

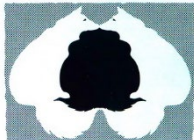


FAMILY OWNED
RAW FARM
1998



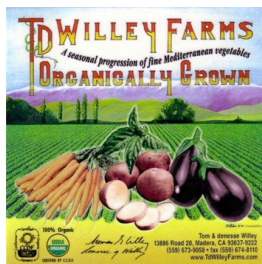
TWIN PEAKS
orchards

FOX FIBRE

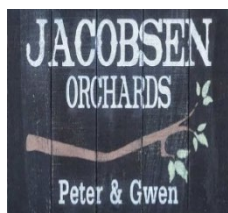


colorganic

WINTERS, CA



SIERRA ORCHARDS



Fresh Starts
Organic Farm



1980



BONTERRA
ORGANIC ESTATES

Organic
trade association
SINCE 1985

ROBERT SINSKEY
RSV
VINEYARDS



Cloverfield
Organic Farm



The
Peterson Family
since 1893



BARLOW
VINEYARDS

SPOTTSWOODE

TRUE
ORGANIC PRODUCTS, INC



FRONTIER
CO-OP
MEMBER OWNED SINCE 1976



ESTATE VINEYARD & WINERY



tilth
ALLIANCE
WHERE GOOD FOOD GROWS

CPR
Californians For
Pesticide Reform
Californianos
para la Reforma
de los Pesticidas

**Friends of
the Earth** **TIKVAH**

August 12, 2024

Regenerative Agriculture Task Force
California State Board of Food & Agriculture
California Department of Food and Agriculture
1220 N Street
Sacramento, CA 95814

Re: Farmer Input on the Definition of Regenerative Agriculture

Dear Regenerative Agriculture Task Force:

We grow, raise, process, manufacture, and sell certified organic food and fiber as well as represent groups that support organic agriculture in California. We ask the Regenerative Agriculture Task Force (Task Force) to adopt a definition of regenerative agriculture that starts with certified organic.

You cannot regenerate and rely on synthetic inputs. We agree with the Environmental Farming Act Science Advisory Panel (EFA SAP) that regeneration stands on four pillars: environmental, human health, social, and economic.¹ Synthetic inputs conflict with three of the pillars.

- Environmental: Synthetic inputs are derived from fossil fuels and contribute to catastrophic biodiversity collapse and toxic pollution.² Synthetic fertilizers and pesticides disrupt healthy soil processes like decomposition and nutrient cycling and harm soil microbial and invertebrate communities.^{3,4}
- Human Health: Synthetic pesticide exposure is linked to neurodegenerative diseases like Parkinson's disease,^{5,6} cancer,^{7,8} Attention Deficit Disorder⁹ and other neurobehavioral problems,¹⁰ diabetes,¹¹ asthma,¹² endocrine disruption,¹³ reproductive disorders,¹⁴ and other serious health harms.

¹ Environmental Farming Act Science Advisory Panel. (2023). *Framework for a definition of regenerative agriculture*. Sacramento, CA: California Department of Food and Agriculture.

² Drugmand, D., Feit, S., Fuhr, L., & Muffett, C. (2022). Fossils, Fertilizers, and False Solutions: How Laundering Fossil Fuels in Agrochemicals Puts the Climate and the Planet at Risk. The Center for International Law. <https://www.ciel.org/wp-content/uploads/2022/10/Fossils-Fertilizers-and-False-Solutions.pdf>.

³ Tripathi, S., Srivastava, P., Devi, R.S., Bhadouria, R. (2020). Influence of synthetic fertilizers and pesticides on soil health and soil microbiology, *Agrochemicals Detection, Treatment and Remediation*, pp 25-54.

⁴ Menegat, S., Ledo, A., & Tirado, R. (2022). Greenhouse gas emissions from global production and use of nitrogen synthetic fertilizers in agriculture. *Nature*, 12(14490). doi:10.21203/rs.3.rs-1007419/v1

⁵ Paul KC, Sinshheimer JS, Rhodes SL, Cockburn M, Bronstein J, Ritz B. (2016). Organophosphate pesticide exposures, nitric oxide synthase gene variants, and gene-pesticide interactions in a case-control study of Parkinson's disease, California (USA). *Environmental Health Perspectives*, 124(5):570-577, PMID: 26383258, 10.1289/ehp.1408976.

