

E R G O F I T O I N A C T I O N

GIVE NATURE WHAT NATURE WANTS

Hog's Effluent Solids Treatment



TRANSFORMATION FROM SOLIDS TO FERTILISER:

The processes consist in the stabilisation and biological transformation of the organic, cellulose and lignite fraction of the separated effluent's solids.

Such solids are transformed in a fertiliser free of pathogens with a high index of humified organic substances, rich in agronomically beneficial microorganisms with naturally optimised characteristics.

As the transformation of the solids into fertiliser is effected by Ergofito's microbiology, there is little need for expensive mechanical equipment. The chemical physical and biological reactions need attention and correction to maintain the pH., the ratio Carbon, Nitrogen, humidity and temperature.

FIRST PHASE: BACTERIAL INOCULATION:

The separated solids are inoculated with the following:

Product	Quantity	When
Ergofito Micromix	250 grams per Cubic Meter	Immediately

The Micromix needs to be mixed with water at a ratio of 1:50, therefore 12.5 liters of water needs to be mixed with 250 grams of Micromix per cubic meter of biomass. This will ensure uniform repartition.

In order to balance the mix ensure that the following parameters are respected:

- **Carbon to Nitrogen:** The ratio should be 100 C and 5 N, correct as necessary
- **pH.:** The pH. should be between 6,4 and 7,4
- **Humidity:** Best results at 55 to 65% humidity
- **Temperature:** Temperature range must be kept between 50C and 60C

Please refer to Ergofito composting pamphlet for best results.

The above will control all bad odour emission; will control the fermentation processes and the transformation of organic matter into humus.

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SECOND PHASE: FERMENTATION:

The inoculated biomass needs to be homogenized by thoroughly mixing all of the above. A mechanical turner may be needed for large piles. This mixing action must be repeated 3 to 4 times during the time of composting. This action will ensure that the compost pile is mixed homogeneously and ensure aeration.

The above compost pile will develop a notable amount of heat. Internally the pile will reach up to 65C for an initial period of 15 to 20 days, which ensure pasteurisation and hygenesation. The pile will produce steam and will reduce its overall mass, weight and volume.

THIRD PHASE: COMPLETION:

Following the fermentation phase the now fermented pile is left to compost for 45 days. After which it gets turned a last time and left for a further 45 days. After the described 90 days, the compost is ready for bagging or for immediate application to the field.

PRACTICAL EXAMPLE:

In practical terms we mix the following for every estimated ton of solids:

Product	Quantity
Hog's Solids	1 Ton
Ergoofito Micromix	250 grams
Molasses	10 Kg
Carbon (Saw Dust)	As Required

The pH. must be checked and will often require some Phosphoric acid. The bulk up agent in the form of sawdust may already be integrated in the solids as often saw dust or similar is part of the solids. Once the initial analysis is conducted and the correct initial adjustments are made, it tends to remain the same unless the hog's diet or bedding is changed.



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