



CONSERVATION ENHANCEMENT ACTIVITY

E595E

CONSERVATION STEWARDSHIP PROGRAM

Eliminate the use of chemical treatments to control pests and to increase the presence of dung beetles

Integrated Pest Management - 595

APPLICABLE LAND USE: Pasture; Range

RESOURCE CONCERN: Animals

ENHANCEMENT LIFE SPAN: 1 Year

Enhancement Description

Pests and parasites can have a significant impact on the economic viability of livestock operations by affecting the performance and health of animals. The use of broad-spectrum insecticides, pour-ons and avermectins have been shown to have a detrimental effect on dung beetle populations. Having a healthy population of dung beetles facilitates the recycling of nutrients and promotes soil and grassland health. By eliminating the application of broad-spectrum insecticides, pour-ons, and avermectins, including injectable avermectins, for pest control in and on livestock along with rotational grazing and higher stock densities has shown to increase the dung beetle population. Use of natural or alternative methods of pest control over multiple years is encouraged.

Criteria

- Determine the chemical treatments that are harmful to the dung beetle population and eliminate use. Rotational grazing management and the use of natural treatments for pest control will be implemented. Follow all land grant university recommendations and methods of evaluations.
- A written grazing plan for matching the forage quantity and quality produced with the grazing and/or browsing demand will be followed.

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- Maintain diversity of rangeland plants to optimize delivery of nutrients to the animals by incorporating the intensity, frequency, timing and duration of grazing and/or browsing needed as determined by a planning process that includes:
 - A resource inventory with ecological site description or reference sheet and structural improvements and existing resource conditions,
 - Grazing plan that provides for 45 days or more recovery period between grazing events
 - All potential contingency plans

- Supplemental feed and/or minerals will be balanced with the forage consumption to meet the desired nutritional level for the kind and class of grazing and/or browsing livestock.



Documentation Requirements

Participant will:

- Prior to implementation, provide documentation for review showing producer’s record of integrated pest management meeting Conservation Practice Standard Integrated Pest Management (CPS 595) general criteria.
- During implementation, keep documentation, such as records, plans, receipts, showing the implementation of the activities selected including:
 - Written documentation of what chemical treatment(s) that were replaced by non-harmful alternative method(s).
 - A written plan for matching the forage quantity and quality produced with the grazing and/or browsing demand will be followed.
 - Record of rotational grazing.
- After implementation, make documentation available for review by NRCS to verify implementation of the enhancement.

NRCS will:

- Prior to implementation, provide and explain NRCS Conservation Practice Standard Integrated Pest Management (CPS 595) as it relates to implementing this enhancement.
- As needed, provide technical assistance to the participant as requested.
- After implementation, verify implementation by reviewing records kept during enhancement implementation.

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 Acres Applied _____ Fiscal Year Completed _____

NRCS Technical Adequacy Signature

Date

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SOUTH DAKOTA (SD) SUPPLEMENT TO CONSERVATION ENHANCEMENT ACTIVITY

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Additional Criteria for SD:

In addition to the criteria specified in the national job sheet E595E, the following additional criteria apply in SD:

- Reduction of livestock pests may be accomplished through management and alternative pest control measures. Grazing management can help break up the pest cycle and reduce the pest's ability to re-infect the animal. The following grazing requirements will be met:
 - Maximum 50 percent (%) utilization. Ocular methods on key or representative areas are adequate, but utilization methods such as landscape appearance or key species should be used to calibrate field estimates. Exceptions include dormant season grazing (60% utilization) and grazing prescriptions on rangeland that are designed to alter the present plant community through intensive grazing by livestock (i.e., suppression of invasive species). In these cases, the desired degree of use of management species should be documented within the grazing plan and/or assistance notes.
 - Having adequate residual grass heights will help limit the number of pests that may end up in the animal's mouth and stomach as their grazing will occur higher than where the pests are
 - Adequate plant recovery periods must be provided. Provide a minimum of 45 days of growing season recovery between grazing events (for both pasture and range). The growing season is approximately April 1st through October 1st.
 - Having longer rest periods in the rotation, limits the survival rates of the pests in most cases. A longer rest period will limit the accessibility the pests have to their host.
 - Alter timing of grazing in each grazing unit by at least 2 weeks from year to year.
- Alternative pest control measures may include (but are not limited to) the use of walk-through fly traps (shown below). For construction specifications, see the design at the end of this document (which is also available at the Missouri Extension website: <https://extension2.missouri.edu/mx1904c6>, click on yellow box to the right "Download this publication").



