



# Alliance of Nurses for Healthy Environments

Bringing Science and Passion to the Environmental Health Movement

August 3, 2021

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California Air Resources Board (CARB)  
1001 I Street  
Sacramento, California, 95814  
(Submitted Online)

Re: 2022 Scoping Plan Update *Healthy Soil sequesters Carbon and provides healthy food*, Organic Farming is a Nature Based Solution to our Climate Crisis

Dear Members of the California Air Resources Board:

The CA Alliance of Nurses for Healthy Environments works to eliminate the environmental causes of disease. We appreciate this opportunity to comment on the CARB 2022 Scoping Plan. The Air Resources Board's commitment to promote and protect public health, welfare, and ecological resources guided by Environmental Justice must be reflected in this plan.

There are approximately 100 million acres of land in California, 43 million acres are used for agriculture. 27 million acres are cropland and balance, 16 million acres, are grazing land.

Only 1.1 million acres of California crop land is farmed organically.

CA ANHE participated in the Natural and Working Lands update workshop which CARB hosted on July 20. We were disheartened that carbon sequestration from healthy soil (not poisoned by pesticides) was not included in the plan because it would "take too long" to see results. And later in the discussion the comment was made that "carbon sequestration from healthy farming is too difficult to measure" and that it will not be included in the meta-analysis of the literature being conducted for the plan because there is not much research.

Regarding the first comment: There is an old adage: the seeds of trees we plant today will provide shade for generations to come. So is true of our soil. Restoring 42 ( of the 43) million acres of soil to health will feed generations to come *and* will sequester carbon. We must not delay working toward healthy soil because "it will take too long."

We learned in nursing school and graduate education that "if you don't *measure* it, you can't *manage* it." For CA staff scientists to say that the amount of carbon sequestered from healthy soil cannot be measured demonstrates a lack of scientific knowledge and for this literature to not be included in the meta-analysis sheds a poor light on the entire plan.

I asked a question specifically about pesticide use and the inadequate and uniformed answer furthered my dismay, the response was that there were only two pesticides that contribute to greenhouse gas emissions - namely methyl bromide and sulfuryl fluoride and methyl bromide was being phased out. This answer demonstrates a lack of knowledge, understanding and scope of the problem. While the ARB at least acknowledge that these pesticides are



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indeed greenhouse gases, the ARB should be consulting with the Department of Pesticide Regulation (DPR) about these and other greenhouse gas producing pesticides and fumigants.

Why is it that the ARB continues to ignore the science regarding the contribution of the heavily used fumigant pesticides to California's greenhouse gas emissions? Why is it that the ARB continues to ignore the air pollution caused by pesticides (as documented by state air monitors).

Please include pesticides in this scoping plan. We must *measure* the hazardous pollution drift so we can begin to *manage* it and move away from the use of poisonous fumigant pesticides beginning with chloropicrin, metam sodium, metam potassium and dazomet so baselines for *management* or elimination can be established

It is troublesome that DPR is not involved in this process. We urge you to involve them and work outside of the silos you are so comfortable working within. Please add DPR to the list of 18 departments and agencies as collaborating partners on the 2022 Scoping Plan.

Sequestering carbon in soil is an important tool toward achieving carbon neutrality. There *is* research from California's own. UC California which heralds organic farming as an effective method to sequester carbon and reduce emissions, particularly of methane. Please review the citations in the CPR comments and include this research in the meta-analysis which provides a framework for the scoping plan. This research must not be ignored. It also documents that carbon sequestration can and is being measured!

Failing to document and include this important scientific proof in the scoping plan not only misses an important strategy but also may result in increased use of soil poisoning pesticides. Not to mention the Environmental Justice (EJ) implications of continuing to allow farmworkers and communities who are largely low income LatinX peoples to be exposed to these hazardous disease- and cancer-causing pesticides. Reducing pesticide use starting now is an important EJ issue. Please do not ignore this, abide by the ARB's commitment to promote and protect public health, welfare, and ecological resources and a commitment to environmental justice.

Please do not ignore this, abide by the ARB's commitment to promote and protect public health, welfare, and ecological resources and a commitment to environmental justice. The fact that pesticides contribute to Climate Change is irrefutable. CPR in their comments has highlighted numerous studies have concluded that use of synthetic pesticides results in greenhouse gas emissions. In addition to greenhouse gases, they volatilize and react with sunlight to form gases harmful to plants, animals and humans. This is another Environmental and Health Justice issue.

Pesticides destroy healthy soil, they kill microorganisms, and healthy bacteria and earthworm populations. Research shows that soil microbial activity decreases proportionally to the amount of pesticides applied to the soil. California must look toward healthy soil as part of its plan to reduce greenhouse gases and to protect farmworkers and their families.

The CA Alliance of Nurses for Healthy Environments would like to associate our organization with the recommendations of CPR which include: Urging the Air Resources Board to:

- ✓ Add pesticide use reduction and organic farming to the practices under the agriculture pathway that the state will use to meet its AB 32 goals under the Natural and Working Lands program, and include specific acreage and pesticide use reduction goals
- ✓ Add the Department of Pesticide Regulation (DPR) as a primary collaborating department with CARB on the 2022 Scoping Plan Update, in accordance with § 38561(a) of the California Health and Safety Code.
- ✓ Develop a greenhouse gas measurement tool that enables the state to *measure* the greenhouse gas emissions of the full life cycle of synthetic pesticides (from production to end use)



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- ✓ Fully integrate the Environmental Justice Advisory Committee (EJAC) into future Workshops and Board Meetings, rather than schedule separate EJAC sessions, and ensure the committee can provide meaningful input into all pre-scoping activities, research, workshops and the 2022 Scoping Plan itself
- ✓ Adopt a holistic approach towards climate change mitigation in agricultural systems that incorporates outcomes to community health rather than agriculture and climate change alone
- ✓ We also urge CARB to counter the siloization that has kept pesticides out of prior scoping plans by coordinating efforts across agencies and departments to adopt the following solutions to help move agriculture in California away from reliance on chemical pesticides in support of the state's climate change goals:
  - Align incentives to favor the reduction of pesticide use in agriculture
  - Identify a sustainable funding source to support agroecological and regenerative organic farming. All public funding, research and implementation support should be shifted away from chemical reliance to support agroecological and regenerative organic farming
  - Provide funding, technical assistance and other support to help California farmers transition off of agricultural pesticides to more ecological farming that focuses on prevention of pest and disease problems through building resilience through support of plant vigor and soil health
  - Support the transition to organic farming by subsidizing expenses including the development of organic plans and certification, particularly for farmers of color and small to midsize farms
  - Establish scheduled public procurement goals, requiring government institutions such as public schools, hospitals, prisons, etc., to gradually increase the percentage of their purchases from organic farmers, especially small- and medium-sized operations and farmers of color, with a goal of 100% organic by 2040
  - Allocate resources for studying the long-term impacts of pesticides on human health in California agriculture

We hope you will consider these comments and the scientific work of Californian's for Pesticide Reform whose work contributed to these comments.

Sincerely

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