⁶ Shrestha S, Parks CG, Umbach DM, Richards-Barber M, Hofmann JN, Chen H, et al. 2020. Pesticide use and incident Parkinson's disease in a cohort of farmers and their spouses. *Environ Research*, 191:110186, PMID: 32919961, 10.1016/j.envres.2020.110186.

⁷ Alavanja MC, Hofmann JN, Lynch CF, Hines CJ, Barry KH, Barker J, et al. (2014). Non-Hodgkin lymphoma risk and insecticide, fungicide and fumigant use in the Agricultural Health Study. *PLoS One*, 9(10):e109332, PMID: 25337994, 10.1371/journal.pone.0109332.

⁸ Hofmann JN, Beane Freeman LE, Murata K, Andreotti G, Shearer JJ, Thoren K, et al. (2021). Lifetime pesticide use and monoclonal gammopathy of undetermined significance in a prospective cohort of male farmers. *Environmental Health Perspective*, 129(1):017003, PMID: 33404262, 10.1289/EHP6960.

⁹ Marks, A. R., Harley, K., Bradman, A., Kogut, K., Barr, D. B., Johnson, C., ... Eskenazi, B. (2010). Organophosphate Pesticide Exposure and Attention in Young Mexican-American Children: The CHAMACOS Study. *Environmental Health Perspectives*, 118(12), 1768-1774.

¹⁰ Whyatt, R. M., Rauh, V., Barr, D. B., Camann, D. E., Andrews, H. F., Garfinkel, R., ... Perera, F. P. (2004). Prenatal Insecticide Exposures and Birth Weight and Length among an Urban Minority Cohort. *Environmental Health Perspectives*, 112(10), 1125-1132.

¹¹ Lim S, Ahn SY, Song IC, Chung MH, Jang HC, et al. (2009). Chronic Exposure to the Herbicide, Atrazine, Causes Mitochondrial Dysfunction and Insulin Resistance. *PLOS ONE*, 4(4), e5186.

¹² Hernandez, A.F., Parron, T., Alarcon, R. Pesticides and asthma. (2011). *Curr Opin Allergy Clin Immunol*, 11(2), 90-96.

¹³ Mnif W, Hassine Al, Bouaziz A, Bartegi A, Thomas O, Roig B. (2011). Effect of endocrine disruptor pesticides: a review. *Int J Environ Res Public Health*, 8(6):2265-303. doi: 10.3390/ijerph8062265. Epub 2011 Jun 17. PMID: 21776230; PMCID: PMC3138025.

¹⁴ Fucic A, Duca RC, Galea KS, Maric T, Garcia K, Bloom MS, Andersen HR, Vena JE. (2021). Reproductive Health Risks Associated with Occupational and Environmental Exposure to Pesticides. *Int J Environ Res Public Health*, 18(12):6576. doi: 10.3390/ijerph18126576. PMID: 34207279; PMCID: PMC8296378.

- Social: Synthetic pesticide manufacturing, storage, and application disproportionately harm Brown and Black communities.¹⁵ California EPA has found that pesticide use is the pollution burden with the greatest racial, ethnic, and income disparities in California.¹⁶ Latino children are 91% more likely to attend schools with the highest pesticide exposure.¹⁷

Organic certification is the only government program that prohibits the use of synthetic inputs and thus regenerates community health.¹⁸ Moreover, organic farmers adopt whole farm regenerative systems. They must create an *organic system plan* that outlines every component of the farm from agronomic practices, natural resource conservation, and sustainable pest management to recordkeeping, on-farm processing, marketing, and listing out every material the farmer anticipates using.¹⁹ Organic certification demands farmers consider human health as much as soil or economic health. While organic certification is a starting point of a regenerative system, it is not the finish line. Farmers continue to move beyond organic certification under the Regenerative Organic Certified (ROC) program to implement worker welfare standards, including living wages and safe working conditions.²⁰ ROC is unique because it is the only private certification program with an agreement with USDA to use the term organic because it builds on organic standards.

At the same time, farmers do not regenerate overnight. Being a regenerative farmer is hard. The term does not yet apply to most farmers in California. It requires adopting whole farm regenerative systems with environmental, human health, and economic benefits. While the bar of being regenerative is high, many farmers are on the pathway to becoming regenerative, and farmers at every stage should receive recognition for their progress and contributions. We recommend the Task Force adopt the below regenerative pathway that both reserves the definition of regenerative for farmers who adopt regenerative systems and establishes a regenerative pathway that recognizes farmers at each step.

