

LEONARDITE

DRY HUMATE

(80% ORGANIC MATTER, 70% HUMIC ACID)

CATION EXCHANGE CAPACITY 400-600 meq/100g

THE IMPORTANCE OF HUMIC ACIDS

Humic Acids are complex organic molecules formed by the breakdown of organic matter in the soil. Humic acid contains many functional chemical groups that are highly active in chelation and mobilisation of plant nutrients. A complex organic compound, humic acid has recently had its structure determined by nuclear magnetic resonance.

THE IMPORTANCE OF HUMUS

Humus is a complex aggregate of brown to dark coloured substances, which originated during decomposition of plant and animal residues. Chemically, humus is a very complex mixture of organic constituents which have their original counterparts in living plant tissue. The end results of microbial activity and breakdown of humus are collectively known as *HUMIC ACIDS*.

THE ROLE OF HUMIC ACID

Humic Acids are beneficial in the following areas:-

Biological Benefits :

- Stimulates plant enzymes
- Encourages soil micro-organisms
- Increases plant membrane permeability
- Acts as an organic catalyst
- Increases root respiration and formation
- Increases nutrient translocation

Chemical Benefits :

- Increases soil cation exchange capacity
- Rich in organic and mineral substances
- Improves soil buffering capacity
- Retains water soluble fertilisers in soil

Physical Benefits :

- Improves friability of soil (crumbliness)
- Increases water holding capacity
- Improves soil aeration
- Reduces soil erosion

(opening size 0.0964 inch/2463 microns)

(opening size 0.0203 inch/516 microns)

(opening size 0.0083 inch/212 microns)

APPLICATION RATES	
Sandy soil profile:	1% - 5% by volume
Clay and Loam profile:	1% - 2% by volume
Turf Maintenance :	10kg/100 m ² first application or renovation then 5kg/100m ² follow up applications Spring / Autumn
PARTICLE SIZE	
5% maximum retained on 8 mesh (2.36mm)	
50% maximum retained on 30 mesh (0.6mm)	
95% maximum retained on 70 mesh (0.212mm)	



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