



United States Department of Agriculture



Greening the Landscape for Environmental and Economic Gains



Natural
Resources
Conservation
Service

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Natural Resources Conservation Service

- **U.S. Government's private lands conservation agency**
- **Non-regulatory**
- **Technical assistance – all scales**
- **Financial assistance**
- **Soils and other information**
- **Resource inventories and assessments**
- **Conservation easements**





Soil Health

“The continued capacity of soil to function as a vital living ecosystem that sustains plants, animals, and humans.”

-The Soil Health Institute



Soil Health Wellness Check

- Darker in color, crumbly, and porous.
- Full of the roots of healthy and strong plants.
- Home to worms and other microorganisms.



Soil Health – So What?



- **Better water infiltration**
- **More water storage**
- **Better nutrient retention**
- **Mitigates effects of extreme weather**





4 Cornerstones of Soil Health

- 1. Minimize Soil Disturbance**
- 2. Diversify Soil Biota with Plant Diversity**
- 3. Keep a Living Root Growing Year-Round**
- 4. Keep the Soil Covered as Much as Possible**





Soil Health and Economic Development

- **Advanced biofuels**
 - Wisely managed crop residues & cover crops
 - Dedicated energy crops strategically placed on the landscape
- **Ruminant livestock**
 - Value added opportunities
 - Livestock support products and services
 - Jobs
- **Landscape and water resource contributions to economic competitiveness**
 - Green landscape
 - Outdoor recreation
- **Increased economic activity**
 - Capacity building
 - Small business opportunities



Advanced Biofuels from Crop Residues



- **Residues readily available in some locations**
- **Handle with care**



Removing residue can have a negative affect on Soil Health – **HOWEVER** - by making wise management decisions it may be done sustainably.



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USDA – DuPont Agreements



- **Focus on soil health protection and quality assurance**
- **Framework agreement**
- **Localized agreements with operational details**



Agreement Actions to Protect Soil Health

- **Soil Health Inventories**
- **Soil Health Plans**
- **DuPont Quality Control Spot Checks**
- **DuPont-NRCS Quality Assurance**



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Ready to work with other partners.



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Advanced biofuels - Dedicated energy crops



- **Can provide multiple benefits**
- **Landscape and sub-field analysis**
 - Economic
 - Environmental services





Ruminant livestock

- Utilize forages
- Value-added opportunities
- Support business opportunities
- Opportunities for beginning farmers and ranchers



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Economic competitiveness – Which is more attractive?





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Economic activity and investments



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Any Questions?

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