

REGENERATIVE AGRICULTURE



Farming and grazing practices which use natural plant biological processes to build soil health and improve carbon drawdown, the water cycle, crop resilience and nutrient density.

SUSTAINABLE AGRICULTURE



The integration of three primary objectives: a healthy environment, economic profitability and social and economic equity, to meet society's current food and fiber needs without compromising the ability to meet these needs by future generations.



SAN DIEGO COUNTY CLIMATE & AGRICULTURE

GLOSSARY OF COMMON TERMS

REGENERATIVE ORGANIC AGRICULTURE



A holistic approach to farming, which builds on USDA certified organic standards and encourages innovation and improvement of environmental, social and economic measures including soil health, land management, animal welfare and farmer and worker fairness. Regenerative Organic Certification (ROC) criteria were introduced in 2018.

SOIL HEALTH



The sustained capacity of soil as a living ecosystem which supports food and fiber production to meet human needs and contributes to the delivery of other ecosystem services for people as well as towards conserving ecosystem biodiversity.



UC
CE UNIVERSITY OF CALIFORNIA
Agriculture and Natural Resources
Cooperative Extension

ucanr.edu/cesandiego



It is the policy of the University of California (UC) and the UC Division of Agriculture & Natural Resources not to engage in discrimination against or harassment of any person in any of its programs or activities (Complete nondiscrimination policy statement can be found at <http://ucanr.edu/sites/anrstaff/files/215244.pdf>). Inquiries regarding ANR's nondiscrimination policies may be directed to John I. Sims, Affirmative Action Compliance Officer/Title IX Officer, University of California, Agriculture and Natural Resources, 2801 Second Street, Davis, CA 95618, (530) 750-1397.

Food production and distribution are impacted by climate trends on several fronts: economically, environmentally and politically. Prolonged droughts, extreme weather-related natural disasters and ever-changing geopolitical and global market environments have led to an increased number of studies, education and outreach efforts and programs to assist growers in adapting best management practices. Various terms have emerged to reference areas of focus and or interdisciplinary efforts and systems. This brochure is a quick reference to some of these commonly used terms.

AGROECOLOGY



The interactive approach, study or participatory framework, which integrates different types of knowledge, experiences and values to apply ecological, economic and social concepts to the design and management of entire food systems.

CARBON SEQUESTRATION



The long-term removal, capturing and/or storing of atmospheric carbon dioxide (CO₂) with the goal of reducing climate change. Strategies for carbon sequestration may include natural or artificial processes to hold CO₂ in solid or liquid form.

FOOD SYSTEM



The interconnected resources, processes and infrastructures for feeding people from crop production and processing to marketing and distribution to food consumption and disposal.

CARBON FARMING



The use of food production practices which improve the rate carbon dioxide (CO₂) is released into the atmosphere and/or improve the rate carbon is stored by plant material and/or soil, reducing greenhouse gas emissions, such as amending soil with compost.

ECOSYSTEM SERVICES



The direct and indirect benefits people receive from healthy ecological systems, which contribute to personal and community well-being. Types of services are categorized as supporting, provisioning, regulating and/or cultural services (e.g. water, food, medicine).

GREENHOUSE GAS EMISSIONS (GHG)



Gases emitted by natural or artificial activities and processes, which trap heat in the atmosphere and impact earth's atmospheric greenhouse effect. The four primary greenhouse gases are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O) and fluorinated gases. The EPA reports CO₂ was **81%** of GHG in 2018.

CLIMATE SMART AGRICULTURE



An approach which promotes increased agricultural productivity and incomes, builds resiliency to climate change, and reduces greenhouse gas emissions.

ECOSYSTEM SERVICES SUPPORTED BY SOIL HEALTH



Soil health conditions can have impact on a variety of direct and indirect agroecosystem services such as water quality and supply, erosion control, atmospheric composition and climate regulation, pollutant strength, pest and disease control and biodiversity conservation.

ORGANIC AGRICULTURE



A food production system without use of conventional pesticides, petroleum-based fertilizers, sewage sludge-based fertilizers, herbicides, genetic engineering (biotechnology), antibiotics, growth hormones, or irradiation. National organic standards for food production, livestock management and land management must be met to be designated 'Certified Organic.'