

**CONSERVATION INNOVATION GRANTS
Final Report**

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| Grantee Name: Heron Lake Watershed District | |
| Project Title: Conservation Tillage Demonstration Project | |
| Project Director: Jan Voit | |
| Contact Information: | Phone Number: 507-793-2462 E-Mail: hlwd@roundlk.net |
| Period Covered by Report: October 1, 2005 to May 7, 2008 | |
| Project End Date: May 7, 2008 | |

Summarize the work performed during the project period covered by this report:

2005

- The official start date for the Conservation Tillage Demonstration Project was October 1, 2005.
- Project partners (Heron Lake Watershed District - HLWD, University of Minnesota Extension Service – U of M, North Heron Lake Game Producers Association - NHLGPA, Fairland Management Company, and Pietz Farms) met on October 5 to review the plan of work and responsibilities.
- Planning for the conservation tillage plot began on October 17. The first step of flagging the plot was done on October 31. The remainder of the flagging was finished on November 11. Tillage methods were completed as recommended by the University of Minnesota.

2006

- A committee meeting was held on February 3, 2006. Project updates were reported by each of the partners. Plans for planting the plot were discussed and partners volunteered for various responsibilities. The date for the field day was set for September 7 at 5:30 p.m. The rain date is September 12.
- Emails to partners were sent out regularly to maintain communication. The next scheduled meeting was held on June 8.
- An informational sign was drafted and approved by partners on February 28, 2006. The sign draft was then sent to Tri-State Litho on March 15. Tri-State Litho returned a rough draft and cost estimate for the sign. We await their final draft. Location of the sign was flagged on March 25.
- Seed was ordered for the plot on March 31 and was picked up by the producer. Fertilizer was applied to the bean ground last fall and was applied to the corn ground this spring. Equipment was readied for planting.
- The corn was planted on May 12.
- The beans were planted on May 21.
- Residue checks were performed by Ross Behrends, Chris Bauer, and the summer interns on May 15.
- A rainfall runoff study was attempted by U of M and HLWD staff on May 30, but was not completed due to heavy soil compaction in the field.
- Ammonia nitrogen was side-dressed on June 5.

- A meeting was held on June 8 to bring plans for the field day.
- Stand counts were done on June 14.
- The informational sign was installed by HLWD interns and NHLGPA members on June 16.
- The plot was cultivated on June 30.
- Soil sampling was completed in July.
- End rows were seeded to oats on July 21.
- Emails were regularly sent to partners to maintain communication.
- The HLWD's August newsletter contained detailed information regarding the CIG grant and fall field day. This letter was distributed to the HLWD mailing list, approximately, 3,400 addresses, which included watershed residents, government agencies, and legislators.
- On August 23, project partners met to make final preparations for the fall field day.
- A news release was drafted and sent to local newspapers and radio stations. A reminder postcard was drafted and mailed to watershed residents, government agencies, and legislators. An interview was done with KWOA radio in Worthington.
- Two root pits (one in corn, one in beans) were dug on September 6.
- The CIG Fall Field Day was held on September 7. Project partners set up the tent, tables, chairs, and registration table. Signs with balloons were installed along Highway 60 and County Road 20. New Vision Co-op provided strip-till equipment and staff to answer questions. Signs were installed near one corn and one soybean rotation, showing the tillage method used. Information regarding federal and state conservation programs, together with HLWD cost-share and incentive programs, was compiled and distributed to attendees.
- A welcome was given by Jan Voit, HLWD Administrator. Mark Pietz, farm operator, provided background on the farming operation and his reasons for participating in the project. Liz Stahl, Regional Extension Educator, U of M, provided information about the research project. Jodi DeJong-Hughes, Regional Extension Educator, U of M, explained the purpose of root pits and provided public education about manure and nutrient management, soil fertility and tillage management, soil erosion, and compaction.
- Attendees completed an evaluation survey.
- Supper was served by NHLGPA.
- Project partners packed the tent, tables, and chairs, and cleaned the site.
- A follow-up meeting was held on September 18. The purpose of the meeting was to discuss the field day and make suggestions for 2007. Plans for harvest were discussed.
- A summary of the field day survey was completed and is included in the attachments.
- Thank you letters were sent to organizations that helped with the field day.
- The beans were harvested on October 6.
- The corn was harvested on October 25.
- Emails were regularly sent to partners to maintain communication.

2007

- An article regarding the CIG plot was drafted and included in the HLWD 2006 Annual Report.
- U of M staff continued to work on summarizing the yield data from the 2006 plot.
- Project partners met on February 15 to begin planning for spring planting.

