

### Description

BorreGRO HA-1 is a modified potassium humate derived from leonardite. Made by a proprietary formulation process, BorreGRO HA-1 has superior solubility in low pH systems.

### Typical Analysis (powder)

9.0	pH
17%	Soluble potash (K <sub>2</sub> O)
8%	Sulfur
35%	Carbon
33%	Oxygen
3%	Hydrogen
70%	Organic acids (BaCL <sub>2</sub> Method)
	- 50% derived from Humic acids
	- 20% derived from Fulvic acids

### Benefits

- Improves soil structure
- Increases nutrient exchange and retention
- Stimulates microbial growth
- Improves nutrient absorption
- Stabilizes pH
- Increases stress tolerance
- Increases root development
- Improves seed germination

### Versatility

The unique nature of BorreGRO HA-1 makes it one of the most versatile potassium humates available today. BorreGRO HA-1 can be mixed and applied with most types of fertilizers (including acidic fertilizers), pesticides, seed treatments and micronutrients. BorreGRO HA-1 is readily bio-available and is packaged as either a soluble powder or concentrated liquid.

### BorreGRO HA-1 vs. Conventional Humates

Property	BorreGRO HA-1	Conventional Humate
Alkali Soluble	Yes	Yes
Acid Soluble	Yes	No
Water Solubility	Complete	Varies
Fertilizer Compatible	Yes	Maybe

### Application Rates

**Corn:** 1-3 lbs powder or 2-6 quarts liquid per acre; two treatments per year in irrigation water

**Garden Vegetables and Strawberries:** 1-2 lbs powder or 2-4 quarts liquid per acre per treatment; three treatments per year in irrigation water

**Deciduous Fruit & Nut Trees:** 1-2 lbs powder or 2-4 quarts liquid per acre per treatment; minimum of three treatments per year in irrigation water

**Citrus:** 1-2 lbs powder or 2-4 quarts liquid per acre per treatment; two to three treatments per year in irrigation water

**Banana:** 10 lbs powder or 20 quarts liquid per acre per year; 5 treatments per year in irrigation water at equal intervals

**Vineyard Grape:** 1 lb powder or 2-3 quarts liquid per acre; three leaf treatments per year

**Olive:** ½ lb powder or 1 quart liquid per acre; two leaf treatments per year

**Sorghum:** 1-3 lbs powder or 2-6 quarts liquid per acre; two treatments per year in irrigation water

**Ornamentals:** 3 lbs powder or 6 quarts liquid per acre; weekly treatments in irrigation water

### USE GUIDELINES

**Drip Irrigation:** 3 lbs powder or 6 quarts liquid per acre; weekly treatments

**Soil Application:** 1 lb powder or 2 quarts liquid per acre to promote adsorption

**Foliar Application:** ½ lb powder or 1 quart liquid per acre to promote adsorption

### Physical Properties

#### Powder

% Solubility in water:	98 min
% Moisture:	10 max (powder)
Color:	Black

#### Liquid

Density:	9.6 lbs/gallons
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### Packaging

**Powder:** 50 lb net weight multi-wall kraft bags or non-returnable bulk bags

**Liquid:** 5 gallon pail, 55 gallon drum, non-returnable tote, tank truck, or rail car

Please visit [www.lignotechagro.com/contact](http://www.lignotechagro.com/contact) to request more information.

