

What Are Humates?

Humates are formed by the microbial degradation of dead plant matter. It is not a single acid; rather, it is a complex mixture of many different acids containing carboxyl and phenolate groups so that the mixture behaves functionally as a dibasic acid or, occasionally, as a tribasic acid. Humic acids can form complexes with ions that are commonly found in the environment. Humagrow is derived from a 150 million year old freshwater marsh located in west Texas.

- Humic acids enable plants to extract nutrients from the soil.
- Ulmic acids stimulate and increase root formation and growth.
- Fulvic acids gives plants strength to withstand stresses caused by pests, dry weather, and cutting.
- Builds a stronger root system by increasing root respiration and root formation.
- Increases the Cation Exchange Capacity of the soil and facilitates nutrient absorption
- Great source of energy for beneficial soil organisms, which influence both soil fertility and plant health.
- Improves aeration of soil and water retention in heavy and compact soils.
- Prevents water and nutrient losses in light sandy soils.
- Healthier roots hold soil, minimizing erosions
- When added directly to soil it improves its quality and ability to grow crops
- When added to urea, fertiliser and lime it improves their performance
- When added to seeds it improves their strike rate and encourages root growth

Organic Distributors, Inc.

Distributors of:

HumaGrow™

FulvaGrow™

A & L PLAINS AGRICULTURAL LABORATORIES, INC.

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REPORT NUMBER

CLIENT NO: 1968

CUSTOMER:

HARD ROCK MINING

SAMPLES
SUBMITTED BY:

C. WESSLING

LAB NO.: 64437

DATE: 05/04/06

HUMATE ANALYSIS REPORT

PAGE: 1

REPORT OF ANALYSIS-PERCENT										REPORT OF ANALYSIS-PARTS PER MILLION					
SAMPLE NUMBER	N NITRO- GEN	P PHOS- PHORUS	P ₂ O ₅ PHOS- PHATE	K POTAS- SIUM	K ₂ O POTASH	S SULFUR	Mg MAG- NESIUM	Ca CALCIUM	Na SODIUM	Fe IRON	Al ALUMI- NUM	Mn MANGA- NESE	Cu COPPER	Zn ZINC	
2A 04-28-06	0.19	0.01	0.02	0.88	1.06	0.14	0.02	0.40	0.08	462	716	21	2	3	

POUNDS OF NUTRIENTS/TON															
SAMPLE NUMBER	N NITRO- GEN	P PHOS- PHORUS	P ₂ O ₅ PHOS- PHATE	K POTAS- SIUM	K ₂ O POTASH	S SULFUR	Mg MAG- NESIUM	Ca CALCIUM	Na SODIUM	Fe IRON	Al ALUMI- NUM	Mn MANGA- NESE	Cu COPPER	Zn ZINC	
04-28-06	3.8	0.2	0.5	17.6	21.2	2.8	0.4	8.0	1.6	0.9	1.4	<0.1	<0.1	<0.1	

Reported on an as-received basis. Moisture: 92.00 %

This report applies only to the sample(s) tested. Samples are retained a maximum of thirty days after testing.

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