



The Company

Heartland Industries, based in Colorado City, Colorado, has been cultivating cannabis since 2009. They are one of the largest cannabis producers in the world with over 100,000 square feet under cultivation. In addition, all of their grows use zero pesticides.

Situation

As a leading grower in the cannabis market, Heartland Industries is always looking for new and innovative ways to increase the yield and overall health of their grows.

Any change to their existing grow protocol needed to be thoroughly tested and proven before being considered on a broader scale.

Action

Heartland Industries conducted a full grow trial incorporating Worm Power Liquid Extract, an organic fertilizer amendment made from OMRI Listed worm castings, into their existing protocol. The trial was conducted with two different cannabis strains in a greenhouse environment with a grow media consisting of peat, wood fiber and perlite.



“Due to the very positive trial results we currently use Worm Power Liquid Extract throughout our 2-acre facility. Key benefits include reduced transplant time, increased drought and heat tolerance and most importantly a significant boost in yield and terpene content.” **Gevin Gros, Greenhouse Manager**



TRIAL 1

Strain: Grape Krush
Harvest Date: 11/2018



Increase in Dry Bud Weight

Dry Flower Yield Results:

	Control	WormPower
Number of Plants	53	23
Total Bud Weight	28.33 lbs	13.30 lbs
Avg Bud Weight	0.535 lbs	0.578 lbs
Total Dry Bud Weight	10.09 lbs	4.67 lbs
Avg Dry Bud Weight	0.190 lbs	0.203 lbs

Increase in Dry Bud Weight = 6.65%

Terpene Profile Results:

	Control	WormPower
Terpinolene	0.00 mg/g	2.17 mg/g
α-Pinene	1.10 mg/g	1.92 mg/g
β-Caryophyllene	1.93 mg/g	1.63 mg/g
β-Myrcene	2.05 mg/g	1.62 mg/g
β-Pinene	0.71 mg/g	1.33 mg/g
(-)-α-Bisabolol	0.69 mg/g	0.88 mg/g
α-Humulene	0.76 mg/g	0.62 mg/g
δ-Limonene	0.46 mg/g	0.50 mg/g
Linalool	0.30 mg/g	0.44 mg/g
δ-3-Carene	0.00 mg/g	0.44 mg/g
ρ-Cymene	0.00 mg/g	0.38 mg/g
Camphene	0.32 mg/g	0.35 mg/g
(-)-Guaiol	0.41 mg/g	0.35 mg/g
Eucalyptol	0.00 mg/g	0.35 mg/g
γ-Terpinene	0.00 mg/g	0.31 mg/g
α-Terpinene	0.00 mg/g	0.30 mg/g
Caryophyllene Oxide	0.22 mg/g	0.00 mg/g
trans-Nerolidol	0.14 mg/g	0.00 mg/g
Total	9.09 mg/g	13.59 mg/g

Increase in Terpenes = 49.5%

TRIAL 2

Strain: Jabba OG
Harvest Date: 5/2019



Increase in Dry Bud Weight

Dry Flower Yield Results:

	Control	WormPower
Number of Plants	72	17
Total Bud Weight	25.91 lbs	15.18 lbs
Avg Bud Weight	0.360 lbs	0.893 lbs
Total Dry Bud Weight	11.64 lbs	3.76 lbs
Avg Dry Bud Weight	0.162 lbs	0.221 lbs

Increase in Dry Bud Weight = 36.5%

Results

Based on these results, Heartland Industries has now incorporated Worm Power Liquid Extract into their standard protocol for all of their grows and are realizing significant increases in yield, terpenes and overall plant health.