

# FIELD TEST RESULTS

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## FEED PEA



2017

### CHI LIQUID CARBON 9-5-3 INCREASED CROP PRODUCTION AND QUALITY OF FEED PEA

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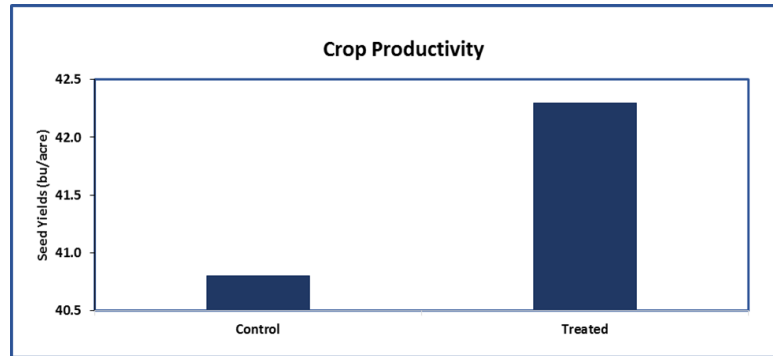
- **Objective:** To use organic matter (humic acids) enhanced nutrients to increase productivity and quality of feed pea for the livestock industry
- **Period:** May to September, 2017
- **Tested product:** CHI Liquid Carbon 9-5-3
- **Tested crop:** Feed pea
- **Location:** Valleyview, Alberta, CANADA
- **Background soil:** Gleyed gray luvisol of fine textured soil (clay, silty clay, and clay) with 2.8% organic matter, pH = 6.1, EC = 0.2 mS/cm, CEC = 13 meq/100 g; nutrients (all in ppm): nitrate-N = 4, P (Bray-P1) = 28, K = 26, S = 10, Ca = 1,120, Mg = 290, Cu = 0.5, Mn = 19, Zn = 4, B < 1, and Fe = 136 (all samples were taken from 0-6 inches depth)
- **Test plot:** 2 x 32 acres

#### ■ DESIGN OF EXPERIMENTS

- Each plot was cultivated and seeded in May 2017 with feed pea and red clover in June 2017
- Tested product was Liquid Carbon 9-5-3 of 6.2 pH, containing 9% N, 5% P<sub>2</sub>O<sub>5</sub>, 3% K<sub>2</sub>O, and organic matter (humic acids) at 6% strength
- Liquid Carbon 9-5-3 was applied in July at the following rates:
  - Control (32 acres) - 0 L/acre
  - Treated (32 acres) - 4 L/acre
- No other nutrients were applied to each plot
- Harvest was completed in September 2017; parameters to be evaluated included seed yields, Normalized Difference Vegetation Index (NDVI) and crude protein (CP)

## ■ RESULTS

The treated plot produced 42.3 bu/acre of seeds, or approx. 4% higher over control at 40.8 bu/acre. Liquid Carbon 9-5-3 resulted in a better plant health (based on how a plant reflects sunlight), indicated by a higher NDVI at 0.85 over 0.78 of control (approx. 9% higher). When the crop was treated, CP was approx. 3% higher (20.0%) over control (19.5%).



## ■ CONCLUSIONS

Organic matter (humic acids) enhanced nutrients improved productivity and quality of feed pea for the livestock industry.

### Crop Quality

	<i>Control</i>	<i>Treated</i>	<i>% Increase</i>
<b>NDVI</b>	0.78	0.85	9
<b>CP (%)</b>	19.5	20.0	3