

Approved Best Management Practices

Irrigation Water Management

1. **Irrigation Scheduling** – Determine soil moisture and crop water use to calculate irrigation water requirements. Apply water in accordance with the calculations.
2. **Measure Irrigation Water Usage** – Install flow-meters or use other approved method for calculating annual irrigation water applications.
3. **Install Surge Valves** – Utilize surge valves to improve uniformity of gravity irrigation water intake.
4. **Low Pressure Sprinkler System** – Install new or convert high pressure irrigation to low pressure system which reduces water loss as a result of wind and evaporation.
5. **System Conversion** – Convert from gravity to a more efficient sprinkler irrigation system.
6. **Automatic Irrigation System Shut-offs** – Install a device that shuts down the irrigation system when adequate rainfall occurs.
7. **Soil Moisture Sensors** – Technology that tells the producer the saturation level of the soil and when to irrigate.

Cropping Practices

1. **Conservation Tillage and Planting** – Utilize tillage and planting methods that maintain 30% or greater crop residue on fields.
2. **Cover Crop** – Plant cover crops to reduce soil erosion.
3. **Crop Rotation** – Utilize crops such as legumes, small grains and grasses that have a lower requirement for fertilizer and/or irrigation water.
4. **Idling Cropland** – Set aside cropland for one or more seasons to eliminate the need for irrigation and fertilizer.

Fertilizer Management

1. **Fertilizer Recommendations** – Calculate annual fertilizer needs using realistic yield goals and allowing credit for nutrients available in soil and water.
2. **Deep Soil Sampling** – Sample soils to a depth of 3-4 feet to determine available residual nitrogen. Allow credit for residual nitrogen when calculating fertilizer recommendations.
3. **Irrigation Water Sampling** – Sample and analyze irrigation water to determine available nitrogen. Allow credit for nitrogen available in irrigation water when calculating fertilizer requirements.
4. **Nitrogen Stabilizer** – Use nitrogen stabilizer to slow the breakdown of nitrogen.
5. **Timed Fertilizer Application** – Utilize practices such as chemigation, and side-dressing to apply fertilizer during the growing season.

Pesticide Management

1. **Pest Scouting** – Scout for crop related pests (insects, nematodes, diseases, fungi, weeds, etc.) on a regular basis. Apply pesticides only when threshold levels are reached.
2. **Low Threat Pesticides** – Utilize products with lower leaching potential and shorter breakdown records.
3. **Biological Control Methods** – Use biological control methods that reduce or eliminate the need for pesticides.
4. **Cultural Control Methods** – Utilize pest resistant strains of seed hybrids and practice crop rotation to minimize pests.