

## **CONSERVATION ENHANCEMENT ACTIVITY**

E328J



# 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.

### <u>Criteria</u>

- 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>

| E328J - Improved crop rotation to provide | August 2019 | Page   1 |
|---|-------------|----------|
| benefits to pollinators                   |             |          |



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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.

| E328J - Improved crop rotation to provide | August 2019 | Page   2 |
|---|-------------|----------|
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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) | Planti <mark>ng Date</mark> | Harvest Date | Acres in rotation |
|-------|-----------------------------|-----------------------------|--------------|-------------------|
|       |                             |                             |              |                   |
|       |                             |                             |              |                   |
|       |                             |                             |              |                   |
|       |                             |                             |              |                   |
|       |                             |                             |              |                   |

| E328J - Improved crop rotation to provide | August 2019 | Page   3 |
|---|-------------|----------|
| benefits to pollinators                   |             |          |



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



| Field | Сгор | Insecticide<br>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.

| E328J - Improved crop rotation to provide | August 2019 | Page   4 |
|---|-------------|----------|
| benefits to pollinators                   |             |          |



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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                  |
|                                   |                       |

| E328J - Improved crop rotation to provide | August 2019 | Page   5 |
|---|-------------|----------|
| benefits to pollinators                   |             |          |

## E328J - Improved crop rotation to provide benefits to pollinators

### 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:

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 annual crops raised for grain/oilseed are eligible.

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.