Transforming Agriculture, Perennially

Date: February 22, 2022
To: Current and prospective Kernza® perennial grain growers, buyers, and stakeholders
From: Kernza®CAP Policy and Supply Chains & Economics Teams
Subject: Addition of perennial grain crop conservation rotation to conservation enhancement activity E3280

Introduction

In 2022, the NRCS Conservation Stewardship Program (CSP) has added a CSP FY2022 Conservation Enhancement to Practice 328, specifically **E328O Perennial Grain Crop Conservation Rotation** (here).

Background

From NRCS: *The Conservation Stewardship Program (CSP) is for producers who want to take their conservation efforts to the next level. Most CSP applicants have already been applying conservation practices to their land. Through CSP, producers have the opportunity to further improve their conservation efforts with conservation activities called "enhancements." Enhancements allow a producer to address additional levels of conservation beyond what the minimum conservation practice standard requires. CSP applicants work on-one-one with their NRCS conservation planner to select enhancements that best fit their management goals and that will address resource concerns on the enrolled operation.*

Through CSP, producers can choose from approximately 140 enhancements to address resource concerns on their operation. Conservation practice standards and quality criteria for resource concerns can be found in sections II and III of the Field Office Technical Guide.

It is the largest conservation program in the United States with 70 million acres of productive agricultural and forest land enrolled in CSP.

Description

Growers must establish a perennial grain crop as part of a rotation with two other crops. The crop rotation will reduce soil erosion (water and wind), improve soil health, improve soil moisture efficiency, and reduce plant pest pressures.

- Crops must be grown in a planned sequence with two other crops in rotation with the perennial grain crop. The perennial grain must be grown for two years after planting. **The rotation must be approved by NRCS prior to planting.**
- NRCS must confirm that the crop rotation produces a positive trend in the Organic Matter (OM) subfactor value, as determined by the Soil Conditioning Index (SCI) calculated using current NRCS wind and water erosion prediction technologies. **This must be done prior to planting.**
- Design the crop sequence to provide sufficient diversity in plant family and species as well as timing and type of field operations to suppress the pest(s) of concern, which

may include weeds, insects, and pathogens. **Use land grant university or industry standards to determine a suitable crop sequence.**
- Select crops, varieties of crops, and the sequences of crops based on local climate patterns, soil conditions and irrigation water availability. Plan for rotation substitutions for planting delays or crop failures.

Grower Requirements

- **Prior to implementation**, provide NRCS with the planned crop rotation including the perennial grain and tillage operation(s) used for each crop
- **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 tables in the enhancement document to show the applied Conservation Crop Rotation for the contract period and provide to NRCS.

NRCS Role

- As needed, provide technical assistance in selecting crop rotations or substitute crops that would meet the criteria of the enhancement.
- Prior to implementation, verify that the crop rotation includes a perennial grain crop in a minimum three-year crop rotation.
- Prior to implementation, verify the perennial grain crop.
- Prior to implementation, use the information provided from the participant to calculate the management Soil Conditioning Index (SCI) value using current NRCS wind and water erosion prediction
- technologies. Crop rotation must produce a positive trend in the Organic Matter (OM) subfactor value.
- During implementation, evaluate planned changes in crops, crop rotation, or field operations to verify the planned system meets the enhancement criteria.
- After implementation, if the applied crop rotation is different than the planned crop rotation, use the information provided from the participant to calculate SCI value to document that the applied rotation met the enhancement criteria.

Role of KernzaCAP, TLI, technical assistance team

Upon request we can interact with your NRCS office to provide them with technical assistance or resources to understand best practices where new perennial grain practices, including Kernza production are concerned. If you need assistance from your office, please contact the technical assistance team in your region.

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