

Kelp Ag Product R&D: Liquid Kelp Biostimulant Product Refinement and Field & Market Testing

Update for Southeast Conference:

Project Overview:

This project aims to refine processing methods and evaluate the performance and market potential of an Alaska-made liquid kelp biostimulant derived from farmed sugar kelp. The work includes product formulation, pilot-scale production, laboratory analysis, on-farm field trials, and preliminary market testing.

Recent Progress:

- **Production Refinement:** Processing trials have been completed at three pilot scales (3L, 170L, and 1000L). Analysis indicates consistent macro- and micronutrient profiles across batches, low sodium levels, and heavy metals within safe limits.
- **Laboratory Testing:** Root growth assays indicate strong biostimulant activity at a 100:1 dilution in hydroponic conditions, equivalent to approximately 50:1 in soil applications. This suggests a potent product performance level.
- **Field Trials:** Agricultural field trials are underway at Twitter Creek Farm and the University of Alaska Fairbanks. Beet harvests and dry biomass measurements have been completed; potato harvests have been completed and data is in the process of being collected and organized.
- **Label and Market Preparation:** One-gallon test marketing jugs have been filled and are awaiting final constituent and efficacy data to inform labeling.
- **Conference Participation:** Project partners have submitted an abstract, "*Advancing Liquid Kelp Biostimulant Production: Refinement, Field and Market Testing*," for presentation at the upcoming Alaska Mariculture Conference to share progress and findings to date. CRRC and the Kelp Hub will collaborate on developing a presentation and materials if this abstracted is accepted.

Overall, the project remains on schedule and continues to show promising results indicating the viability of Alaska-produced kelp-based biostimulants for agricultural applications.