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Dairy Cow walking through a horn fly trap.

- For additional grazing management information see the SD Prescribed Grazing Standard (528) and the appropriate SD Range Technical Note.

Additional Documentation Requirements for SD:

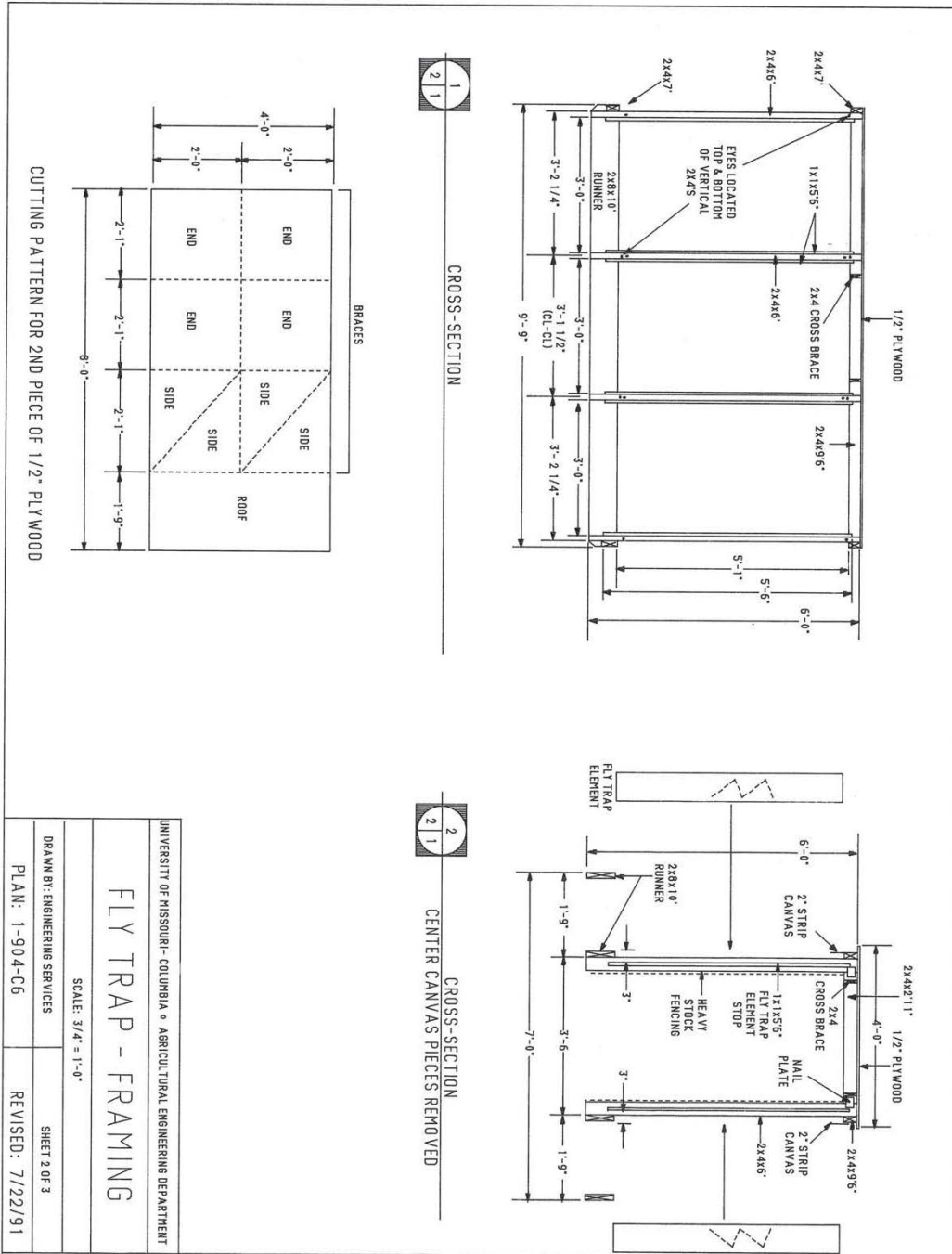
In addition to the documentation requirements specified in the national job sheet E595E, the following additional documentation requirements apply in SD:

- Complete the SD Grazing Tool (SD-CPA-39 Forage/Animal Inventory, Grazing Schedule using the SD-CPA-15 or similar form, and SD-CPA-16).
- Complete a drought contingency plan using the SD Drought Tool or provide the participant with a copy of the example drought contingency plan located within the South Dakota Prescribed Grazing Technical Note No. 9.



