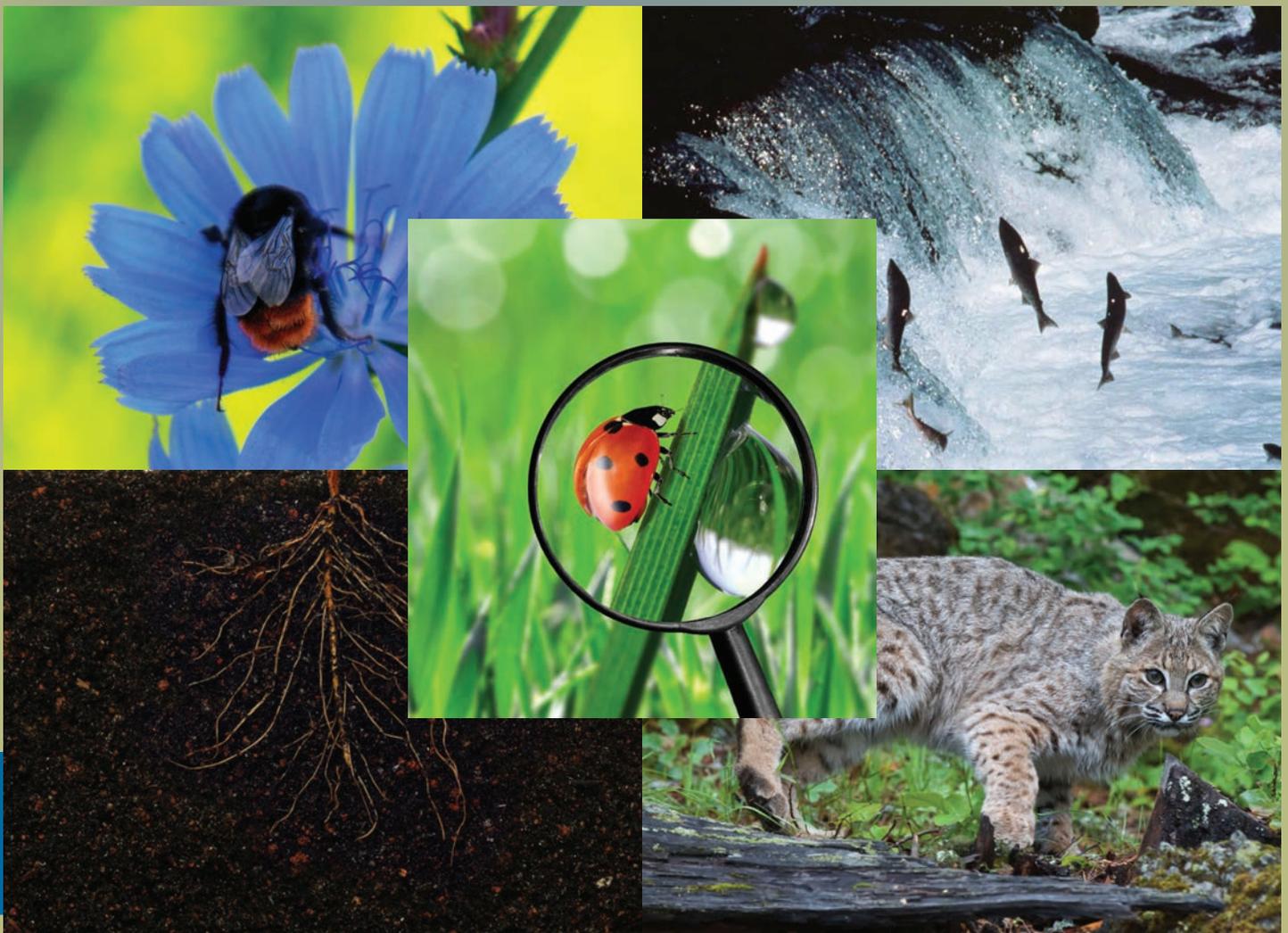




**Organic Means More**

# **Making Biodiversity a Priority: Updating Organic System Plans**



**October 2017**

## Acknowledgements and Support

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## Empowering Farmers, Connecting Consumers, Protecting Wild Nature

Since 2000, Wild Farm Alliance has educated farmers about on-farm biodiversity conservation, assisted them with its practical implementation, and initiated policies that support farm stewardship. Our mission is to promote a healthy, viable agriculture that protects and restores wild nature. Our work is centered on engaging and empowering those involved in the food and farming movement, including everyone from farmers to consumers.



