Conservation Cooperative Agreement
Journagan Ranch

Working Cattle Ranch

1000 Head of Cattle
Cooperative Agreement Between the Missouri Department of Conservation and the Missouri State University

This Agreement, entitled Integration of Conservation and Agriculture Demonstrations on MSU properties, is made and entered into by and between the Missouri Department of Conservation (MDC) and Missouri State University (MSU).

Background and Purpose

The purpose of this agreement is to provide for the conservation and restoration of natural resources on properties owned and operated by Missouri State University. This will include opportunities for education for use of students and faculty as well as the general public in areas where our organizations have common interests in the social, economic and environmental benefits of quality habitat for people and nature and citizens' understanding of and engagement in natural resource stewardship.
Developed Two Forest Management Plans
a Grassland Plan/Journagan Ranch

Developed a Forest Management Plan
The Woodlands

Landowner Field Days
Tours for Students/FFA Instructors
Accomplishments
• Five alternative livestock water facilities
• 4.0 miles of livestock exclusion fencing
  • 2.5 miles of fire line
• 20 acres glade/woodland thinning
• 35 acres native warm season grass conversion
  • Water Quality Testing
  • Quail Covey Count Study
• 100 acres prescribed fire
• 3 Pollinator Plots/Jobsheet
34 acre
Native Grass Establishment
Upland Water
Livestock Water
Livestock Exclusion Fence
Glade Woodland Complex
Quail Covey Count Survey

- Attended Workshop - Columbia
- Designed Plan
- Established 13 Listening Points
- Collected Data
- Established Base-Line Population Data
- Conducted a College Class, Fall 2016
Establish Fire Lines – Prescribed Fire

• 2.4 Miles

• Encompasses 100 acres of Glade – Woodland

• Burned Spring 2016
WATER QUALITY TESTING

• ESTABLISH A BASE LINE

• MEASURE EFFECTIVENESS OF PRACTICES

• ESTABLISH BMP’s
About the Project

Running through the heart of Journagan Ranch is Clifty Creek. For many years the Creek served as a watering source for livestock on the Ranch.

When allowed access, cattle can impose a variety of water quality issues ranging from streambank erosion to high E-Coli levels. Impeding cattle from entering the waterway is a highly effective conservation practice.

With the help of a grant from the Missouri Department of Conservation, a fence will be constructed to prevent livestock from entering the Creek. To compare the before and after effects of the fencing, a multi-year water quality research project began in summer of 2016. Researchers predict a change in the Creek's total coliform, phosphates, nitrates, and pH. An increase in vegetation within the riparian zone leading to a reduction in streambank erosion is expected.

Contact Missouri State University School of Agriculture

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Journagan Ranch: Water Quality Project Manual

Missouri State University:
William H. Darr School of Agriculture
Plans for 2016:

* 100 acres of Prescribed Fire
* Two Additional Alternative Water Facilities
* One additional Wildlife Watering facility
* Two Miles of Livestock Exclusion Fencing
* 100 Acres of Forest Thinning
* Butterfly Milkweed Seeding Around Pond Sites
* Pollinator Work and Seeding on Glade/Woodlands
* Landowner Field Day
OUTREACH
Pollinator Habitat Rehabilitation Project

In recent years, population of pollinator insects have been declining. To help curb the drop in numbers of these insects, special areas have been planted to native forbs, wildflowers and grasses. These areas are located around redesigned ponds that are now fenced and serve as reservoirs for alternative watering sources for the livestock. This not only provides for clean livestock water but can greatly improve livestock grazing efficiency.

Influenced by the Missouri Department of Conservation and the Natural Resources Conservation Service, the area utilizes native plants which flower on a three season rotation. To help sustain nesting habitat, edge feathering is applied around the border of the pollinator habitat and along woodland edges. These areas will serve as demonstration sites to show how wildlife friendly practices can be incorporated into the management a working cattle ranch.

About Journagan Ranch

Donated to Missouri State University by the Leo Journagan family, the ranch is a 3,300 acre working cattle operation. The diversity of the grounds allows faculty and students to conduct research and study the effectiveness of conservation practices.

By generously donating the Ranch, the Leo Journagan family awarded the campus community with the chance to apply classroom studies to real-world applications.

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Journagan Ranch Conservation Project

Missouri State University: William H. Darr School of Agriculture
Journagan Ranch
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* LANDOWNER FIELD DAYS
* STUDENTS FROM MSU
* ALUMNI GROUPS
* LEGISLATORS
  • AGENCY REPRESENTATIVES
  • FFA INSTRUCTORS
Questions?