United States Department of Agriculture

CONSERVATION ENHANCEMENT ACTIVITY

E334A

CONSERVATION STEWARDSHIP PROGRAM

Controlled traffic farming to reduce compaction

Conservation Practice 334: Controlled Traffic Farming

APPLICABLE LAND USE: Crop (Annual & Mixed); Crop (Perennial)

RESOURCE CONCERN: Soil

ENHANCEMENT LIFE SPAN: 5 Year

Enhancement Description

Establish a controlled traffic system where no more than 25% of the surface is tracked with heavy axel loads to minimize soil compaction. For row crops (e.g. corn in 30-inch rows) no tire should run on a row except for flotation tires on combines and/or fertilizer and lime spreading trucks. If wide flotation tires are used, they must be big enough that the inflation pressure will be below 18 psi to minimize compaction on trafficked rows.

Criteria

- Ensure that controlled traffic lanes are designed and used in a manner that avoids concentrated flow that may result in gully erosion.
- Limit wheel/track traffic to no more than 25 percent of the soil surface. The same tracks must be used for all high load traffic continually. High wheel load traffic is defined here as any tire or track that bears a load higher than 6,000 pounds at 30 psi or 6 tons per axle.
- For row crops (e.g. corn in 30-inch rows) no tire should run on a row except for flotation tires on combines and/or fertilizer and lime spreading trucks.
- If wide flotation tires are used, they must be big enough that the inflation pressure will be below 18 psi to minimize compaction on trafficked rows.

- Use a Geographic Positioning System (GPS) to guide field operations and wheeled/track traffic when the designated traffic lanes are obscured.
- Once the tram lines or traffic pattern is established, do not till deeper than 4 inches**.**

Documentation and Implementation Requirements

Participant will:

- ☐ Prior to implementation, develop a plan to limit wheel/track traffic to no more than 25 percent of the soil surface.
- ☐ Prior to implementation, complete the following table to provide the current and any planned changes to crop row width.

Crops in Rotation (shown in sequence)	Current Crop Row Width	Planned Crop Row Width

- ☐ Prior to implementation, complete the following table to provide the current equipment width and spacing used for the above crop rotation.

Equipment Used in Crop Rotation	Width of Equipment (feet)	Tire/Track Spacing (on-center Inches)

- ☐ Prior to implementation, complete the following table to provide any **planned changes** to equipment width and spacing used for the above crop rotation.

Equipment used in Crop Rotation	Width of equipment (feet)	Tire/Track spacing (on-center Inches)

Equipment used in Crop Rotation	Width of equipment (feet)	Tire/Track spacing (on-center Inches)

- ☐ During implementation, the same tracks must be used for all high load traffic continually. High wheel load traffic is any tire or track that bears a load higher than 6,000 pounds at 30 psi or 6 tons per axle.
- ☐ During implementation, use a Geographic Positioning System (GPS) to guide field operations and wheeled/track traffic when the designated traffic lanes are obscured.
- ☐ During implementation, once the tram lines or traffic pattern is established, do not till deeper than 4 inches**.**
- ☐ During implementation, if ruts develop, use tillage or other specialized equipment to remove ruts and reestablish controlled traffic lanes.

NRCS will:

- ☐ As needed, provide technical assistance to meet the criteria of the enhancement.
- ☐ Prior to implementation, verify the developed plan will limit wheel/track traffic to no more than 25 percent of the soil surface. **Percent wheel/track traffic = _____**
- ☐ Prior to implementation, ensure that controlled traffic lanes are planned and implemented in a manner that avoids concentrated flow that may result in gully erosion.
- ☐ After implementation, verify the plan was implemented to limit wheel/track traffic to no more than 25 percent of the soil surface. **Percent wheel/track traffic = _____**

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 _____

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_____ _____
NRCS Technical Adequacy Signature Date