Learn more and get involved:  
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## Moving in the Right Direction: Biodiversity Inspection Questions in Organic System Plans

Protecting biodiversity is a fundamental principle of the National Organic Program (NOP) standards. Organic farmers, certifiers, and inspectors have the responsibility to ensure that operations using the organic label do just that. Those who first wrote the standards in 2000 had the foresight to understand that biodiversity is the foundation of all living systems, including vibrant and productive farms. Organic means more than just no prohibited substances; it means food and farms that carry this label are actively working to create healthier ecosystems; it means organic food and farming embody more—supporting the beauty and functionality that biodiversity provides on the farm and to our plate.

As the leading organization working on this issue for 15 years, Wild Farm Alliance (WFA) can report that organic certifiers are moving in the right direction but, nearly two decades after the roll out of the NOP, most US certifiers are significantly deficient when it comes to addressing the intent and letter of the standards related to biodiversity. We are helping to change that. Our work is moving organic agriculture to a level that fully incorporates biodiversity through enforced regulations, and informed farmers, inspectors, certifiers, and consumers.



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## Why Do We Care About Organic System Plans?

### **Organic System Plans (OSPs) Are Critical Tools in the Enforcement and Compliance of the USDA NOP.**

OSPs ensure certifiers, inspectors, and farmers are implementing sound practices that represent the integrity of the organic label. While each certifier has a unique OSP they use to ensure compliance among their farmers, not all are operating on the same playing field. For example, some OSPs are addressing biodiversity throughout, some don't even use the words "biodiversity" or "wildlife." This puts farmers in a precarious position as they seek to make the organic claim in the marketplace and rely on their certifiers—who may or may not be inspecting for NOP biodiversity requirements—to assist them in ensuring compliance. In addition, OSPs are important as educational tools, providing farmers with information on various practices they can employ in their fields.

### **OSPs Need a Better Biodiversity Lens to Maintain the Integrity of the Organic Label.**

The integrity of the organic label is essential to further growth of the organic agriculture movement. With the 2016 NOP Natural Resources and Biodiversity Conservation Guidance now in place, it is time to ensure this directive is consistently guiding certifiers, inspectors, and farmers and doing the job it was intended to do - protect biodiversity. For rigorous compliance, OSP questionnaires from most certification organizations need to have a more comprehensive biodiversity lens.

# The Need for Verification and Enforcement of Natural Resources and Biodiversity Conservation in the Organic Standards.

The NOP is mandated with verification and enforcement of the standards, including natural resources protection and biodiversity conservation (see sidebars). NOP's certifier accreditation process that involves enforcement needs to also include staff training, and updates with internal documents and accreditation forms. Wild Farm Alliance wants to ensure the NOP makes this happen.

## Methodology

Wild Farm Alliance successfully engaged 42 of the 48 organic certifiers in the U.S. and obtained copies of some or all parts of their OSPs. We reviewed them in order to identify how adequately the OSPs are addressing biodiversity conservation, specifically in response to the NOP's Guidance mentioned above.

Using the model OSP developed in our 2016 Biodiversity Conservation: An Organic Farmers' and Certifiers' Guide, we evaluated how well certifiers' OSPs are conforming to the requirements. Our model OSP reflects on what is required by the NOP using a "biodiversity lens." We divided our OSP questions into five categories: 1) All Types of Operations, with general biodiversity questions for cropland, livestock, wild harvest and handling; and the rest with specific questions for: 2) Cropland; 3) Livestock; 4) Wild Harvest; and 5) Handling.

