



115 E. Main  
Dayton, WA 99328  
509.288.4892  
www.ColumbiaPulp.com

## CBP-HARVEST® - Crop & Soil Health Additive



### 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 renewable non-tree paper pulp in an innovative manufacturing process. CBP-HARVEST® is not a fertilizer but can return essential nutrients and organic matter to the soil, improving the quality of fertility products and make a more environmentally friendly and sustainable cropping system. CBP-HARVEST® has a large number of useful properties that enhance fertilizer manufacturing and handling, improving efficacy or reducing the amount of product 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. 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. While no fertilizer claims are made, 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 dry basis)								
N 7800	P 700	K 23900	Ca 2000	S 1360	Mg 700	Mn 31	Fe 205	Zn 4

Source: NW Agricultural Consultants

Humic acid is a widely used plant growth stimulator that increases plant metabolism and nutrient uptake to improve plant growth and development. Humic acid and lignin are excellent natural chelating products. They raise the 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 the natural 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 bottom line and help create more sustainable agriculture systems. When combined with other fertility products, this natural source of carbohydrates and essential nutrients in CBP-HARVEST® can act as a fast-acting soil amendment to increase crop growth and yield, water holding capacity, and soil health through natural biological processes.



***CBP-HARVEST® makes the wheat straw a valuable commodity.***