



## *Phytoremediation of Crude Oil: Effect of Rhizobium and Kelp on Soybean & Wheat under Oil Stress V2*

Safely disposing of oil waste following onshore spills is a world-wide challenge. Landfarming and composting are existing strategies. Are there natural plant enhancers that can increase the growth of plants exposed to oil? This question inspired the idea for this project. The purpose of this project is to see the effect of natural plant enhancers, specifically kelp extract and Rhizobium inoculant, on the morphology of soybean and wheat in oil-treated and control soil. It was hypothesized that Rhizobium will increase soil fertility and shoot length in legumes, while Kelp will increase leaf quality in both species. Surprisingly, Rhizobium and kelp did not make a significant difference in either species tested with 5% oil-contaminated soil. However, they were effective in lower concentrations of 1% and 3%. It is hoped that my information will help to bring about phytoremediation in an oil spill using effective plant enhancers along with resistive plant species.