We are overall rating the different five categories of OSPs using these groupings of percentages:

Excellent: Addresses 75% or more of Model OSP questions

Good: Addresses 50-74% of Model OSP questions

Fair: Addresses 25-49% of Model OSP questions

Poor: Addresses less than 25% of Model OSP questions

To further make sense of the data, we assigned each question in our model OSP to one of the following six biodiversity categories, and then used the percentage groupings again. In this report, we focused on the first three categories below (the last three categories will be covered in a future report):

- **Soil Biology and Conservation - standards: 205.205 (a)(b)(c)(d), 205.203(a)**
- **Wildlife and Habitat Protection - standards: 205.200, 205.2, 205.202(c), 205.205, 205.206(a)(2),205.206(a)(b)(2)**
- **Water Quality and Conservation - standards: 205.203(c), 205.200, 205.2**
- Food Safety Measures - standards: 205.203(c)
- Diversification Practices - standards: 205.206(a)(3)
- Climate Adaptation and Resiliency - standards: 205.200, 205.2, 205.203(e)(3)

## What's in the NOP Regulation?

### §205.200 General Natural Resources and Biodiversity Conservation

Production practices implemented in accordance with this subpart must maintain or improve the natural resources of the operation, including soil and water quality.

§205.2 Definitions  
Natural Resources of the Operation - The physical, hydrological, and biological features of a production operation, including soil, water, wetlands, woodlands, and wildlife.

Organic Production - A production system that is managed in accordance with the Act and regulations to respond to site-specific conditions by integrating cultural, biological, and mechanical practices that foster cycling of resources, promote ecological balance, and conserve biodiversity.

## Biodiversity as Defined by the NOSB<sup>1</sup>

Biological diversity (biodiversity) includes variety in all forms of life, from bacteria and fungi to grasses, ferns, trees, insects and mammals. It encompasses the diversity found at all levels of organization, from genetic differences between individuals and populations (groups of related individuals) to the types of natural communities (groups of interacting species) found in a particular area. Biodiversity also includes the full range of natural processes upon which life depends, such as nutrient cycling, carbon and nitrogen fixation, predation, symbiosis and natural succession.

<sup>1</sup>The National Organic Standards Board (NOSB) is a federal advisory committee that advises the NOP.

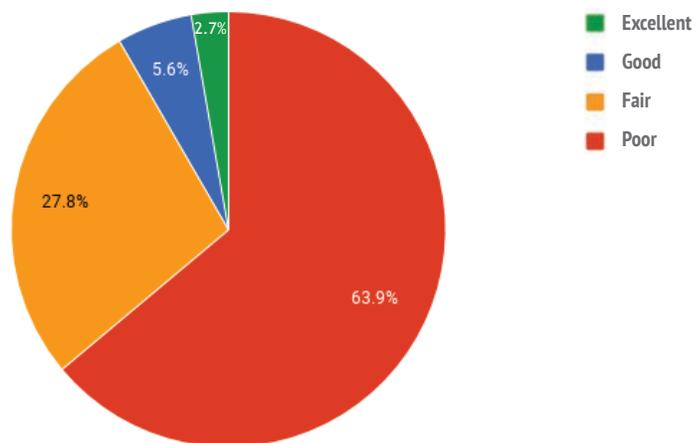
## Results

Putting a biodiversity lens on OSP questions is one of the best ways to ensure that biodiversity is incorporated into organic farm operations. We know that many certifiers are currently in the process of updating their OSPs and improving the biodiversity lens on their questions. Our analysis is based on the OSPs currently used in the spring of 2017. We anticipate that in our next analysis we will see an increase in OSP questions that assess biodiversity protection. For now, we looked at how well OSPs used a biodiversity lens in their questions and found the following results for both livestock and cropland OSPs:

### Livestock OSPs and Biodiversity

Livestock producers (organic ruminant and non-ruminant) complete both a livestock OSP and a crop OSP. We reviewed 36 of the 45 current livestock OSPs (in conjunction with the corresponding crop OSPs) used by US certifiers. We found that 8 percent of the livestock OSPs we reviewed addressed 50 percent or more of WFA's model OSP questions that protect and maintain biodiversity on the farm (excellent and good in the chart). The remaining 92 percent of livestock OSPs addressed less than half of WFA's model OSP biodiversity questions (Figure 1).