- An abstract providing project background and update information for the CIG conservation tillage demonstration plot was submitted to USDA/NRCS in Washington, DC on March 20.
- An article regarding the CIG plot was drafted and included in the NHLGPA newsletter.
- The plot was prepared for planting on May 2.
- The corn was planted on May 3.
- The soybeans were planted on May 18.
- Residue checks were done by Ross Behrends, Chris Bauer, and the summer interns on May 14.
- In May, the HLWD was chosen to give a poster presentation regarding the conservation tillage demonstration project at the CIG Showcase, which was part of the National Soil and Water Conference in Tampa, Florida.
- Project partners met on June 6 to discuss spring planting and begin plans for the fall field day.
- Stand counts were done in the corn on June 6.
- HLWD and U of M staff created the poster presentation in June and July.
- Ross Behrends, Watershed Technician, represented the HLWD at the National Soil and Water Conference in Tampa, Florida from July 22 through July 25.
- Stand counts were done in the soybeans on July 25.
- In July, the HLWD was chosen to give a poster presentation regarding the conservation tillage demonstration project at the Minnesota Water Resources Conference in Minneapolis, Minnesota.
- In August, the HLWD was asked to submit an article and pictures regarding the conservation tillage demonstration project to the Journal of Soil and Water Conservation, a national publication. The article was published in their November/December 2007 magazine.
- On August 21, the board of managers of the HLWD approved funding for continuing the plot in 2008.
- U of M staff continued to work on summarizing the yield data from the 2006 plot.
- The HLWD's August newsletter contained detailed information regarding the CIG grant and fall field day. This letter was distributed to the HLWD mailing list, approximately 3,400 addresses, which included watershed residents, government agencies, and legislators.
- Project partners met on August 22 to finalize plans for the fall field day.
- An article regarding the CIG plot was drafted and included in the NHLGPA newsletter.
- A news release was drafted and sent to local newspapers and radio stations.
- Two root pits (one in corn, one in soybeans) were dug on September 4.
- The CIG Fall Field Day was held on September 5. Project partners set up the tent, tables, chairs, and registration table. Signs with balloons were installed along Highway 60 and County Road 20. Signs were installed near one corn and one soybean rotation, showing the tillage method used. Information regarding federal and state conservation programs, together with HLWD cost-share and incentive programs was compiled and distributed to attendees.
- A welcome was given by Jan Voit, HLWD Administrator. Mark Pietz, farm operator, provided background on the farming operation and his reasons for participating in the project. Liz Stahl, U of M Regional Extension Educator, provided information about the research project. Jodi DeJong-Hughes, U of M Regional Extension Educator, explained the purpose of root pits and provided public education about manure and nutrient management, soil fertility and tillage management, soil erosion, and compaction.
- Attendees completed an evaluation survey.

- Supper was served by NHLGPA.
- Project partners packed the tent, tables, and chairs, and cleaned the site.
- A follow-up meeting was held on September 19. The purpose of the meeting was to discuss the field day and make suggestions for 2008. Plans for harvest were discussed.
- The soybeans were harvested on October 1.
- The corn was harvested on October 29.

2008

- Project partners met on February 1 to begin planning for the spring workshops.
- The HLWD's February newsletter contained detailed information regarding the CIG grant and the research results workshops. This letter was distributed to the HLWD mailing list, approximately 3,400 addresses, which included watershed residents, government agencies, and legislators.
- A promotional brochure for the workshops was created by the HLWD. U of M partners distributed the brochures at their winter meetings and other partners made them available at local businesses and organizations.
- HLWD staff participated in an interview on KWOA radio in Worthington to promote the workshops.
- News releases were prepared and distributed to local radio stations and newspapers.
- U of M staff compiled data and prepared presentations for the workshops.
- A guest speaker was invited to make a presentation on carbon credits and bio-energy for the workshops. NRCS and SWCD staff were asked to make a presentation on Best Management Practices funding available through their organizations.
- The CIG conservation tillage demonstration plot research results workshops were held in Fulda and Lakefield on March 11 and in Worthington on March 12. Project partners set up tables, chairs, and the registration table. A welcome was given by Melanie Luinenburg, HLWD Education Coordinator. Liz Stahl, U of M Regional Extension Educator, provided information about the plot research evaluations and nitrogen management. Brian Christiansen, Murray NRCS, presented a summary of the EQIP program eligibility requirements at the Fulda workshop. Brent Pavelko, Jackson NRCS, presented EQIP information at the Lakefield workshop. Steve Woltjer, Nobles NRCS, provided EQIP information at the Worthington workshop. Don Reicosky, USDA-ARS, explained agriculture and bio-energy, carbon cycling, sequestration, and credits. Jesse Poulson, Avoca Spray Service, described guidance systems. Dave Bau, U of M Extension, provided the plot economic evaluation.
- Workshop participants completed an evaluation. Refreshments were provided by the HLWD.
- Project partners rearranged the tables and chairs, and cleaned the sites.
- Articles regarding the field day were published in the *Worthington Daily Globe* and *Tri-County News*. Photos of the Lakefield workshop were included in the *Lakefield Standard*.
- Attendee evaluations were summarized. The summary is included with the attachments.
- An article regarding the project to date was written for the NHLGPA Spring Newsletter.
- Thank you notes were sent to the workshop speakers.
- The final report was written and submitted to USDA/NRCS on May 7.

Describe significant results, accomplishments, and lessons learned. Compare actual accomplishments to the project goals in your proposal:

Goal 1: Public Education

Establish a demonstration site. The demonstration site was established in October 2005.

Establish root pits. In 2006, root pits were installed on September 6 and destroyed on September 8. In 2007, root pits were installed on September 4 and destroyed on September 6.

Field days and three winter workshops. In 2006, the first annual field day was held on September 7. In 2007, the fall field day was held on September 5. Workshops were held on March 11 and 12, 2008.

Goal 2: Evaluation and Recommendations

Evaluate. Project partners believe that the 2006 CIG Fall Field Day was a tremendous success. Nearly 100 people were in attendance. Survey results show that participants were pleased with the field day and information presented.

Project partners believe that the 2007 CIG Fall Field Day was a tremendous success. While attendance was lower than the previous year, survey results show that participants were pleased with the field day and information presented.

Project partners believe that the information provided at the 2008 workshops adequately described the project, the necessity for conservation tillage, and the economics. Workshop participants provide positive comments regarding the event and information presented. Project partners were disappointed in the attendance at the meetings.

Publish tillage recommendations. