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## Best Practices for Assessment of Natural Resources and Biological Diversity 4.2018

### **Summary**

7 CFR §205.200 requires operations to “maintain or improve the natural resources of the operation, including soil and water quality. Natural resources are defined in §205.2 as “physical, hydrological, and biological features of a production operation, including soil, water, wetlands, woodlands, and wildlife.” The definition of organic production includes conserving biodiversity. The Preamble to the regulations state “The use of ‘conserve’ establishes that the producer must initiate practices to support biodiversity and avoid, to the extent practicable, any activities that would diminish it.” In January of 2016, the National Organic Program published NOP 5020 Guidance on Natural Resources and Biodiversity Conservation. This guidance provides examples of ways certified organic operations can comply with §205.200 and describes the role of inspectors and certifiers in verifying compliance. However, certifiers have noted continued difficulty assessing compliance in a manner that is sound and sensible as well as consistent across certification agencies.

An ACA Working Group was convened to develop Best Practices for assessment of producer compliance with §205.200 and additional standards that relate to natural resources and biodiversity conservation. The group worked to develop suggestions for questions to include in Crop and Livestock Organic System Plans (OSPs) and related Inspection Reports. Answers to these questions should guide an informed and consistent assessment of on-farm efforts to maintain or improve natural resources and conserve biodiversity. The working group also addressed client communication and training of relevant personnel.

### **General Best Practices**

OSPs should address actions to improve or maintain natural resources and biological diversity with regard to soil, water, woodlands and wetlands, and wildlife and biodiversity (NOP §205.2, §205.200). It is acknowledged that some elements of compliance are already described in related sections of the OSP. However, OSPs should have a section dedicated to Natural Resources and Biological Diversity that contains any applicable questions that are not addressed adequately in other contexts.

Additionally, certifiers can request producer maps that highlight biodiversity features as well as conservation problems, such as areas prone to erosion. While it may be difficult to get this information from all producers, maps can be very helpful. Maps, which can be hand-drawn,

should point out field edge biodiversity such as hedgerows and riparian areas, natural areas such as wetlands and woodlands, and high conservation value areas such as habitat for rare species and rare ecosystems.<sup>1</sup> If there are areas that are important for restoring groundwater or protecting against fire, or that offer other ecosystem benefits such as those that support pollinators and natural enemies, these should also be described in the OSP.

Producers should be asked whether they are working with a conservation agency (such as USDA Natural Resources Conservation Service) and what plans they are implementing. They should be asked to describe their monitoring plan. Examples of monitoring methods could include photographs, soil and water analyses, or surveys of animals and insects.

When considering OSP revisions that will facilitate assessment of compliance related to natural resources and biodiversity, certifiers should consider resources such as the NOP's streamlined OSP and Wild Farm Alliance's Biodiversity Conservation: An Organic Farmer's and Certifier's Guide (see full list below). It is also noted that NRCs and other conservation offices often prioritize natural resource concerns for states and regions. These priorities could be useful for certifiers as they consider revisions to forms or processes, though this may be more complicated or less applicable for certifiers who certify across state lines or geographical regions.

The following lists a number of suggestions for topic-specific improvements that can be made to many certifier Organic System Plans.

### **Crop Organic System Plans**

#### **1. Soils:**

Existing OSPs typically cover soil erosion issues fairly well, but certifiers should consider the topic of soil cover. Keeping the soil covered prevents erosion, protects water quality and supports organisms like predaceous ground beetles, damsel bugs and snakeflies. If soil cover is not adequately addressed elsewhere in the OSP, questions should be added (§205.200, §205.203, §205.205).

Additionally, sections on crop rotation should include questions about incorporating biodiversity into perennial cropping systems (§205.205 and §205.2). The NOP's Streamlined OSP, for example, includes the following language: "Maintain filter strips or grassed waterways, hedgerows or windbreaks to minimize erosion." It also uses the following wording: "Maximize soil cover; reduce time and land area when soil is exposed to wind or water erosion."

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<sup>1</sup>The Natureserve webpages provide tools for identifying at-risk ecosystems (<http://explorer.natureserve.org/servlet/NatureServe>) and (<http://explorer.natureserve.org/granks.htm>) and tracking rare species (<http://explorer.natureserve.org/>).

Producers should be asked how practices foster soil life and biological diversity (§205.200, §205.203 and §205.205). Soil micro- and macro-organisms increase when soil organic matter is built through the use of cover crops, compost, manure, and crop rotations.