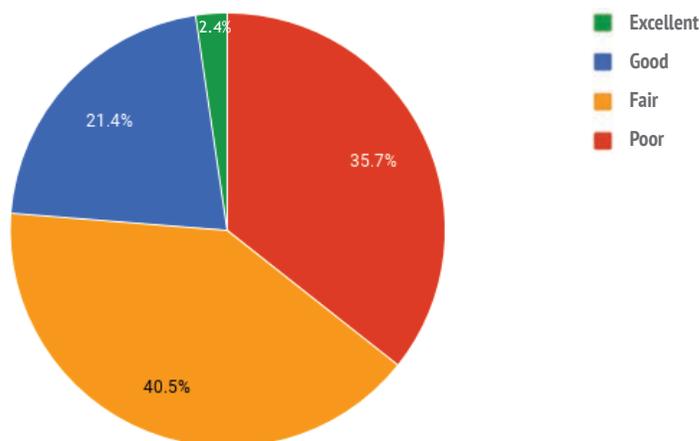
Figure 1 - How Livestock OSPs Address Biodiversity in General



### Cropland OSPs and Biodiversity

Cropland OSPs are completed by all organic crop producers. Our review for this section does not include wild crops such as maple syrup or mushrooms. We reviewed 42 of the 48 current cropland OSPs used by US certifiers. We found that 24 percent of the cropland OSPs we reviewed addressed 50 percent or more of WFA's model OSP questions that protect and maintain biodiversity on the farm. The remaining, 76 percent of cropland OSPs, addressed less than half of WFA's model OSP biodiversity questions (Figure 2).

Figure 2 - How Cropland OSPs Address Biodiversity in General



It should be mentioned here that WFA has a generous rating system because we recognize that “less is more” when it comes to farmers filling out OSP paperwork, and certifiers don't have to adopt all the questions—they just have to cover enough so that proper verification is achieved. The rating results below are more telling of how well certifiers are doing when we dive deeper beyond the number of questions to the content in them.

## How Integrity Stacks Up in the Biodiversity Categories: Soil Biology and Conservation, Wildlife and Habitat Protection, and Water Conservation and Quality

In order to find out where the cropland and livestock OSPs need to better address biodiversity, we looked specifically at how both livestock and cropland OSPs addressed biodiversity in questions directed at Soil Biology and Conservation, Wildlife and Habitat Protection and Water Conservation and Quality.

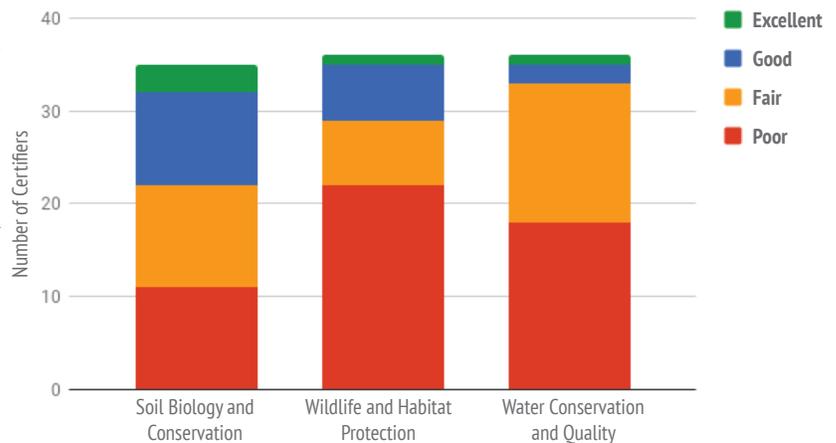
Over the last decade, there has been a concerted effort in all sectors of agriculture, including organic, to increase soil biodiversity. Because of this international movement, many best practices for soil biodiversity are becoming more widespread. We noticed in our review this trend to be true in both the livestock and cropland OSPs – many are using questions that address soil biodiversity and conservation (Figures 3 & 4).

