



**Agrogeo Ltd.**

**Environmental research&development**

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## **Production of slow- and controlled-release fertilisers using the complex technological package of Agrogeo Ltd.**

Since 2008 Agrogeo Ltd. as an innovative SME has had a complex technological package consisting of different environmental procedures to produce stable organic fertilisers for the controlled plant nutrition and soil decontamination:

- ✓ procedure for treatment of solid-phase manure,
- ✓ complex utilization of liquid manure and biogas effluent,
- ✓ controlled composting of municipal sewage sludge



### **Advantages of the environmental technologies:**

- flexibility,
- low operation cost,
- suppression of odor and harmful gaseous emission during the controlled composting and stabilization,
- using bioenergy plant and industrial by-products to preserve agronomic value of organic wastes,
- for controlled composting: application of bio-organic cover to minimize odor, ammonia emission during the intensive phase.

**Operation cost: 10-15 USD  
for 1 wet ton of waste**



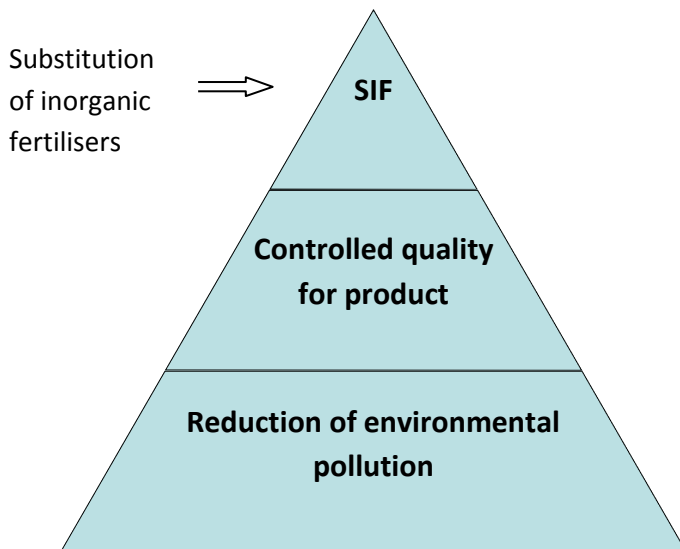
**Reduction of odor emission  
and N loss: 85-94 %**



**Wide range of the treated  
waste amount: 50-1 000 000  
tons**

### About the slow- and controlled release fertilisers:

The fertilizer industry faces a continuing challenge to improve its products to increase the efficiency of their use, particularly of nitrogenous fertilizers, and to minimize any possible adverse environmental impact.



**Figure 1: Importance of the controlled release fertiliser**

### How you can produce controlled-release fertiliser:

- optimization of the raw material composition,
- using of the patented aerobic stabilization or composting technology to get stable product,
- optimization of chemical characteristics of the end-product,
- pelletization or granulation of the stabilized or composted organic material.

The technological package can easily adapt to the present technologies. Through the controlled composting technology of Agrogeo Ltd. the end-product is suitable to convert to more competitive organic NPK fertiliser which has optimal longevity: **14-20 months**.

General physical-chemical parameters for the compost based controlled-release fertiliser:

Total N: > 1 w/w % in dry matter,

Total P: > 0,5 w/w % in dry matter,

Total K: > 0,5 w/w % in dry matter,



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