Conservation crop rotation to reduce the concentration of salts

Conservation Practice 328: Conservation Crop Rotation

APPLICABLE LAND USE: Crop (Annual & Mixed)

RESOURCE CONCERN: Soil

ENHANCEMENT LIFE SPAN: 1 Year

Enhancement Description

Implement a crop rotation to reduce the concentration of salts and other chemicals from saline seeps. The rotation should include at least 3 crops and/or cover crops grown in a sequence in the recharge areas of saline seeps that have rooting depths and water requirements adequate to fully utilize all available soil water. Do not use summer fallow. Use an approved water balance procedure to determine crop selection and sequence. Select crops with a tolerance to salinity levels that match the salinity of the discharge area. (See state lists)

Criteria

• Crops shall be grown in a planned sequence as outlined in plan. The crop rotation must include a minimum of three different crops. For purposes of these criteria a cover crop is considered a different crop.

• Where applicable, plan suitable crop substitutions when the planned crop cannot be planted due to weather, soil conditions, or other local situations.

• Select crops to be grown in the recharge area of saline seeps that have rooting depths and water requirements adequate to fully utilize all available soil water.
• Do not use summer fallow.

• Use an approved water balance procedure to determine crop selection and sequence.

• If excess subsoil moisture exists below the rooting depth of crops commonly grown in the recharge area, establish deep-rooted perennial crops for the number of years needed to dry the soil profile.

• Select crops with a tolerance to salinity levels that match the salinity of the discharge area. (See State list of salt tolerant crops with rooting depths and water requirements adequate to use all available soil water.)
**Documentation and Implementation Requirements**

**Participant will:**

- Prior to implementation, complete the following table and use an approved water balance procedure to determine crop selection and sequence.

**Planned Management Rotation (Do not use summer fallow):**

<table>
<thead>
<tr>
<th>Field</th>
<th>Planned Crops (in sequence)</th>
<th>Planting Date</th>
<th>Harvest or Termination Date</th>
<th>Crop Rooting Depth (inches)</th>
<th>Crop Water Requirements</th>
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- During implementation, notify NRCS of any planned changes in crops, crop rotation, or field operations to verify the planned system meets the enhancement criteria.

- After implementation, if changes to the rotation were made, complete the table above to document the applied crop rotation for the contract period and provide to NRCS.

**NRCS will:**

- As needed, provide technical assistance using an approved water balance procedure in selecting crop rotations or substitute crops that would meet the criteria of the enhancement.

- Prior to implementation, verify that the crop rotation includes at least three different crops in rotation.

- Prior to implementation, verify the crop rotation has a water balance to verify crops selected and sequence is adequate.

- During implementation, evaluate planned changes to verify the planned system meets the enhancement criteria.

- After implementation, if the applied crop rotation is different than the planned crop rotation, verify the implemented rotation meets the enhancement criteria.
NRCS Documentation Review:

I have reviewed all required participant documentation and have determined the participant has implemented the enhancement and met all criteria and requirements.

Participant Name ______________________________ Contract Number ________________

Total Amount Applied __________________________ Fiscal Year Completed __________

__________________________________________ __________________________
NRCS Technical Adequacy Signature Date