Unfortunately, the other two biodiversity categories fell way behind. Even though many OSPs used a biodiversity lens in questions related to soil, their biodiversity lens was missing from questions about water and wildlife. We were surprised to see low ratings in the Water Conservation and Quality category related to Crops and Livestock (Figures 3 & 4). A poor showing in the Wildlife and Habitat Protection category was more expected because the definition of natural resources has to be looked up in the regulation to see that wildlife are included. Since it had been unclear to many certifiers if they actually had to address “wildlife,” the NOP clarified that they require more than soil and water quality verification (see box). These results indicate that a larger effort (similar to the one to increase soil biodiversity) is needed to better protect water and wildlife in agriculture. This is an important part of WFA’s work and mission.

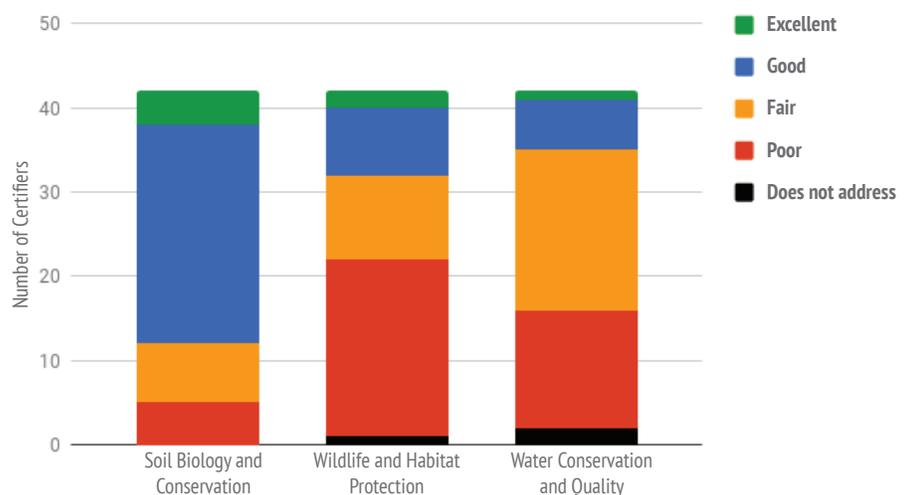
### Examples of Biodiversity Questions

The questions on the following pages are examples of how OSPs can address biodiversity in the three categories we looked at. Questions like these, while not comprehensive in themselves, should be part of a suite of inquiries that help certifiers and farmers make biodiversity a priority in organic operations as well as ensure organic farms meet NOP standards.

**Figure 3 - How Livestock OSPs Address Biodiversity in Three Categories**



**Figure 4 - How Cropland OSPs Address Biodiversity in Three Categories**



### More Than Just Maintaining Soil and Water Quality

“Certified operations are required to implement measures that support natural resource conservation and biodiversity in addition to maintaining soil or water quality.” –from NOP Response to Comments 5020-1

## Examples of soil biology and conservation questions that use a biodiversity lens:

- Crop rotation is required by the NOP..in both annual and perennial organic cropping systems.

Describe the methods use to promote a diversity of plants (eg. alley cropping, intercropping, hedgerows or other conservation methods)

*(OneCert Crop OSP)*

- How will you manage soil health?

- Animal manure
- Green manure
- Incorporate crop/pruning residues
- Compost
- Soil amendments
- Soil inoculants
- Mulching
- Compost Tea
- Annual crop rotation
- Cover crops
- Fallow rotations
- Rock minerals
- Foliar fertilizers
- Other (please specify):

*(Washington Dept. of Ag. Crop OSP)*

**organic means more  
than prohibited substances –  
it means cycling of resources**

- What are you doing to improve your pasture or rangeland?

- Plant native pasture
- Prevent overgrazing
- Reseed trampled or eroded areas
- Active grazing management system
- Prescribed burning

*(A Bee Organic Crop OSP)*

## Examples of wildlife and habitat protection questions that use a biodiversity lens:

- **Attach a map.**

Identify the distinct location, size, boundaries and buffers of this parcel. Include relevant information (e.g. landmarks, adjacent land uses, slope, prevailing wind, roads, biodiversity features & problem areas, etc.) on the map.

