



Farmland Biodiversity

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How do I improve biodiversity on my farm?

1. First, know what is on your property
2. Create a farm plan
3. Inventory species (plants, animals, insects)
4. Retain wild areas, wildlife corridors
5. Remove invasive weeds, animals, etc.
6. Provide beneficial insect, animal habitat
7. Time your farming practices

Creating a Farm Plan

- **Plan your farm to have biodiversity**
- Know the % of farmland versus wild land
- Protect your soil and water resources
- What plant, animal species are present
- What species can be restored
- Where are the invasive species on farm
- Have conservation goals, regional goals

Inventory Species and Soil Types

- Wild land, native plant species present
- Is wild land suitable for predator habitat
- What insect habitat exists
- Is soil healthy for soil biota
- Discover what your land needs and can support

Fight Invasive Plants and Animals

- Invaders don't provide more diversity, they crowd out natives
- When using hedgerows or unmowed fields be attentive to control invasive species
- Use cover crops and native plants to protect soils from invasive weeds

Cover Crop Used in Bed System



How Does a Cover Crop work?

Sun, wind, rain



C.C. Canopy protects



Leaves stems, decompose



Roots hold soil, capture nutrients, feed biota



Organic matter increases, soil health improves

Natives and Cover Crops for Beneficial Insects

Cover Crops

- Mustard
- Alyssum
- Buckwheat
- Daikon radish
- Crimson clover

Native Plants

- Yellow giant hyssop
- Yellow coneflower
- Cow parsnip
- Hairy beardtongue
- Blue lobelia
- Riddell's goldenrod

Farm Ideas for Greater Diversity

- Leave some areas of soil undisturbed
- Flowers on field periphery
- Bee blocks around farm
- Arrange spray schedules, mowing, tilling around critical times for beneficial insects, predator animals
- Try to keep some areas unmowed to shelter wildlife

More Diversity Ideas

- Mow traffic areas of vineyard early to keep wildlife out
- Keep bare soils cover cropped
- Use native grasses, shrubs, trees in riparian areas and in sediment catch areas
- Install barn owl, blue bird, bat houses
- Know rare species in your area
- Preserve woodlands and wetlands

Enhancing Soil Biota



Analyze Certification Programs

Lodi Rules- Chapter 1

- Ecosystem Mgt.
- Watershed mgt
- Environmental survey
- Woodlands
- Individual trees
- Vegetative habitat
- Enhance biodiversity
- Soil microbial health
- Vernal pools, swales
- Riparian habitat
- Moving water habitat
- Nesting boxes
- Livestock access

Analyze Certification Programs

LIVE Chapter 2

- Ecological infrastructures (ponds, trees, hedgerows, grasslands, wildflowers)
- Eco options to enhance biodiversity
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- Buffer zones between crops and sensitive wild areas

Which site has greater potential for biodiversity?



Alternate middles planted to brown mustard and Daikon radish (planted annually) and subterranean clovers (farmed non-till for three seasons.)