## **2. Water**

OSPs should include questions about water conservation in general and, more specifically, monitoring for irrigation efficiency by keeping track of soil moisture, water use and irrigation leaks. In developing or assessing OSP questions related to water conservation, certifiers should consider that producers aren't simply managing water for production, but for many needs including: crops, livestock, native species, and riparian ecosystems.

If maintenance of water quality (runoff) is not addressed in another section of the OSP (§205.203, §205.239), it should be addressed in the section on natural resources and biodiversity. Ensure that irrigation ditches and canals are also addressed as they may eventually flow into streams or other bodies of water. Questions should ask about practices that reduce sediments, fertilizers and manures in runoff. Livestock grazing can be an important soil and water management tool.

## **3. Woodlands, Wetlands, Wildlife, and Biodiversity**

Locations of woodlands and wetlands should be identified on maps, whether they are a part of the certified organic operation or on adjoining land. Adjoining land may provide biodiversity benefits if it is managed by the certified operator.

The following points should be considered:

- Field boundary and buffer zones can support biodiversity. OSPs should gather information about this.
- OSPs should also include a question about control of invasive species since their presence typically leads to decreased biodiversity.
- Conservation and restoration of native plants should also be addressed.
- Crop diversity matters, especially when there is a diversity of blooming crops that support pollinators and beneficial insects. In-field diversity is especially important on leased land where producers may be unable to plant perennials.
- OSPs should ask about wildlife habitat. Consideration should be given to diversity of habitat structure and the presence of large blocks of habitat.
- OSPs should ask about protection of threatened and endangered species and habitat for natural enemies of common pests.
- The OSP should address habitat and wildlife support throughout the year, not just one season, and on all certified organic parcels, not just some.
- It is noted that some materials allowed for organic production are harmful to wild and honey bees. Xerces Society has a [list](#) of these.

- OSPs should ensure biodiversity is present in areas with large tracts of monocrops. Planting of beneficial insect habitat, flowering annuals, or rows of native prairie strips are examples of actions producers could take.

While some certifiers may significantly revise a number of OSP sections as they pertain to natural resources and biodiversity conservation, others may look for simple ways to address the most critical topics within a dedicated section of the paperwork. The checkboxes on the following page can be used or referenced when incorporating updates:

Sample OSP Checkboxes:

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Insectary plants  | <input type="checkbox"/> Wildlife-friendly fences   | <input type="checkbox"/> Native plants/wildlife  |
| <input type="checkbox"/> Blooming mixed crops  | <input type="checkbox"/> Riparian management  | <input type="checkbox"/> historically present  |
| <input type="checkbox"/> Allow spent crops to flower   | <input type="checkbox"/> Wetlands, woodlands, grasslands, shrublands                            | <input type="checkbox"/> Structurally diverse wildlife habitat (ex: trees, shrubs, gasses) |
| <input type="checkbox"/> Under sowing/inter-planting   | <input type="checkbox"/> Retaining natural vegetation in uncultivated areas                     | <input type="checkbox"/> Manage waterflow for aquatic species                              |
| <input type="checkbox"/> Hedgerows/tree lines  | <input type="checkbox"/> Standing deadwood, fallen trees  | <input type="checkbox"/> Use fish screens with pumps                                       |
| <input type="checkbox"/> Brush piles   | <input type="checkbox"/> Allow degraded areas to be recolonized by non-invasive plants/wildlife | <input type="checkbox"/> Ground- and tunnel-nesting sites for bees                         |
| <input type="checkbox"/> Replace weedy areas with native plants                                    | <input type="checkbox"/> Recognize priority species / habitat and create protection plans       | <input type="checkbox"/> Providing roosting, denning, nesting, foraging sites              |
| <input type="checkbox"/> Timing of field activities (ex: delayed mowing to avoid disturbing birds) |   | <input type="checkbox"/> Leave un-harvested crops for wildlife                             |
| <input type="checkbox"/> Wildlife corridors  |   | <input type="checkbox"/> Allow non-invasive plants in fencerows, ditches, understory       |
| <input type="checkbox"/> Maintain High Conservation Value Areas                                    |   | <input type="checkbox"/> Other   |
| <input type="checkbox"/> Control invasive species  |   |  |

These checkboxes can be used to enable a description of conservation methods with minimal wording.

### **Livestock Organic System Plans**

Livestock OSPs should give consideration to the following:

- Improving pastures and rangelands, including frequency and timing of grazing
- Employing management practices that protect and help sustain wildlife
- Employing predator friendly management practices<sup>2</sup>
- Protecting natural wetlands, riparian areas, and other sensitive habitats §205.240(c)(8)
- Using native trees and shrubs for shade
- Minimizing occurrence and spread of disease in housing, pastures, and the watershed as also discussed in §205.240(b).
- Preventing runoff from yards, pads, feedlots, and lanes as discussed in §205.239(a)(5) and §205.240(b).
- Diversifying livestock breeds

### **Maple Organic System Plans**

OSPs or OSP addenda for production of maple sap should address the following:

- What is the overall species composition?
- How are native plants conserved?
- What wildlife habitat is provided (live trees with cavities, for example)?
- How are invasive species dealt with?
- What rare, threatened, or endangered species are present, and what steps are taken to protect these?

### **Mushroom Organic System Plans**

Mushroom OSPs or OSP addenda should address the following:

- A description of the land where logs are harvested
- Biodiversity conservation of woods where logs were sourced
- Are logs harvested in a way that minimizes disruption of rare species?
- How are invasive species dealt with?
- How are spent substrate and/or logs disposed of?

### **Greenhouse Organic System Plans**

Greenhouse OSPs or OSP addenda should address:

- If land outside the greenhouse is certified, what habitat exists around the outside it?
- Are steps taken to increase biodiversity inside the greenhouse?
- Do erosion concerns exist from water coming off the top of the greenhouse?
- Is there polluted runoff leaving the greenhouse?
- How are invasive species dealt with?

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<sup>2</sup> Various practices include: a) using guard animals such as llamas, donkeys or specific breeds of dogs to protect livestock, b) herding and/or frequent and unpredictable appearances are made by operator, c) small animals are grazed with large ones, d) vulnerable animals are housed overnight in protected areas, e) electric fencing is used; f) pasture is only used when predation pressure is low, g) livestock is bred for protective instincts, h) predator lights are used, i) diverse landscapes that support natural prey for predators are conserved and j) circumstances of livestock death are documented and evaluated as to predator role.

### **Wild Crop Organic System Plans**

The following are recommended, as described in the Wild Harvest Area Biodiversity section (page 73) of Wild Farm Alliance’s Biodiversity Guide. The suggested OSP question is “How do you maintain or improve the sustainability of the harvested species. Suggested checkbox answers include:

- Harvest from stable populations
- Minimize disruption of priority species/sensitive habitats
- Allow re-establishment
- Protect water quality
- Prevent erosion
- Avoid introduction of invasive plants
- Notify responsible agencies/organizations of harvest
- Coordinate with others who harvest in the same area
- Monitor sustainability of wild crop
- Other

### **Handling Organic System Plans**

NOP 5020 instructs certifiers to “determine whether handling operations directly affect biodiversity and take action as appropriate (and as required).” Although the NOP explained that “such situations are atypical,” and did not include references to handling operations in NOP 5020, the ACA Working Group thought it would be difficult to make determinations about whether or not biodiversity is affected without asking a few basic questions. As such, the following should be considered:

- Pest control
- Erosion
- Waste management
- Air quality

### **Guidance on Client Communications:**

As certifiers modify their programs in response to NOP 5020, it is important to communicate with organic growers about changes in expectations. It is also important for certifiers to understand that the visible effects of conservation efforts may take time to recognize, and to support continuous improvement efforts.

Organic growers can be directed toward the following resources, which provide education on the subject of natural resources and biodiversity conservation:

- [Assistance for Certified Organic, USDA-NRCS](#)
- [Assistance for Transitioning to Organic, USDA-NRCS](#)
- [Biodiversity Continuum, Wild Farm Alliance](#)
- [An Organic Farmer’s and Certifiers’ Guide, Wild Farm Alliance](#)
- [Organic-Approved Pesticides: Minimizing Risks to Bees, Xerces Society](#)
- [Conservation Webinars](#) (USDA NRCS, select “organic agriculture” category)

Appendix A, “Conservation for Vermont Organic Farmers, USDA-NRCS,” and Appendix B, OneCert’s “FAQ – Natural Resources and Biodiversity Conservation” are examples of handouts that may be useful for client communication.

### **What Conservation Efforts are Considered Adequate?**

Assessing adequacy can be a challenge given the spectrum of maintaining or improving natural resources. While producers are only required to maintain, certifiers can support producers that are focused on continuous improvements. Certifiers should provide education and resources as described in [NOP Instruction 2614, Technical Assistance](#).

It may be helpful to consider site specific goals: What outcomes are desired? What is most important to the land and the ecology of the area? These questions can help inspectors and producers with dialogue on these topics and can inform conservation goals and areas of focus. The following is a list of conservation efforts that could be considered inadequate:

- Soil Biodiversity: no support of life in soil with compost, cover crops or annual rotations; no support of life on soil surface with vegetative cover
- Soil Conservation: excessive erosion of crop field (during crop growth and in off-season); undue erosion on field edges (especially in erosion-prone areas); erosion caused by overgrazing
- Water Quality: excessive runoff with sediment, fertilizer, compost or manure into adjacent water bodies; undue livestock feces on land; livestock leaving any feces in water
- Water Conservation: excessive/overuse of water
- Wildlife Health: careless killing of wildlife; intentional killing of wildlife without first using co-existence methods
- Wildlife Conservation: wildlife habitat isn’t present throughout the production season on every parcel, or adjacent land managed by the operator; if destruction/removal of wildlife habitat occurs there is no similar replacement/mitigation; in perennial systems no alley crop, intercrop, hedgerow, native grasses or other habitat present; livestock degrade upland and riparian habitat; invasive species invading natural areas reducing native wildlife food plants
- Documentation/Monitoring: inadequate records and monitoring of biodiversity conservation

### **Inspection Reports**

Ensure inspection reports clearly address natural resources and biodiversity topics and encourage inspectors to discuss these with producers. Certifiers may determine that Inspection Report revisions are necessary, depending on current content and how the Inspection Report interacts with the Organic System Plan, where conservation details should be thoroughly outlined. If the report is tied tightly to verification of the OSP details, it may be sufficient to simply rely on verification of the OSP.

For certifiers who are looking for more detailed Inspection Report question sets, refer to Wild Farm Alliance's [Biodiversity Continuum](#), and [Model Organic Inspector Report Indicators and Red Flags for Natural Resources and Biological Diversity](#).

The following is a list of indicators inspectors may use to help them with their reports:

- Soil Biodiversity: soil crumbles easily, soil aggregation; wire probe passes through soil easily; vegetation, leaf litter and debris in untilled areas; number of soil animals (e.g., worms, predaceous beetles and ground-nesting bees)
- Soil Conservation: percent ground covered or bare in crop and non-crop areas; infiltration (no surface ponding or soil crusting)
- Water Quality: water clarity during irrigation or a storm; percent vegetative ground cover present to provide filtration (especially near waterway, if present)
- Water Conservation: wasting water (flood irrigation during a drought or where there is groundwater overdraft; sprinkler irrigation when it is very windy); dewatering naturally occurring water body
- Wildlife Health: number of wildlife species observed (pollinators/beneficial insects, amphibians, reptiles, birds, bats, non-predators (e.g., wild ungulates, prairie dogs, grassland birds) and predators (e.g., coyotes and bobcats)<sup>3</sup>; predator-friendly practices used (e.g., guard animals, electric fencing, predator lights and records are kept of livestock deaths); migratory paths of wildlife extending beyond the pastures; water from naturally occurring water source available for wildlife use, if feature is present; wildlife and livestock are not exposed to excess manure and pathogens
- Wildlife Conservation: flowering crop and non-crop plants; diversity and abundance of native plants (e.g., grasses, forbes, shrubs, and trees); habitat features (e.g., brush piles, decomposing logs and snags); natural ecosystems (e.g., wetlands, woodlands, riparian areas); pasture biomass and/or height and cover of forage, size of plant roots and plant debris; invasive plant/animal species abundance and diversity
- Monitoring/Documentation: for life in and on the soil; soil conservation; water quality; water conservation; wildlife health; and wildlife conservation

### **Enforcement and Follow-Up**

Depending on the nature of the conservation concern identified and its level of severity, a variety of tools for continuous improvement may be used by certifiers. While a Notice of Noncompliance might be appropriate in some cases, many issues might be resolved or improved upon without that direct action. It is essential to document the concern in the certification letter to the operator along with a clear indication of when and how the certifier will follow up on issue. Concerns that are not addressed as appropriate may escalate to Noncompliance over time.

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<sup>3</sup> Prevalence and diversity of wildlife will vary greatly by farm based on geography, climate, and other ecosystem factors.