Steps	Implement Climate Smart Practices			Reduce Chemical Inputs		Adopt Regenerative Systems		
Investment Points	1	1	1	2	2	3	4	4
Program	State Water Efficiency Enhancement Program (SWEEP)	Healthy Soils Program (HSP)	Alternative Manure Management Program (AAMP)	New Sustainable Pest Management Program (SPM) ²¹	Organic Transition Program (OTP)	Certified Organic	Regenerative Organic Certified	Indigenous Ecological Knowledge
Verification	Enrolled in SWEEP	Enrolled in HSP	Enrolled in AMMP	Enrolled in SPM	Enrolled in OTP	USDA certification	Third-party verification and USDA organic certification	Determined collaboratively with Native communities and/or Native individuals, as appropriate
Public Benefit	Environmental	Environmental	Environmental	Environmental, Human Health	Environmental, Human Health	Environmental, Human Health, Economic	Environmental, Human Health, Economic, Social	

¹⁵ Donley, N., Bullard, R.D., Economos, J. et al. (2022). Pesticides and environmental injustice in the USA: root causes, current regulatory reinforcement and a path forward. *BMC Public Health*, 22: 708.

¹⁶ Cushing, L., Faust, J., August, L.M., Cendak, R., Wieland, W., and Alexeeff, G. (2015) Racial/Ethnic Disparities in Cumulative Environmental Health Impacts in California: Evidence From a Statewide Environmental Justice Screening Tool (CalEnviroScreen 1.1), *American Journal of Public Health*, 105: 2341-2348.

¹⁷ California Environmental Health Tracking Program. (2014). *Agricultural pesticide use near public schools in California*, Sacramento, CA: California Department of Public Health.

¹⁸ 7 U.S.C. §6504.

¹⁹ 7 CFR § 205.201- Organic production and handling system plan.

²⁰ Regenerative Organic Certified (ROC), Framework for Regenerative Organic Certified. Available at <https://regenorganic.org/wp-content/uploads/2023/03/Regenerative-Organic-Certified-Framework.pdf>.

²¹ Currently, a Sustainable Pest Management Program (SPM) does not exist. The State has established SPM targets, and an incentive program could help the State achieve these targets. This framework should include whatever program the State develops to meet SPM targets.

This pathway establishes a framework that builds on existing State programs that support regenerative practices. Farmers enrolled in the Healthy Soils Program or Alternative Manure Management Program are implementing climate-smart, regenerative practices that benefit the environment. Farmers implementing sustainable pest management strategies are adopting regenerative practices and reducing synthetic inputs with environmental and human health benefits. These programs focus on a single aspect of the farm. The shift to adopting a regenerative system indicates that a farmer not only implements a series of practices but also considers the whole farm system.

While many farmers approach their operations holistically regardless of certifications, the State must rely on third-party, verified systems of farming to remain accountable to the public. A State definition of regenerative agriculture should create opportunities for farmers by channeling public dollars to public programs, whether state, federal, or Tribal. Our regenerative pathway establishes a rubric for how the State can distribute incentives based on verification and public benefit. The following examples highlight the pathway in practice:

- The State could create regenerative acreage targets. A regenerative acreage target would encompass all land that is certified organic, regenerative organic certified, and managed by Indigenous Ecological Knowledge.
- The State could provide schools, hospitals, and other institutions with additional funding to procure regenerative food. The State could tier funds based on the pathway. For example, a school would receive a 1x increase for procuring food from farmers enrolled in the Healthy Soils Program and a 3x increase for sourcing organic food.
- The State could establish direct payments or a tax credit to incentivize regenerative farming. The State could provide a 1x tax credit for farmers enrolled in the Healthy Soils Program and a 4x tax credit for Regenerative Organic Certified farmers.

While many details still need to be worked out, the regenerative pathway offers a practical framework that ties public investment to verification and public benefit. We understand CDFA may be hesitant to codify a definition that incorporates programs that may change over time. This discussion is best suited to the legislative process, where stakeholders and policymakers can weigh in on the exact language to be enacted. We ask the Task Force to be as explicit as possible in their recommendation by including our pathway. Referencing existing programs removes ambiguity and minimizes room for interpretation, thereby ensuring the Task Force provides clear guidance to CDFA that moves beyond EFA SAP's general framework.

