**alliance practice worksheet**

arkansas

conservation crop rotation (328)

*The conditions and specifications below are adapted from the Natural Resources Conservation Service. Producers who are installing these practices under the Alliance will use the conditions and implementation guides below but are exempt from NRCS verification and certification. Completing the Purposes and Practice Specifications on this document is sufficient to self-verify practice installation and completion.*

# Farm Info

|  |  |
| --- | --- |
| Producer Name |  |
| County (Farm Location) |  |
| FSA Farm Number |  |
| FSA Field Number(s) |  |
| FSA Tract Number(s) |  |
| Practice Status:*If a practice has not yet been implemented, select Planned**If a practice has been implemented, select Applied* | [ ]  Planned | [ ]  Applied |
| Planned Date of IMPLEMENTATION: | Date Practice was APPLIED: |

# PRACTICE: CONSERVATION CROP ROTATION (328)

**DEFINITION:**A planned sequence of crops grown on the same ground over a period of time (i.e. the rotation cycle). At least one annually planted crop is included in the rotation.

**MINIMUM REQUIREMENTS FOR CONSERVATION CROP ROTATION (328):**

[Arkansas | Field Office Technical Guide | NRCS - USDA](https://efotg.sc.egov.usda.gov/#/state/AR/documents/section=4&folder=-43)

**At a minimum, producers will provide a record of the following:**

* Field number and acres
* Purpose(s) of the crop rotation
* The crop types to be grown
* Tillage types to be grown
* Length of time each crop/crop type will be grown in the rotation
* Total length of rotation
* Suitable crop substitutions to address weather, soil conditions, market, or other situations that may prevent the planned crop from being planted

# GENERAL CRITERIA APPLICABLE TO ALL PURPOSES

* Crops shall be grown in a planned sequence as outlined in Plans and Specifications. The crop rotation shall include a minimum of three different crops. For purposes of these criteria a cover crop is considered a different crop.
* For the purposes of the Alliance to Advance Climate-Smart Agriculture project, the enrolled field must be planted to a “high residue” producing crop during the period of enrollment.
* Where applicable, plan suitable crop substitutions when the planned crop cannot be planted due to weather, soil conditions, or other local situations.

# Additional criteria to reduce sheet, till, and wind erosion

* Select crops, a tillage system, and cropping sequences that will produce sufficient and timely quantities of biomass or crop residue which, in conjunction with other practices in the management system, will reduce sheet, rill and wind erosion to the planned soil loss objective.
* Determine the amount of biomass or crop residue needed by using current approved erosion prediction technology.

# additional criteria to maintain or increase soil health and organic matter content

* Grow crops that will produce a positive trend in the Organic Matter (OM) subfactor value over the life of the rotation, as determined by the Soil Conditioning Index. Make appropriate adjustments for additions to or subtractions from biomass.

# additional criteria to reduce water quality degradation due to excess nutrients

* To recover excess nutrients from the soil profile, use crops with:
	+ Quick germination and root system formation
	+ A rooting depth sufficient to reach the nutrients not removed by the previous crop
	+ Nutrient requirements that readily utilize the excess nutrients
	+ Credit nutrients provided by legumes and manure/compost.

# additional criteria to improve soil moisture efficiency

* Select crops, varieties of crops, and the sequence of crops based on local climate patterns, soil conditions, irrigation water availability, and an approved water balance procedure.

# Additional Criteria to Reduce the Concentration of Salts and Other Chemicals from Saline Seeps

* 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 matches the salinity of the discharge area.

# Additional Criteria to Reduce plant pest pressures

* Design the crop sequence to suppress the pest(s) lifecycle of concern, which may include weeds, insects, and pathogens. Use land grant university or industry standards to determine a suitable crop sequence.

# Additional Criteria to Additional Criteria to Provide Feed and Forage for Domestic Livestock

* Select crops that balance the feed supply with livestock numbers. Determine the required amount of selected crops using an approved forage-livestock balance procedure.

# Current Management: crop rotation

Example: C-C-Sb, C-Sb, Hay x4-C-Sb

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Field | Acres | Planned Crops (In Sequence | Length of Each Crop in the Rotation (years) | Crop Type – Warm Grass, Cool Grass, Warm Broadleaf, Cool Broadleaf | Total Length of Rotation in Years |
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# Current Management: field operations

Field operations include herbicide, fertilizer, termination, harvest, etc.

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| --- | --- | --- | --- | --- |
| Field | Acres | Type of Tillage | Time of Tillage (month/year) | Crop |
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# Planned Management – Crop Rotation

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Field | Acres | Planned Crop | Substitute Crop | Additional Criteria |
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# Planned Management – Field Operations

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Field | Acres | Type of Tillage | Time of Tillage (month/year) | Crop |
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# Operation and Maintenance

* Rotations shall provide for acceptable substitute crops in case of crop failure or shift in planting intentions for weather related or economic reasons. Acceptable substitutes are crops having similar properties that will accomplish the purpose of the original crop.
* Evaluate the rotation and the crop sequence to determine if the planned system is meeting the planned purposes.

# Planned crop substitutions

|  |  |  |  |
| --- | --- | --- | --- |
| **Field(s)** | **Planned crop** | **Substitute crop** | **Additional criteria (e.g., may need a cover crop)** |
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\*RUSLE2 reports can be utilized and attached to practice worksheet in lieu of completing the above tables.

Soil conditioning index (SCI) value of implementation year: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |
| --- |
| *Notes:*Click or tap here to enter text. |

# Producer self-certification

By signing below, I certify that I have reviewed all required documentation and have implemented the practice and met all criteria and requirements as defined in the Natural Resources Conservation Service **INSERT PRACTICE AND (NRCS CODE)** standard and specifications for the identified acres or animal units.

Further, I agree that:

[ ]  I have not received a payment for this conservation practice on these fields and acres from another USDA Conservation Program or another USDA Partnership for Climate-Smart Commodities grant partner.

[ ]  I will retain all practice documentation to support this certification for up to 12 months following practice adoption and will provide this documentation to the Alliance if selected for a spot check. *(Up to 10% of enrolled Alliance participants will be randomly selected for spot checks).*

|  |  |
| --- | --- |
| ***Participant Name:*** |  |

|  |  |
| --- | --- |
| ***Participant Signature:*** |  |

|  |  |
| --- | --- |
| ***Date:*** |  |