

AN ACID SOLUBLE HUMATE FOR SWEET MELON

OBJECTIVE:

To determine if sweet melon production is affected by the addition of BorreGRO® HA-1 to standard fertility programmes.

RESULTS:

- A test plot treated with fertiliser and 2 pounds of BorreGRO HA-1 soil conditioner per acre produced an average of 9.6% more sweet melons than a control plot treated with fertiliser alone. All of the increase came in more desirable No. 5 melons (Table 1).
- Nutrient uptake was improved in the BorreGRO HA-1 treated plot (Table 2).
- Soil microbial diversity improved with treatment (Table 3).
- Gross income to the grower increased by 267 dollars per acre (Table 4).

Treatment	Yield (cwt/acre)		
	No. 5	No. 6	Total
Control	183	263	446
BorreGRO HA-1	238	251	489

Table 1: Sweet Melon Yield Data (Kettleman City, CA). Trials conducted by Pacific Organic, Inc.

PROCEDURES:

The trial was performed in Kettleman City, California. The control plot was treated with fertiliser alone. The test plot was treated with fertiliser and 2 pounds BorreGRO HA-1 per acre. Product was diluted prior to application for more accurate delivery. The application method was by flood irrigation at planting. Yield data were recorded by the grower. The soil in this trial was sandy loam containing 0.71% organic matter. Soil pH was 7.4.

Treatment	Control	BorreGRO HA-1
% N	3.02	2.97
% S	0.61	0.64
% P	0.23	0.30
% K	3.61	3.32
% Mg	0.98	0.98
% Ca	4.18	4.15
% Na	2.79	2.40
Fe (ppm)	61	107
Al (ppm)	216	224
Mn (ppm)	51	67
B (ppm)	45	44
Cu (ppm)	6	13
Zn (ppm)	10	18

Table 2 – Tissue Results

DISCUSSION:

BorreGRO HA-1 is produced from leonardite using a patented process. It is soluble over the pH range 2-12. Unlike conventional humates, it can be formulated with both acidic and basic fertilisers. In this trial, no precipitation was observed when BorreGRO HA-1 was mixed with the acid starter fertiliser. The conventional humate precipitated when mixed with the acid starter fertiliser. The results of these trials clearly indicate that sweet melon production can be increased by the addition of BorreGRO HA-1 to standard fertility programmes.

CONCLUSIONS AND RECOMMENDATIONS:

A plot treated with fertiliser and 2 pounds of BorreGRO HA-1 per acre produced an average of 9.6% more sweet melons than a similar plot treated with fertiliser alone. All of the increased yield was in more desirable No. 5 melons. Nutrient uptake increased, and soil microbial diversity improved. Thus, this range of product application is recommended for future plantings. BorreGRO HA-1 should be diluted for application and applied through the irrigation system. Application should be as close to planting as possible. BorreGRO HA-1 can be applied with acid fertilisers.

WHAT DOES BORREGRO DO?

Through extensive crop trials, BorreGRO has been shown to improve the structure of soil by aiding aeration, improving water penetration, and increasing water holding capacity.

BorreGRO can also act as a complexing agent, making natural or supplemented soil nutrients such as iron or zinc available to the plant and soil microbes. In addition to being a source of organic carbon, BorreGRO is also a source of the essential nutrient sulphur. Consequently, use of BorreGRO can result in:

- Increased crop yield
- Increased root mass
- More vigorous early stage growth
- Increased vegetative mass
- Increased chlorophyll content

READ MORE:

