

### 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**

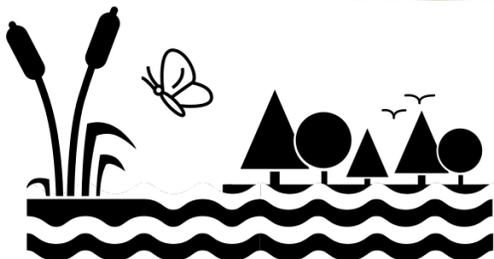
(groundwater, surface water, irrigation and wash water sources)

- +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