



## Greenhouse Experiments -- Michigan State University

SumaGrow was evaluated in greenhouse experiments to determine its efficacy. The initial greenhouse experiment consisted of SumaGrow carried by 12% humic acid compared to 12% humic acid only.

- Baccto premium potting soil was used for growing the selected test plants in the greenhouse experiments.
- For each 12”x12”x12” pot, two split applications of each liquid formula were giving during the crop period
  - 1<sup>st</sup> application – given as soil treatment at the time of sowing
  - 2<sup>nd</sup> application – given at the base of the plant one month after the first application
- No fertilizers or pesticides were added during the crop period
- Plant minerals (minus nitrogen) were added to each treatment 15 days after germination
- A broad spectrum of crops were included in the evaluation:
  - Cereals
  - Vegetables Crops
  - Legumes
  - Forage Grasses
  - Biofuel Grasses

Crop	Plant Height [cm]		Yield [g]	
	SumaGrow	Control	SumaGrow	Control
<b>Rice</b>	65	55	30.85	5.2
<b>Tomato</b>	77	66	1900	380
<b>Soybeans</b>	167.7	98	11.58	5.1
<b>Pea</b>	45	33	13.99	7.52
<b>Okra</b>	130	98	138.7	38.7
<b>Peanut</b>	42	35	21.62	6.48
<b>Pea purple hull</b>	60.96	40.64	14.75	10.75
<b>Garden beans</b>	135	102	48.6	23.5
<b>Wonder bush beans</b>	88.9	63.5	72.9	35.6
<b>Squash</b>	57	36	650	0



