones.

BENEFITS

- Eliminates anaerobic black layer
- Combats the effects of squidge, water logging and compaction
- Encourages the breakdown of thatch which improves percolation rates
- Provides oxygen for increased microbial activity
- Increases the uptake of applied nutrients for rapid plant growth

Treated

Untreated

N	P	K	MgO	Fe
22	0	0.4	0	0

2.5 - 5L / ha
400 - 600L water

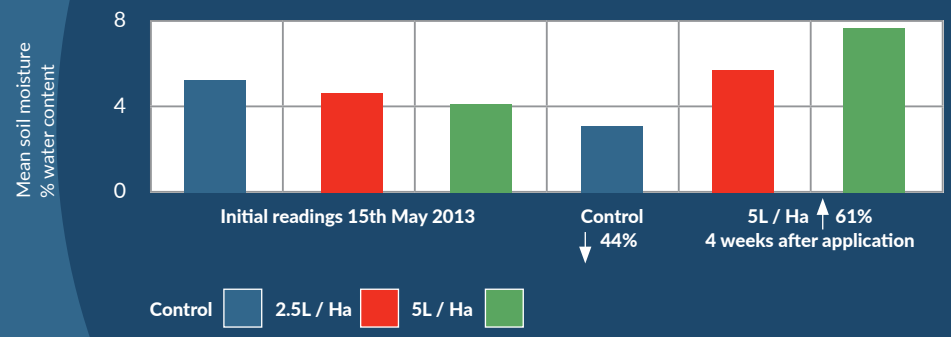
pH: 6.5-7.5

SG: 1.28-1.3

PACK SIZE: 5L

Symbio liquid aeration
is a blend of complex components that contain a high number of oxygen atoms for every molecule of product. When diluted and sprayed over turf, this oxygen becomes available for use by the plant and soil microbes, encouraging normal aerobic activity in the rootzone.

Improved rootzone friability and water retention in drought conditions



Trial conducted by G. Giadina University of Surrey

Application guide: *For best results consult your Symbio representative.

J	F	M	A	M	J	J	A	S	O	N	D

CONTACT US TODAY:

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Technical Information

- Symbio Liquid Aeration is a non-hazardous biodegradable oxidant, producing oxygen atoms to stimulate the metabolism of bacteria and fungi, thereby accelerating beneficial aerobic biological processes in soil and water
- It rapidly changes anaerobic conditions to aerobic, destroying odours and preventing dangerous methane and hydrogen sulphide build up from unused fertiliser. It is an oxygen-rich liquid that is manufactured from oxygen & nitrogen bearing salts dissolved in distilled water

So, how does it work?

- Symbio Liquid Aeration is produced by an endothermic chemical reaction (energy absorbing). For every molecule of this chemical, six atoms of oxygen are available for microbial usage.
- In order for bacterial respiration or metabolism to occur, electron acceptors are required in the oxidation (metabolism) process. The most energetically favourable electron acceptor is oxygen (O_2).
- The structure and properties of Symbio Liquid Aeration result in molecules carrying a negative net charge and acting as oxidizing agents in atmospheric conditions, this adds to its uniqueness by allowing the instantaneous oxidation of malodorous compounds
- Symbio Liquid Aeration is a hydrated compound, and as such it attracts moisture creating ideal conditions for beneficial bacteria and fungi. It also contains a surfactant helping to dry out saturated soils
- Symbio Liquid Aeration acts as a natural biostimulant. Oxygen rich conditions created by the chemical reactions help fungi and facultative aerobic bacteria metabolise more efficiently. In the aerobic form bacteria can convert 7-10 times the organic matter compared to the anaerobic form, and toxic hydrogen sulphide is not produced during aerobic degradation
- Symbio Liquid Aeration oxidises sulphides and promotes the nitrogen cycle converting ammonia and ammonium to plant available nitrate

Mode of Action:

Healthy plant growth and microbial soil activity requires oxygen, which is usually supplied by air moving into the soil. Sports turf rootzones are constructed and managed to be firm and even, and as such, have few natural air spaces, and may rapidly become anaerobic. These anaerobic conditions are exacerbated by physical compaction, overwatering or prolonged rainfall. When regular physical aeration is impossible or a dense thatch layer holds water, the soil becomes anaerobic and black layer forms; root breaks, squidge, yellowing and poor-quality turf follow.

How to apply:

- For maintenance of aerobic conditions to complement reduced physical disruption apply 1 - 2.5 L/ha. Use 2.5L/ha for faster thatch reduction
- For compacted soils, dense thatch and squidge apply 2.5-5 L/ha
- For Black Layer, highly compacted soils and waterlogged thatch apply 5 L/ha
- If the anaerobic layer is deep in the root zone, best results will be obtained by tining to the anaerobic layer before spraying to allow the liquid to penetrate quickly through the rootzone to the affected layer.
- Symbio Liquid Aeration can be tank-mixed with microbial products and most inorganic and organic fertilisers.
- Do not mix with fungicides. Always test mixes before adding to spray tank – complete a bucket test
- To maintain excellent aerobic conditions apply every 2-4 weeks depending on soil conditions and irrigation inputs and/or rainfall.

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