



CALIFORNIA DEPARTMENT OF
FOOD & AGRICULTURE

Karen Ross, Secretary

May 11, 2023

Chair Don Cameron
State Board of Food and Agriculture
California Department of Food and Agriculture
1220 N Street
Sacramento CA, 95814

Dear Chair Cameron and Members of the State Board,

On October 17, the State Board of Food and Agriculture Sent a letter to Chair Dlott asking for assistance from the Environmental Farming Act Science Advisory Panel (EFA SAP, or “Panel”) with defining regenerative agriculture.

The Panel took two parallel approaches to developing a framework: working with CDFA staff to review literature on the topic, and hearing from a panel of experts as well as members of the public who attended two public meetings on the topic, on December 13, 2022, and February 9, 2023.

The panel consisted of subject matter experts Dr. Margaret Smither-Kopperl from the Lockeford Plant Materials Center USDA Resources Conservation Service, Dr. Cristina Lazcano, associate professor from Soil Biodiversity and Health Lab, UC Davis, Timothy York, CEO of the California Leafy Green Marketing Agreement, and Dr. Daniel Rath, agricultural soil carbon scientist from the Natural Resources Defense Council (NRDC). Drs. Lazcano, Smither-Kopperl, and Rath provided information and context for a variety of factors that warrant consideration while defining “regenerative agriculture,” such as an emphasis on soil and soil health, as well as a question of what emphasis to put on biodiversity in soil, considering that research as to the importance of soil biodiversity is still being done and there are a lot of unknowns.

The panel also cited soil health and biodiversity as core principles, as well as cultural practices, farmer well-being, community relations, human health, and farmer innovation as elements of regenerative agriculture. They emphasized the need for measurement and monitoring, the need to accommodate quickly changing environments, and to allow for the variable effectiveness of particular practices in different environments.

The panel also heard from staff who reviewed two literature reviews, one from Natural Resources Defense Council, and one from L. Schreefel, et. al, entitled “Regenerative agriculture – the soil is the base” (Wageningen, the Netherlands, 2020).

Following the panel and a staff presentation on the literature review, some key topics that emerged from the following Science Advisory Panel discussion included:

- The need to define the desired goals and outcomes from “regenerative agriculture,” including environmental, social, health, and economic goals.



- A need to guard against greenwashing.
- A definition that would accommodate site-specific contexts, which as we know in California are incredibly variable with more than 400 crops and more than 1,500 soil series.
- How data would be shared given many farmers concerns about anonymity and privacy.

The Panel also convened a small working group to further discuss the topic. The working group then brought back a developed framework to the full panel on March 7, 2023, where it was finalized.

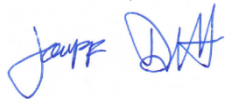
The recommended EFA SAP's framework for a definition of Regenerative Agriculture includes:

1. Being applicable, relevant, and useful for California Agriculture.
2. Leading to positive impacts on California's environmental, social, human health, and economic goals, including climate goals.
3. Providing measurable and verifiable outcomes, keeping in mind variability throughout the state, and – emphasizing outcomes farmers and ranchers can easily measure and that are not economically burdensome to measure.
4. Allowing for context specific outcomes (in terms of scale, geographic location, diverse and/or innovative agricultural systems, goals, etc.)
5. Include the idea that building soil health, including elements of physical quality, carbon sequestered, soil biodiversity, and alleviation of climate change (e.g., practices funded by the CDFA Healthy Soils Program) as a foundational element.

The Panel thanks the State Board for this opportunity to provide input into this important process. We look forward to following the public workshops to come and have faith that the State Board will come to a decision on a definition that will encompass all the elements above.

Sincerely,

Jeff Dlott, Chair



Vicky Dawley, Vice Chair



Environmental Farming Act Science Advisory Panel

cc: Secretary Karen Ross
Josh Eddy

Attachments:

L. Schreefel, et. al, entitled "Regenerative agriculture – the soil is the base" (Wageningen, the Netherlands, 2020).

Scientific Literature Review of Regenerative Agricultural Definitions, Practices, and Outcomes. Natural Resources Defense Council. December 22, 2022.