

Activate-R

A specially formulated **biostimulant** that increases rooting and plant health, resulting in a vigorous sward















WHY ACTIVATE R

- Contains ERD which improves root development
- Contains Humic Acids, which improve rooting depth and rejuvenates soil structure
- Contains plant growth hormones that improve root and shoot development
- Improves nutrient retention in the rootzone
- Increases plant health, rooting, seed germination and establishment
- Contains a wide range of chelated trace elements improving turf colour and health
- Increases winter shoot density



How Activate R + ERD works

Enhanced Root Developer (ERD) is a synergistic complex which greatly assists grass root development.

ERD

Increased auxin synthesis

Increased uptake and retention of all nutrients

Improved light absorption and conversion

Greater root mass and length

Higher chlorophyll, carotenoid and plastoquinone levels

Increased growth rate, improved nutrient uptake, greater stress tolerance

The overall effects of the ERD complex on the plant biochemical activities are an increase in root mass and vigour, enabling the plant to improve nutrient uptake and have

a greater tolerance to stress



Humic Acid Improves rooting depth and rejuvenate soil structure

These are a group of compounds created by the degradation of organic matter and are a portion of natures biological processes. Those in **Activate R** are sourced from Leonardite (Potassium Humate), one of the most active sources of available Humic Acid.

Humic Acid increases nutrient retention in all soils but is especially important on USGA or high sand sports turf constructions where nutrient exchange sites are low. Due to the Potassium source and its very high CEC, Activate R helps to fix Potassium in the soil, making it available for plant uptake especially during the winter.

Combined with the soil penetrant, Humic Acid restructures the soil by altering/rearranging the soil platelets making the soil more friable, increasing air spaces and increasing water penetration. Humic Acid has a high Carbon content which slowly decomposes into carbon molecules providing a slow release microbial food source.

Growth Promoting Hormones Improves root and shoot development

The cold water enzymatic, extracted plant growth hormones and betaines help the plant with increased rooting and vigour. These growth promoting hormones, combined with the simple plant sugars, improve seed germination and establishment. The unique low temperature granulation process ensures none of these vital ingredients are destroyed during the manufacturing process.

Micro-Nutrients Improve colour and health

Activate R contains a micro-nutrient (trace element) package including Magnesium, Copper, Boron, Manganese, Molybdenum and Zinc. All the micro-nutrients contained are EDTA chelated for maximum plant uptake.

Soil Penetrant For greater efficiency

This ensures that the vital ingredients are moved into the rootzone where they are used most effectively.





Activate-R Granules

All the attributes of Activate R liquid in a granular form.





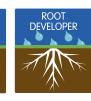


Activate-XL

A specially developed **microbial biostimulant** that boosts microbial populations, increases rooting and plant health and helps to degrade thatch even in cold temperatures













WHY ACTIVATE-XL

- Simple plant sugars provide carbohydrates which increase microbial growth and activity resulting in an immediate energy source
- Plant growth hormones and trace elements improve root and shoot development
- Increases plant health, rooting, seed germination and establishment
- Advanced cold temperature enzyme system helps degrade thatch
- Improves water-holding capacity of the soil and drought tolerance



Plant growth hormones and a wide range of micro-nutrients improve root and shoot development



 Jan
 Feb
 Mar
 Apr
 May
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 Jul
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 Sep
 Oct
 Nov
 Dec

 Use plant protection products safely. Always read the label and product information before use

RECOMMENDED PERIOD OF USE







Simple Plant Sugars increase microbial activity and summer stress tolerance

The simple plant sugars in Activate-XL provide soil microbes with a readily available food source, rapidly increasing their population and activity. After an application of Activate-XL the plant roots exude carbohydrates. This provides an energy source for the mycorrhizal fungi and rhizosphere bacteria that live in a close, mutually beneficial relationship with the plant. In exchange for an energy supply the mycorrhizal fungi provide the plant with a supply of nitrate and phosphate. This symbiotic relationship is essential for a healthy sward. The plant sugars are rapidly absorbed and assimilated by the plant cells providing an immediate energy source.

Growth Promoting Hormones Improved root and shoot development

The cold-water enzymatic extracted plant growth hormones and betaines in Activate-XL help increase rooting and vigour. These hormones, combined with the simple plant sugars, help to improve seed establishment.

Trace Elements Improve colour and health

Activate-XL contains a micro-nutrient (trace element) package including Magnesium, Copper, Boron, Manganese, Molybdenum and Zinc. All the micronutrients contained are EDTA chelated for maximum plant uptake.

Soil Penetrant For greater efficiency

The soil penetrant package in Activate-XL ensures that the vital ingredients are moved into the rootzone where they are used most effectively.