We offer this pathway to create a more inclusive, broader tent that recognizes farmers at every step to regeneration. Our intention is to pave a path forward. However, we must also be clear that a definition of regenerative agriculture not grounded in organic certification will undermine the organic market and could put organic farmers out of business. Organic farmers cannot compete with regenerative farmers who are subsidized by the State but not held to the same high bar. Moreover, a loose definition of regenerative agriculture will erode trust in the organic label. Consumers buy organic food for health reasons and because it is pesticide free and environmentally friendly.²² Businesses already use regenerative labels to tap into this consumer demand for values-based products but without strict standards or third-party verification. A State definition could legitimize these regenerative labels at the grocery store, exacerbating consumer confusion and jeopardizing consumers' willingness to pay for organic. This, in turn, undermines the State's ability to reach its climate target of 10% organic cropland by 2030.²³

We ask the Task Force to adopt the regenerative pathway to maintain the integrity of regenerative and organic farming while also recognizing the broader contributions of farmers throughout California. Thank you for your consideration.

²² Gundala RR, Singh A. What motivates consumers to buy organic foods? Results of an empirical study in the United States. *PLoS One*. 2021 Sep 10;16(9):e0257288. doi: 10.1371/journal.pone.0257288. PMID: 34506582; PMCID: PMC8432837.

²³ Administration of Governor Newsom. (2024). *California's Nature-Based Solutions Climate Targets As Required by Assembly Bill 1757 (2022, C. Garcia)*. Sacramento, CA: California Natural Resources Agency.

Sincerely,

Rebekah Weber, California Certified Organic Farmers
Aaron McAfee, Raw Farm
Albert Straus, Straus Family Creamery
Anna deLaski, Solminer Wine Co.
Ann Weigt, Frey Vineyards
Aron Weinkauf, Spottswoode Estate Vineyard and Winery
Barr Smith, Barlow Vineyards
Blaine Boyer, Boyer Ranch
Bryce Loewen, Blossom Bluff Orchards
Camelia Enriquez, Twin Peaks Orchards
Carole Flaherty, Quail Run Orchard
Cathryn Couch, Ceres Community Project
Chad Crivelli, Live Oak Dairy
Craig McNamara, Sierra Orchards
Craig Stevenson, Lundberg Family Farms
Cyndi Norwitz, Tikvah Organics
Doug O'Brien, Pleasure Point Farm
Genevieve Albers, Traditional Medicinals
Gina Colfer, PCA/CCA Sustainability SSp.
Greg Sommerville, Frontier Co-op
Héktor Calderón, Three Feathers Farm
Jane Sellen and Angel Garcia, Californians for Pesticide Reform
Jim Miller, Sweetwater Farm
John Chaix, Chaix Family Vineyards
Jordan Lonborg, Tablas Creek Vineyard
Joseph Brinkley, Bonterra Organic Estates
Judith Redmond, Farmer
Lindsey Pratt, Sierra Harvest
Mark Squire, Good Earth Natural Foods
Max Darcey, Navitas Organics
Melissa Spear, Tilth Alliance
Michael Menes, True Organic Products
Michelle Gregory, Gregory Palm Farms
Mike Dill, Organically Grown Company
Nathan Harkleroad, Agriculture and Land-Based
Paul Muradian, Paul Muradian Organic
Peter Jacobsen, Jacobsen Orchards
Paul Glowaski, Dinner Bell Farm
Philip LaRocca, LaRocca Vineyards
Randi Pratini, Fresh Starts Organic Farm
Reggie Knox, California FarmLink
Rich and Laura Everett, Everett Family Farm
Rob Sinskey, Robert Sinskey Vineyards & Wilding Farm
Robin Taylor, Sun Grown Organic Distributors

Sally Fox, Viriditas Farm
Sarah Starman, Friends of the Earth
Scott Murray, Edge of Urban Farm
Steve Koretoff, Purity Organics, Inc.
Steven Cardoza, Cardoza & Cardoza Farming Co.
Susan Pelican, Galaxy Farm
Susan Truscott, Cloverfield Organic Farm
Thaddeus Barsotti, Capay Organic
Tom Chapman, Organic Trade Association
Tom Willey, T&D Willey Farms
Van Latham, Latham Avocados
Vance Rose, Jonive Wine
Vernon Peterson, Abundant Harvest Organics & The Peterson Family