Soy Hull-based Phosphorous Absorbent

Description

The product utilizes a modified soy hull-based material that can trap reactive phosphorus while reducing sediment loss. This product can be deployed in a filter sock format to reduce phosphorus runoff.

Features and Benefits

- Reactive phosphorus reduction - leachate reactive phosphorus was reduced by 87% and surface runoff was decreased by 70% as compared to no treatment
- Sediment loss reduction - total average sediment loss was reduced by 60% as compared to no treatment
- Compostable/Recyclable
- Flexibility for application - specific form factor

Nutrient	C	N	P	K	Ca	Mg	S	Fe
Modified (g/kg)	38.7	3.5	2.24	11.6	7.2	2	8.2	23.5

Macronutrient	Mn	Cu	B	Mo	Na	Zn	Al
Modified (g/kg)	73.3	12.3	3.5	6.3	1.35	63.5	576

**Macro and Micronutrients before phosphorus absorption.*

Performance

A short-term (4-month) agricultural field study was conducted on drainage plots equipped with leaching and surface runoff measurement capabilities. Results of the study suggested that the soybean-based absorbent materials are effective to absorb reactive phosphorus with minimum environmental concerns.

**Based on preliminary field studies*

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