*(NOP Streamlined Crop OSP)*

# organic means more than input substitution – it means ecological balance

- **How are you managing habitat for pollinators, natural enemy insects and other wildlife throughout the production season?**

- Hedgerows
- Windbreaks
- Raptor perches or trees at field edge
- Bird or bat boxes
- Ensure a clean water source
- Plant flowers interspersed with crops
- Implement measures to support a variety of bee species
- Allow non-invasive plants in non-cropped, fallow, and border areas
- Provide extended food supply

*(CCOF Natural Resources OSP)*

- **Check non-lethal predator control practices used:**

- Use guard animals
- Schedule grazing when predation pressure is low
- Herd and/or make frequent and unpredictable appearances
- Graze small animals with large ones
- Breed livestock for protective instincts
- Use predator lights
- House livestock overnight in protected areas
- Conserve diverse landscapes supporting natural prey for predators

- Document circumstances of livestock death

*(Montana Dept. of Ag. Mammalian Livestock OSP)*

A triple-wide flowering pollinator and natural enemy insect hedgerow lies between orchard and row crops at Live Earth Farm.

## Examples of water conservation and quality questions that use a biodiversity lens:

- How do you manage water for the needs of crops, livestock, native species and riparian ecosystems?

- Plant regionally appropriate crops
- Conserve water
- Manage water for priority species
- Retain/restore vegetated riparian buffers/wetlands
- Protect/improve natural hydrology/ecological function of riparian areas

*(Idaho Dept. of Ag. Crop OSP)*

- What practices are used to protect water quality?

- Fencing livestock from waterways
- Minimize irrigation runoff
- Minimize ponding by laser leveling/land forming
- Minimize runoff from compost/manure piles.
- Drip irrigation

*(Quality Assurance International Crop OSP)*

**organic means more  
than even protecting soil and water quality –  
it means biodiversity conservation**

- How are these practices monitored, implemented and maintained?

- Reseeding areas
- Visual observations (documented)
- Activity logs
- Species counts
- Grazing rotations
- Conservation maps
- Limits on livestock access to waterways
- Pest monitoring water
- Soil testing

*(NOFA-NY)*

Rotational grazed cattle are fenced out of a creek that was augmented with native and edible plants at Wintergreen Farm.

## Recommendations

Biodiversity protection and the integrity of the National Organic Program cannot be overlooked for another 18 years. Since the NOP published the Natural Resources and Biodiversity Conservation Guidance, certifiers of organic agriculture need to take action to ensure that OSPs are updated to better reflect the intention of protecting and maintaining biodiversity. Based on our analysis and review of the majority of organic system plans used to certify organic farmers in the U.S., we have several recommendations:

**The NOP needs to better enforce the improvement and implementation of OSPs to ensure they are truly protective of biodiversity.**

The NOP is mandated with ensuring certifiers and ultimately farmers are following the organic standards. WFA will continue to provide input to the NOP and USDA on how this oversight can be improved to ensure certifiers are adequately addressing this issue on the OSPs.

**Biodiversity is defined by the National Organic Standards Board (NOSB) and footnoted as such in NOP's Natural Resources and Biodiversity Conservation Guidance, but the definition needs to be incorporated into the regulation.**

WFA is working to ensure the organic standards language is fully reflective of biodiversity protection.

**Farmers, certifiers, inspectors, and other agriculture and conservation professionals need more education and resources on how to correctly implement practices to protect biodiversity and effectively meet the organic standards.**

WFA is outreaching to these audiences on specific practices that protect biodiversity.

**Certifiers need to update their OSPs to improve our organic farming practices.**

All OSPs need to include a biodiversity lens on questions about water and wildlife. Not only that, they also need to be updated to include more questions about practices that integrate resiliency, food safety, and diversification – all are emerging topics that significantly affect our agricultural systems. WFA is reaching out and working with certifiers to update OSPs to reflect these emerging topics and prepare their farmers to face future challenges.

**WFA can't do this work without you.**

Please visit [www.WildFarmAlliance.org/join\\_our\\_mailing\\_list](http://www.WildFarmAlliance.org/join_our_mailing_list) to learn how you can help to make biodiversity a priority on organic farms.



Inspecting for natural resources and biodiversity conservation on a California organic farm.