

Replicable Farm Hub Programs

A REGIONAL RESOURCE FOR THE ADVANCEMENT OF REGENERATIVE AGRICULTURAL TECHNOLOGY PRACTICES FOR SMALL- AND MID-SCALE COMMERCIAL FARMERS

Developed by
DAVID BLUME
Commercial Farmer
Internationally Known Regenerative AgTech Expert
Whiskey Hill Farms Farmer-in-Chief

David Blume and his team of Regenerative AgTech specialists are developing a new equal opportunity program, called the Santa Cruz Farm Hub, to serve the Tri-County commercial farming community. The plan (currently in review with county officials, farm agencies, the USDA, and academic partners) focuses on providing small, underserved farm owners/operators with the resources and training, including hands-on experience, to implement optimized Regenerative AgTech solutions.

The programs of the Santa Cruz Farm Hub are primarily tuned to meet the needs of smaller organic farms. The goal is to develop this model locally and then have it replicated by farmer/operators widely.

By learning to employ these Regenerative AgTech skills, methods, and equipment, farmers will benefit the community via enhanced and expanded economic development, food production, water management, and energy resilience.

Resources, Training, Hands-On Experience

The Santa Cruz Farm Hub program will be based at David Blume's landmark Whiskey Hill Farms operation in Watsonville, California. There, the Hub has access to a demonstration and training center, as well as to a central repository of a unique collection of Regenerative Agriculture resources.

At Whiskey Hill Farms, Blume has built a leading-edge facility that designs, develops, and shares resources, education, technology, and services that are accelerating farmer adoption of the latest Regenerative Agriculture practices.

With the Santa Cruz Farm Hub program, local small- and mid-scale commercial farmers can benefit directly via training, experience, and access to resources. All classes in the Santa Cruz Farm Hub program will focus on the practical use and understanding of methods, tools, and resources. The Hub will provide bilingual classes and workshops and residency and scholarship opportunities to ensure information access for all.

The course curriculum includes focused learning such as:

Seedling Production for Smaller Growers

How to use a semi-automated plug flat seeding system for short runs of vegetables, for small farmers who are currently left unserved by larger plug flat seeding companies that have very high minimum orders. Also learn

how to produce starts of perennial crops like passion fruit, floristic vegetation, and specialty fruit and vegetables, crops that will be inexpensively produced from tissue culture at the Farm Hub.

Greenhouse Construction

Building greenhouses using a hydraulic tubing bender and specialized plastic covers. The use of greenhouses increases the range of crops possible to grow in a region and dovetails with the USDA program to finance initial greenhouses on a farm.

Expertise, Access, Services

The Santa Cruz Farm Hub will make these resources available to local farmers practicing Regenerative Agriculture:

Cold Storage

Hub-centered, renewably powered cold storage for all farmers' crops. Crop handling and shipping for crops from all the farmers in the Hub service area from the cold storage facility.

Marketing for Farm Hub Farmers

Marketing staff to facilitate the wholesale marketing of member crops. Online retail marketing of niche crops, such as local varieties developed as local favorites. Community discount marketing of second-quality crops to food kitchens, community fresh food programs, and other institutions that don't require crops with retail visual expectations.

Soil Bacterial/Fungal Inoculant

Unique liquid inoculant produced by the Hub containing dozens of species of useful bacteria and fungi to regenerate impoverished soil. Applied to the field by the Farm Hub with specialized equipment too expensive for each farmer to individually own.

Soil Deep Treatment

Initially provided as a low-cost service to regenerate soil and restore biological fertility. Regional service using a deep vibrating ripping plow with ability to deliver pelletized inoculated beads/and or liquids through the soil horizons to one meter deep. The delivered biology works to keep the fractured soil from sealing back up, preserving deep access for roots with mycorrhizal fungi and biofilm-generating bacteria.

Pelletized Beads for Soil Regeneration

In places beyond the reasonable service area of the Farm Hub's Soil Deep Treatment, pelletized beads would assist farmers in converting to RegenerativeAg.

Locally Produced Fertilizer

Fertilizer made from local agricultural waste, by-product liquids, or biodiesel plant waste, or other food processing waste.

Seaweed Farming for Fertilizer and Cellulosic Alcohol in Coastal Zones

Fertilizer biologically extracted from seaweed, which absorbs surplus land-based nutrients from fertilizer runoff and discharged municipal sewage, for production of organic fertilizer and safe-to-discharge water. Novel seaweed carbohydrates need minimal pretreatment. Using proprietary enzymes combined with a solid catalyst, continuous hydrolysis, and specialized biology, cellulosic alcohol becomes a practical fuel.

By-Product Animal Feed/Human-Edible Complete Protein Production

A practical process for making complete balanced protein in both developed and less developed technological settings, avoiding the need for high pressure or reverse osmosis separation of protein from solution. Requires no expensive additions of refined proteins to the base extract to satisfy essential amino acid balance in the combined plant/fungal feedstocks. Base material is provided from by-products from biofilter crop water treatment, combined with material from spent mash. In addition, in some embodiments, the process generates densified plant-fiber briquets with a renewable binder, for replacement of coal in solid-fueled steam/utility boilers.

Alcohol Production Plant

Whiskey Hill Farms' small, appropriate-scale alcohol production plant provides fuel for Farm Hub needs, including farm equipment and vehicles. Training site for local mechanics and farmers in how to convert diesel engines to dedicated alcohol fueled or to dual fuel.

David Blume's Major Diesel Engine Technology

Next-phase projects will formalize hardware that can be marketed for advanced high-mileage conversion of diesel engines using David Blume's alcohol blends. Preliminary discussions with a major German engine maker to manufacture our tech for use with major engine groups around the world. Maersk shipping has built the first alcohol-powered container ships after consultation with David Blume.

Phase Two Fully Continuous Advanced Fermentation/Distillation

Current technology relies on multiple batch fermentation coupled with continuous distillation. David Blume's new advanced combined continuous fermentation/distillation is the world's first commercially practical advanced system development of its kind. Ready to build beyond lab scale to floor scale system for practical design troubleshooting.

Reaching Out

David Blume is looking to ally with larger innovation-focused partners to leverage his and his team's ability to provide solutions that elegantly and profitably disrupt current thinking — setting new standards for products using regenerative design in order to *more efficiently fulfill needs, while healing the planet from past poorly designed solutions.*

David Blume cordially invites you to contact him to discuss the scope of the project, its mission, its replicability, and its objectives, as well as your possible involvement and support for this vital community-focused small-farm program.

farmerdave@permaculture.com
371 Calabasas Road
Watsonville, California 95076 USA
831-345-6716 direct line