



What is a Resource Management System for cropland? A Resource Management System (RMS) is a combination of conservation practices that meets NRCS quality criteria for the identified resource concerns and achieves the decision-maker's objectives. NRCS quality criteria are minimum acceptable treatment levels identified to attain the goal of sustaining the soil, air, water, plant, and animal resources. Resource concerns are specific quality or quantity aspects of a resource that can be negatively impacted.

How does a Resource Management System benefit cropland? RMS benefits include:

- Economic risk is reduced.
- Land value is maintained or increased.
- Soil organic matter is maintained/improved.
- Water erosion is controlled.
- Wind erosion is controlled.
- Excess fertilizer application/cost is avoided.
- Ground water, lakes and streams have low risk of contamination by nutrients.
- Crop disease, insects, and weed problems are reduced.
- Environment and human health risks are reduced by proper handling and use of pesticides.
- Secondary use of cropland by wildlife provides recreational and income opportunities.
- Saline discharge or the risk of soil salinization is reduced.
- A documented RMS may qualify for increased USDA program benefits.

What conservation practices need to be applied to achieve a Resource Management System? The practices (and the specific practice criteria for each practice) needed on a field depends on the soil type and the producer's objectives. A typical cropland RMS includes the following conservation practices:

Conservation Crop Rotation – This practice identifies the types of crops to be grown and sequence chosen by the producer. The rotation must be capable of growing sufficient residue to control erosion and maintain soil organic matter. Most producers choose a rotation that helps minimize disease, insect, and weed problems. There is flexibility in the specific crops grown.

Residue Management - A residue management practice chosen to meet an RMS will maintain sufficient ground cover to control wind and water erosion alone or in combination with other conservation practices. There are four different residue management practices:

- Residue Management, No-till and Strip-till is the most effective residue management practice for erosion control and maintaining soil organic matter.
- Residue Management, Mulch-till includes minimum tillage.
- Residue Management, Seasonal typically includes intensive spring tillage or low-residue crops such as dry edible beans or potatoes.
- Residue Management, Ridge Till is a minimum till method that is preferred by some corn and soybean producers.

Nutrient Management – This practice includes periodic soil testing to determine application rates for reasonable crop yield goals. It also includes application techniques to minimize leaching and runoff losses.

Pest Management – This practice utilizes environmentally sensitive prevention, avoidance, monitoring and suppression strategies to manage weeds, insects, diseases, animals and other organisms (including invasive and non-invasive species), that directly or indirectly cause damage or annoyance.

An RMS may include other conservation practices such as field windbreaks, grassed waterway, strip cropping, herbaceous wind barriers, and salinity and sodic soil management. Irrigation Water Management is planned on irrigated fields.

Where do I find help to plan a cropland Resource Management System? Contact your local NRCS office for assistance.

Will I still meet a Resource Management System if I change my farming operation? Changes in farming operations are inevitable. NRCS technology likewise changes. Contact your local NRCS office if you are interested in determining how a change in your farming operation will impact your resource concerns or fit into conservation programs.

References

North Dakota Field Office Technical Guide Section III – Quality Criteria and Resource Management Systems

North Dakota Field Office Technical Guide Section IV – Conservation Practices

www.nrcs.usda.gov/technical/efotg