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CBP-HARVEST™

Product Description

CBP-HARVEST is an aqueous solution of lignin, complex carbohydrates, and micronutrients derived from the wheat straw that is typically left in the field after harvest and burned. Wheat straw can take multiple years to degrade and accumulate to levels that can cause problems with planting and other mechanical operations. CBP-HARVEST is a natural biopolymer derived from the straw collected from those fields to make a renewable non-tree paper pulp in a new manufacturing process invented at the University of Washington. CBP-HARVEST can return essential nutrients and organic matter to the soil and improve its quality and make a more environmentally friendly and sustainable cropping system. CBP-HARVEST has a large number of useful properties that enhance fertilizer and pesticide efficiency, improving efficacy or reducing the amount of chemical that growers apply.



CBP-HARVEST™ boosts fertilizer and pesticide performance.

Cost Control

The Columbia Pulp digestion process used to make CBP-HARVEST is very efficient at condensing the natural wheat straw composition into a more bioavailable form, capable of rapidly degrading in the soil to valuable organic materials and quickly releasing essential nutrients. CBP-HARVEST can improve the availability and reduce loss to runoff, wash off, and volatility of critically important fertilizer and pesticide ingredients, which cost up to 20 to 47% of the annual crop input expenses and are on the rise amid declining crop prices. For example, CBP-HARVEST can reduce the volatilization of soil-applied nitrogen and nitrate leaching and runoff. CBP-HARVEST gives chemical and fertilizer suppliers a way to boost grower productivity and reduce costs simultaneously.

Soil Health

CBP-HARVEST is compatible and readily formulated with a wide range of liquid and dry fertilizers and pesticides. The value of this natural biopolymer can be as a formulation aid, rheology modifier, penetrant, humectant, spreader and sticker, film former, pH adjuster, water conditioner, and nitrification inhibitor to reduce off-target movement and increases chemical utilization. The lignin fraction reduces wind and water erosion by acting as a natural soil-binding agent, keeping valuable soil and moisture in place. Additionally, CBP-HARVEST provides essential nutrients (see table) and organic matter that quickly breaks down to organic materials including humic acid.

Composition analysis of CBP-HARVEST

Element (ppm)								
N 2190	P 220	K 6230	Ca 170	S 136	Mg 30	Mn 4	Fe 19	Zn 0.5

Humic acid is a widely used plant growth stimulator that increases plant metabolism and nutrient uptake to improve plant development. It and lignin are excellent natural chelating products. Humic acid raises cation exchange capacity (CEC) and nutrient-holding capacity of the soil and holds calcium and other micronutrients in the root zone in forms that are easy for plants to uptake. Humic acid and other organic materials in CBP-HARVEST increase beneficial microbial activity and generally improve soil health.

Value Before and After Harvest

CBP-HARVEST returns a more valuable product than what was removed from the farm. It provides a valuable new utility for a part of the crop that is currently underutilized and uses it to produce a product to increase wheat yields when applied alone or with fertilizers and pesticides. CBP-HARVEST will add profit directly to the farm's bottom line and fit into all sustainable agriculture systems. The natural source of carbohydrates and essential nutrients in CBP-HARVEST can act as a fast-acting soil amendment to promote crop growth and yield, water retention, and soil health through natural biological processes.



CBP-HARVEST™ will make the whole wheat plant a valuable commodity.