Cellulytic Enzymes For Thatch reduction

Activate-XL contains an enzyme system that is designed to help in degrading thatch in conjunction with mechanical aeration and thatch removal. These cellulytic enzymes attack cellulose and hemi-cellulose, which are the structural components of thatch. The new enzyme system is now active under lower soil temperatures.

Trials through spring to late autumn over 2 seasons have shown that in combination with aeration Activate-XL can improve thatch reduction by over 34% above aeration alone



Activate-XL Granules

All the attributes of Activate-XL liquid in a granular form.



Product Detail

Contains: Plant sugars, growth

promoting hormones, trace elements, cellulytic enzymes and soil penetrant on a lignite

base granule

Pack size: 20kg
Pack coverage: 1,000 m²
RT order code: 0422614/020

APPLICATION RATES								
Area of use	Activate XL Granules	Area						
Golf greens, golf tee	es 10kg	500m2						
Bowling greens	30kg	1,500m2						
Golf fairways, sports	fields 200kg	1 ha						

RECOMMENDED PERIOD OF USE											
	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov E	

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Humivate

A natural **humic soil conditioner** based on humic and fulvic acids, soluble in water from Leonardite, in liquid form













WHY HUMIVATE

- Enhances soil/sand aeration and reduces soil compaction (USGA type constructions)
- Increased water retention capacity, giving an efficient response to hydric stress
- Formation and development of improved root system
- Improves the fertility of soil/sand rootzones
- Improves soil characteristics: structure nutrient uptake - microbial life
- Reduces nutrient leaching

How Humivate works

Humivate improves and transforms the rootzone by facilitating the availability and assimilation of nutrients by the grass plant, improving the physical, chemical and biological characteristics of the soil. This natural, carbon rich material provides energy for both the plant and the biosphere in the rootzone, enhancing the efficiency of nutrients that can be liberated and used by the turf, together with better CEC (nutrient retention in the soil).



Humic Soil Conditioners

Humic substances are effective chelators of nutrients and improving soil structures. They are formed through chemical and biological decomposition of plant and animal matter. Their main fraction are Humic and Fulvic acids, usually derived from materials such as leonardite (soft brown version of coal).

Benefits of Humic Materials

Physical Benefits

- Improve soil structure and reduce high water and nutrient loss in light sandy soils (USGA type constructions.
- In heavier soils improves structure leading to better air/moisture balance

Chemical Benefits

- Regulate and neutralise extreme pH values
- Improve and optimise water and nutrient uptake
- ▶ Reduce the availability of toxic substance in soil

Biological Benefits

- Stimulates plant enzymes and proliferation of desirable microorganisms
- Enhances plants natural resistance against disease
- Promotes the development of chlorophyll, and plant sugars
- Stimulates plant growth (higher biomass production) by accelerating cell division, increasing the development on root systems.

Buffering Benefits

- Acidic Soils: Neutralize acidic soils; where acid-caused stress for the plant root is reduced.
- Alkaline Soils: Humic Acids buffer the high pH and convert nutrients and trace elements into plant receptive forms. Phosphate bound by Calcium is re-solubilised and made available.



Product Detail

Contains: Total Humic Extract 15% w/w Humic Acids 12%w/w Fulvic Acids 3%w/w

Pack size: 10 litres
Pack coverage: 1-2 ha
RT order code: 0112871/010

APPLICATION RATES									
Area of use	Humivate	Water Volume	Area						
Golf greens, golf tees	0.5-1 litre	Min. 25 litres	500m ²						
Bowling greens	1.5-3 litres	Min. 75 litres	1,500m ²						
Fairways, sportsfields	10-20 litres	Min. 500 litres	1 ha						

RECOMMENDED PERIOD OF USE											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Use plant protection products safely. Always road the label and product information before use											



Humivate XL

A natural **humic soil conditioner** based on humic and fulvic acids. Soluble in

> water from Leonardite, it is fortified with a package of micro-nutrients



STRESS RELIEF













WHY HUMIVATE XL

- If Growth stimulating effect during initial stages and critical periods of turf grass growth
- Efficient anti-stress effect in adverse climate situations, e.g. drought
- Improves fertilizer use enhancing chemical characteristics of the soil: better CEC, better nutrient availability and root uptake
- Corrects micronutrient deficiency



How Humivate XL works

Humivate XL improves and transforms the rootzone by facilitating the availability and assimilation of nutrients by the grass plant, improving the physical, chemical and biological characteristics of the soil. The XL formulation is fortified with N, P & K together with a trace element package providing an ideal growing season combination to sustain a healthy rhizosphere and produce optimal plant vitality.