Horn Fly Trap for Cattle:

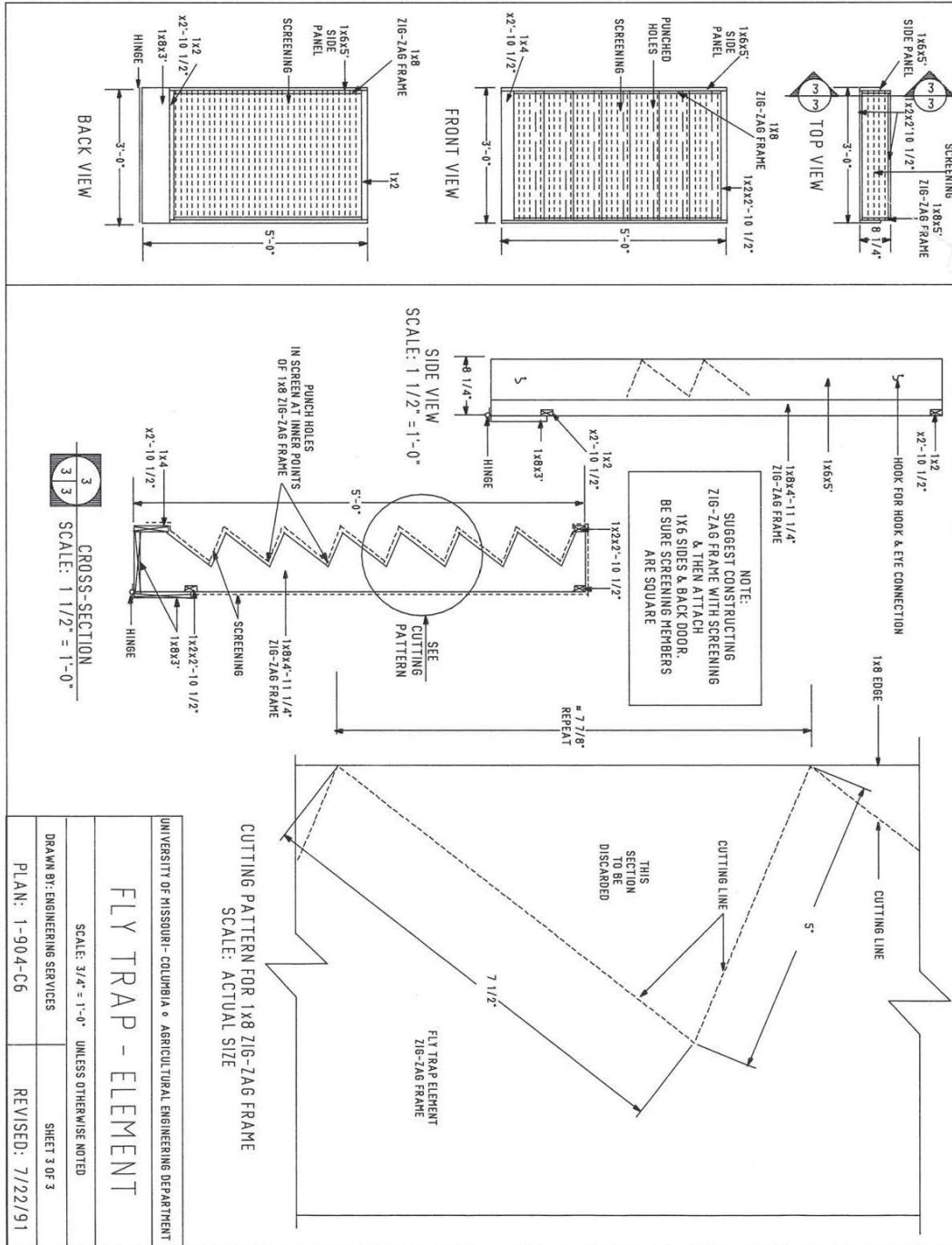
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Horn Fly Trap for Cattle (continued):

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Horn Fly Trap for Cattle (continued):

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