### **Training of Personnel**

Certifiers should ensure that inspectors and reviewers have adequate training and resources on these topics. NOP Guidance 5020 states that “inspectors must be able to recognize and evaluate areas where: 1) natural resources and biodiversity are already conserved; 2) conservation projects are planned; and 3) improvement is needed.”

The following webinars and other resources may be useful for training purposes.

- [Natural Resources and Biodiversity Conservation in Organic Production Webinar](#)
- (with Jessica Walden, then with the NOP, and Ben Bowell of NRCS and Oregon Tilth)
- [How to Implement and Verify Biodiversity Conservation Activities in Organic Agricultural Systems Webinar](#)
- (with John Quinn of Furman University and Jo Ann Baumgartner of Wild Farm Alliance)
- Inspector trainings offered by [International Organic Inspectors Association](#)
- Inspector, certification reviewer, and farmer training webinars offered at no cost by [Wild Farm Alliance](#).
- NRCS [National Organic Farming Handbook](#).

### **Additional Resources**

[NOP 5020 - Guidance: Natural Resources and Biodiversity Conservation](#)

[NOP 5020-1 - Response to Comments: Natural Resources and Biodiversity Conservation](#)

[NOP Final Streamlined Organic System Plan](#)



## Assistance with Natural Resources and Biodiversity Conservation

The USDA Natural Resources Conservation Service (NRCS) in Vermont can provide technical and financial assistance to certified organic or transitioning producers to help them meet USDA National Organic Program (NOP) requirements, including those related to natural resources and biodiversity.

Improving and maintaining natural resources and conserving biodiversity is required by the NOP and involves integrated management of soil, water, air, plants, and animals. The result is improved habitat for fish and wildlife and a healthy, productive farm.

Organic production is defined as a production system that is managed 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 National Organic Standards Board (NOSB):** 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.

**NRCS and the Northeast Organic Farming Association of Vermont (NOFA-VT) are working to provide assistance to organic and transitioning to organic farmers throughout Vermont.**

TURN OVER TO LEARN MORE...



## NRCS Can Help...



We provide free conservation technical assistance to farmers for planning and management that address opportunities, concerns, and problems related to the use of natural resources. This includes helping organic producers implement conservation practices that increase biodiversity.

For all programs, producers must control or own the land and be in compliance with highly erodible land and wetland conservation requirements. Learn more at [www.nrcs.usda.gov/farmland](http://www.nrcs.usda.gov/farmland).

## ENVIRONMENTAL QUALITY INCENTIVES PROGRAM

EQIP provides financial and technical assistance to agricultural producers to help plan and implement conservation practices that address natural resource concerns and for opportunities to improve soil, water, plant, animal, air, and related natural resources on agricultural land. Payments are made to eligible participants after conservation practices and activities identified in an EQIP plan are implemented.

### The NRCS conservation planning process can assist organic producers with natural resource and biodiversity improvements including...

- ◆ **Soil** health and productivity through cover crops, crop rotation, reduced tillage, prescribed grazing, forage planting, etc.
- ◆ **Water** quality through waste management systems, nutrient management, pest management, animal trails, buffers, etc.
- ◆ **Wetlands** restoration provides habitat and travel corridors while protecting water quality with tree/shrub planting, fencing, stream crossings, wetland restoration, etc.
- ◆ **Woodlands** enhancement through an NRCS forest stewardship plan as well as forest stand improvement, crop tree release, early successional habitat, and promoting important habitat features.
- ◆ **Wildlife** habitat through field borders, hedgerow planting, aquatic organism passage, targeted management for sensitive species or natural communities, etc.



## GET STARTED

To learn more about opportunities for technical and financial assistance, organic farmers in Vermont can contact their local NRCS office—

<http://bit.ly/VTNRCSContacts> or go to [www.nrcs.usda.gov/organic](http://www.nrcs.usda.gov/organic)

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To learn more about organic certification, visit the Vermont Organic Farmers (VOF) website at [nofavt.org/vof](http://nofavt.org/vof) or call (802) 434-3821.



@NOFAVT  
@VermontNRCS



### Why should I care about Biodiversity and Resource Conservation?

Farms that support diversity of crops and non-crop species usually experience fewer serious pest problems, more pollination and pest control, more stable production, and more profit than those without diversity.

- + Conservation maintains the quality of the land for future generations.
- +Productive soil and ecosystems improve crop yields.
- +Robust, biologically active farms need fewer expensive inputs.
- +Genetically diverse and locally adapted seeds better withstand drought and harsh conditions.
- +Erosion reduction means better quality soil and water.
- +It's a requirement for all certified organic operations!

