

BLUE CARBON GREEN FIELDS

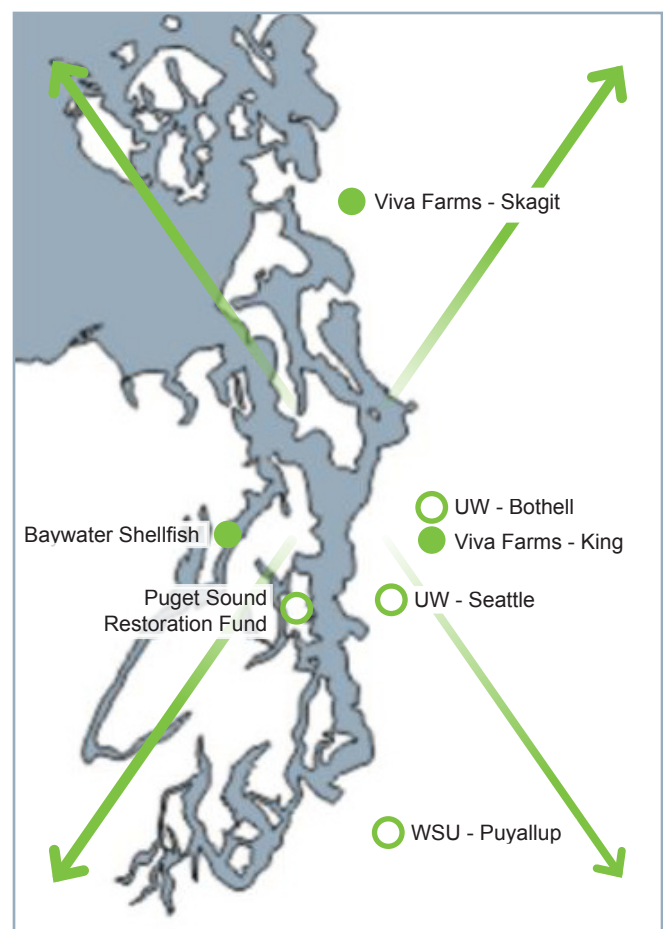
Exploring the innovative and historic practice of using seaweed as a soil amendment

Are you a land farmer who amends your soil to increase its organic carbon? Are you concerned about the changing growing conditions of your soil amendments? Have you ever considered seaweed? [Blue Carbon Green Fields](#) – part of the [Center for Sustainable Commodities Markets program](#) – is seeking to scale the traditional practice of enriching cultivated soils with seaweed. This 5-year (2024-2028) exploratory research project is engaging Puget Sound aquatic (sea) and terrestrial (land) farmers in mutually beneficial collaborations to repurpose ‘nuisance’ seaweed removed from shellfish gear as an agricultural soil amendment, providing land growers of specialty crops with a new tool in their sustainable agriculture toolboxes. Read on to learn more about this effort, and how to find out if your farm is eligible to participate!



Project Background

Most farmers are familiar with carbon-rich amendments like manure, composts and mulches, which can benefit overall soil quality, enhance water and nutrient dynamics and help build resilience to the impacts of changing growing conditions. These amendments can be costly, with origins that can be hard to trace. And, these biomass amendments often mean simply transferring carbon from one place to another. At the same time, in the face of changing growing conditions, it is becoming increasingly clear that we need to seek and explore sustainable alternatives as often as possible.

We believe seaweed is one such alternative. Seaweed, especially green *Ulva* (aka ‘sea lettuce’) – grows quickly and abundantly during warm months, fueled by nutrients from upland sources, the ocean, and the shellfish themselves. When the seaweed decomposes, the carbon and nutrients they’ve absorbed over the growing season are rapidly released, triggering processes that acidify seawater and deprive shellfish of oxygen. These conditions can also harm shellfish and other species sensitive to ocean acidification. Regional sea farms in the Pacific Northwest are looking for solutions to this problem. Repurposing seaweed as a soil amendment could mean healthier farms and lower costs for sea and land farmers alike, as well as potential marketing opportunities and/or premiums stemming from implementation of innovative sustainable practices.



LEGEND

-  Supporting Partner
-  Participating Farm

How will it work?

The BCGF research team will provide comprehensive technical assistance to participating land farmers throughout all phases of the project, including site-specific handling and application of seaweed, coordination with shellfish growers and transportation of seaweed, and supporting on-farm research and soil health monitoring via partnerships at WSU and UW. Together with the farmers, we are exploring the best way and which medium to add the seaweed to the soil. Land farmers will participate in a trial of amending soil with seaweed. In addition, team members will conduct rigorous environmental and economic analyses to capture the benefits of novel seaweed-to-soil practices. Findings will be shared with participating farmers to support project-related marketing and communications. They will also be used to establish a simple verification framework to help participants track inputs, efforts and outcomes, paving the way for future adoption of this practice across the Puget Sound region.

Ultimately, this project will promote sustainable agriculture and build food system resiliency via:

- improved seawater quality and soil health;
- new skills and practices for land and sea farmers;
- community and partnership-building; and
- a more circular approach to farming that moves excess carbon and nutrients out of the marine environment where they can be harmful, into soils where they're needed.

How will you benefit?

Direct economic benefits to participating land farmers include:

- Potentially cost-saving benefits resulting from not having to purchase amendments;
- Seaweed provided free of charge;
- Compensation for participation in the trial;
- Technical assistance from support staff at Viva Farms, UW, and WSU, including soil scientists and researchers;
- Access to a network of potential sea farm vendors;
- Potential marketing opportunities and/or premiums as affiliates of a high-profile USDA sustainable program; and
- The value of improved soil health and produce quality resulting from well-amended soil.

Other benefits include the opportunity to pilot resilient farming practices, contribute to regional sustainable solutions, and showcase the innovative spirit of local producers.

Next steps and what to expect

If you are interested in being considered for participation in this project, please complete the form on the [BCGF project page](#). A team member will contact you within two weeks to schedule a virtual meeting to gather information about your farm (part of our screening process), as well as answer any questions you may have about the project, compensation, timeline, etc.

Thank you for your interest in this project!

Blue Carbon Green Field Project Partners include:

