Managing for soil health is one of the best ways farmers can increase crop productivity while improving the environment.

Results are often realized immediately and last well into the future. Following are four basic principles to improving the health of your soil.

1. Keep the soil covered as much as possible
2. Disturb the soil as little as possible
3. Keep plants growing throughout the year to feed the soil
4. Diversify as much as possible using crop rotation and cover crops

Use the checklist on the back of this page to determine if you’re using core Soil Health Management System farming practices. It is important to note that not all practices are applicable to all crops. Some operations will benefit from just one soil health practice while others may require additional practices for maximum benefit. These core practices form the basis of a Soil Health Management System that can help you optimize your inputs, protect against drought, and increase production.
Soil Health Management Systems Include:

<table>
<thead>
<tr>
<th>What is it?</th>
<th>What does it do?</th>
<th>How does it help?</th>
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</thead>
</table>
| **Conservation Crop Rotation** | • Increases nutrient cycling  
• Manages plant pests (weeds, insects, and diseases)  
• Reduces sheet, rill and wind erosion  
• Holds soil moisture  
• Adds diversity so soil microbes can thrive | • Improves nutrient use efficiency  
• Decreases use of pesticides  
• Improves water quality  
• Conserves water  
• Improves plant production |
| An un-harvested crop grown as part of planned rotation to provide conservation benefits to the soil. | | |
| **No Till** | • Improves water holding capacity of soil  
• Increases organic matter  
• Reduces soil erosion  
• Reduces energy use  
• Decreases compaction | • Improves water efficiency  
• Conserves water  
• Improves crop production  
• Improves water quality  
• Saves renewable resources  
• Improves air quality  
• Increases productivity |
| A way of growing crops without disturbing the soil through tillage. | | |
| **Mulch Tillage** | • Reduces soil erosion from wind and rain  
• Increases soil moisture for plants  
• Reduces energy use  
• Increases soil organic matter | | |
| Using tillage methods where the soil surface is disturbed but maintains a high level of crop residue on the surface. | | |
| **Mulching** | • Reduces erosion from wind and rain  
• Moderates soil temperatures  
• Increases soil organic matter  
• Controls weeds  
• Conserves soil moisture  
• Reduces dust | • Improves water quality  
• Improves plant productivity  
• Increases crop production  
• Reduces pesticide usage  
• Conserves water  
• Improves air quality  |
| Applying plant residues or other suitable materials to the soil surface to compensate for loss of residue due to excessive tillage. | | |
| **Nutrient Management** | • Increases plant nutrient uptake  
• Improves the physical, chemical and biological properties of the soil  
• Budgets, supplies, and conserves nutrients for plant production  
• Reduces odors and nitrogen emissions | • Improves water quality  
• Improves plant production  
• Improves air quality  |
| Managing soil nutrients to meet crop needs while minimizing the impact on the environment and the soil. | | |
| **Pest Management** | • Reduces pesticide risks to water quality  
• Reduces threat of chemicals entering the air  
• Decreases pesticide risk to pollinators and other beneficial organisms  
• Increases soil organic matter | • Improves water quality  
• Improves air quality  
• Increases plant pollination  
• Increases plant productivity  |
| Managing pests by following an ecological approach that promotes the growth of healthy plants with strong defenses, while increasing stress on pests and enhancing the habitat for beneficial organisms. | | |