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

### What does the NOP require?

The NOP requires all organic operations to maintain or improve the natural resources of the operation, including practices that encourage biodiversity.

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

NOP Guidance 5020 Natural Resources and Biodiversity Conservation

### What are natural resources and how can I maintain or improve them?

§ 205.2 Natural resources of the operation: The physical, hydrological, and biological features of a production operation, including soil, water, wetlands, woodlands, and wildlife.

#### Soil

(type or classification, slope, texture, structure, organic matter content)

- +Build soil organic matter to benefit soil organisms; increase water and nutrient holding capacity and resilience under drought/changing climatic conditions
- +Rotate crops
- +Plant cover crops or green manures
- +Apply compost
- +Create physical features to slow water / air movement to retain soil particles
- +Maintain filter strips or grass waterways, hedgerows or windbreaks to minimize erosion
- +Maximize soil cover, reduce time and land area when soil is exposed to wind or water erosion
- +Time tillage operations for appropriate soil moisture to prevent compaction, improve tilth
- +Carry out farm operations under appropriate weather conditions to prevent water/ wind erosion
- +Use nutrient budgets that consider crop needs to calculate rates or organic fertilizers to be applied
- +Manage nutrient applications to minimize losses



### **Water**

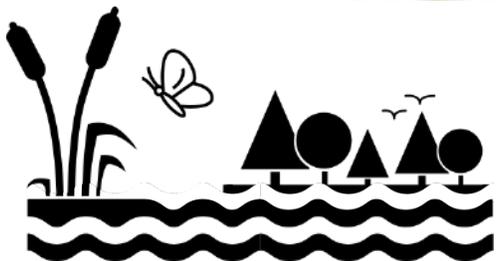
(groundwater, surface water, irrigation and wash water sources)

- +Plant crops and varieties appropriate to the climate and region
- +Manage cropland, field and farm borders, wetlands to increase water infiltration and reduce runoff
- +Maintain or improve watershed and wildlife habitat (woodlands, wetlands, and riparian areas)
- +Time and calculate fertilizer applications to meet crop needs; prevent nutrient loss or contamination
- +Utilize wetlands to manage wastewater and improve water quality
- +Avoid over drafting water sources, balance use with rates of replenishment, facilitate recharge
- +Maintain or improve irrigation efficiency
- +Monitor water systems regularly and repair leaks promptly

### **Woodlands and Wetlands**

(forest, grassland, scrub, watershed, riparian areas, creeks, streams, and water bodies)

- +Conserve/restore/ create/ improve habitat for native species, including predators or crop pests
- +Manage for biodiversity and habitat in non-crop areas, including field borders, windbreaks, fence lines, roadsides, equipment yards, out-buildings, post-harvest handling areas, and processing facilities



### **Wildlife/Biodiversity**

(common, threatened, endangered or invasive species and implications for predator/prey relationships)

- +Plant a diversity of crops
- +Plant different genetic strains of the same crop
- +Plant or manage for diversity in cover crops, green manures or pastures
- +Plant or manage for diversity of species and types of non-crop plants on the farm
- +Maintain or improve habitat for wildlife, beneficial organisms and natural enemies of pests
- +Minimize the use of pesticides, especially broad-spectrum materials that impact nontarget species.

### ***How do I know my efforts to conserve natural resources are working?***

You can evaluate how your efforts are working through monitoring. There are several methods and tools available to accomplish this, such as:

- +Working with a conservation specialist or program such as the NRCS, Wild Farm Alliance or the Xerces Society
- +Use Wild Farm Alliance Biodiversity Continuum Chart
- +Healthy Farm Index (web calculator)
- +Farm log or journal
- +Mapping technology
- +Photo monitoring (before and after)
- +Water and soil quality analysis
- +Count species abundance (number of individuals), richness (number of species) and evenness (how many of each species are spread throughout the farm)

### ***Where can I go to learn more?***

- + Local NRCS office or online [www.nrcs.usda.gov](http://www.nrcs.usda.gov)
- + Wild Farm Alliance [www.wildfarmalliance.org](http://www.wildfarmalliance.org)
- + Xerces Society [www.xerces.org](http://www.xerces.org)
- + USDA Webinars [www.conservationwebinars.net](http://www.conservationwebinars.net)
- + Habitat Network [www.content.yardmap.org](http://www.content.yardmap.org)
- + Contact OneCert with questions