United States Department of Agriculture

CONSERVATION ENHANCEMENT ACTIVITY

E328J

CONSERVATION STEWARDSHIP PROGRAM

Improved crop rotation to provide benefits to pollinators

Conservation Practice 328: Conservation Cropping System

APPLICABLE LAND USE: Crop (Annual & Mixed)

RESOURCE CONCERN: Animals

ENHANCEMENT LIFE SPAN: 1 year

Enhancement Description

Improve the existing crop rotation by adding pollinator friendly crops into the rotation. The crop rotation shall include a minimum of three different crops in a minimum five-year crop rotation. Each year, the pollinator friendly crop will be planted on a minimum of 5% of cropland acres contained within the agricultural operation. Use of insecticides is limited for the pollinator friendly crop.

Criteria

- Crops will be grown in a planned sequence over a five-year rotation. The crop rotation shall include a minimum of three different crops in a minimum five-year crop rotation.

- The crop rotation must include at least one pollinator friendly. For these criteria, a pollinator friendly cover crop is considered a different crop. A pollinator friendly crop is defined as a crop, planted for harvest or as a cover crop, which provides nectar for pollinators and other beneficial insects. Examples of pollinator friendly crops are canola, sunflowers, clovers, and borage. To meet the purpose and definition of a pollinator friendly crop, these "flowering" crops must be allowed to bloom prior to harvest or termination. **<REFER TO STATE SPECIFIC LIST OF POLLINATOR FRIENDLY CROPS>**

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- Each year the enhancement is planned, the pollinator friendly crop will be planted on a minimum of 5% of cropland acres contained within the agricultural operation. Plan/contract the actual acres planted to the pollinator friendly crop.
- Where applicable, plan suitable crop substitutions when the planned crop cannot be planted due to weather, soil conditions, or other local situations.
- Foliar systemic insecticides may not be applied to the pollinator friendly crop.
- Insecticides may not be applied during crop bloom period of the pollinator friendly crop.

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Documentation and Implementation Requirements

Participant will:

- ☐ Prior to implementation, provide NRCS with the current and planned crop rotation for all cropland acres on the operation. **<REFER TO STATE SPECIFIC LIST OF POLLINATOR FRIENDLY CROPS>**
- ☐ Prior to implementation, as needed, NRCS can provide technical assistance in selecting pollinator crops for the crop rotation or substitute species that would meet the criteria of the enhancement.
- ☐ Prior to implementation, provide maps for review by NRCS of the planned crop rotation, including areas which will include the pollinator friendly crops. Each year the enhancement is planned, at least 5% of the cropland acres on the operation must be planted to a pollinator friendly crop.

Current Management Rotation (complete table for each rotation)

Field	Current Crops (in sequence)	Planting Date	Harvest Date

Planned Management Rotation including Pollinator Friendly Crops (complete table for each rotation)

Field	Planned Crops (in sequence)	Planting Date	Harvest Date	Acres in rotation

☐ During implementation, maintain records of any insecticide applications to the pollinator friendly crop, including timing, material/product, application rate, and crop stage.

Field	Crop	Insecticide Applied	Application Date	Application Rate	Crop Stage

☐ During implementation, notify NRCS of any planned changes in crop rotation, insecticide applications, or management to verify the planned system meets the enhancement criteria.

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

☐ After implementation, provide insecticide application records to NRCS for review to verify implementation meets the enhancement criteria.

NRCS will:

☐ As needed, provide technical assistance in selecting pollinator crops for the crop rotation or substitute species that would meet the criteria of the enhancement.

☐ As needed, provide additional assistance to the participant as requested.

☐ Prior to implementation, verify the crop rotation meets the criteria of the enhancement. The rotation must include a minimum of three different crops in a five-year crop rotation and each year the enhancement is planned the pollinator friendly crop must be planted on a minimum of 5% of cropland acres contained within the operation. *Plan/contract the actual acres planted to the pollinator friendly crop.*

☐ During implementation, evaluate any planned changes in crop rotation, insecticide applications, or management to verify the new system meets the enhancement criteria.

- ☐ After implementation, if there were any changes to planned rotation or management evaluate the applied crop rotation using information provided from the participant to verify the applied rotation meets the enhancement criteria.
- ☐ After implementation, review insecticide application records to verify implementation 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

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North Dakota Pollinator Friendly Field Crops List

Buckwheat*

camelina

canola

lentil

lupine

mustard, tame

rapeseed

safflower

sunflower

winter canola

chickpea (Kabuli & Desi)

horse bean (fava)

field pea

North Dakota Sideboards:

The intent of the enhancement is not to replace one pollinator friendly crop with another pollinator friendly but to increase the total by 5% if switching crops. ie. If a producer has been growing 15% of their total acres to canola but is interested in trying a different pollinator friendly crop on some of their acres and would be willing to reduce their acres of corn to come up with 5% of their acres for the planned new pollinator friendly crop. They would be eligible to include the new pollinator friendly crop acres only.

Full season cover can be used with a final seeding date of June 10th for predominantly a cool season mix, June 20th final seeding date for a predominantly warm season mix and if you have a 50/50 warm/cool mix then the final seeding date of June 10th.

Also, that a minimum of 50% of the mix would have to be a pollinator friendly crop. The remainder of the mix it is encouraged to include species that attract beneficial insects based off of ND-CPA-340 Cover Crop Design Worksheet, table 1, however other species can also be included for other RC's such as weed suppression, etc.

Producers will ensure the seed used is not treated with insecticides.

The planned pollinator friendly crop specie(s) must be new to the planned crop rotation. NRCS will review and document the latest four years of the producer's FSA crop history data to verify the planned pollinator friendly crop is new to the planned crop rotation.

Only pay the acres where the new pollinator friendly crop will be planted each year.

* Buckwheat (Fagopyrum esculentum) can cause certain allergenic reactions similar to peanut allergies. Buckwheat has a high percent of hard seed and volunteers easily in no-till systems and can become weedy in subsequent crops. To minimize the potential of buckwheat contamination in cereal crops (wheat, winter wheat, barley, oats), buckwheat is not recommended in cover crop and pollinator mixes planned in crop rotations with cereal crops or in areas adjacent (within 30 feet) of cereal crop fields.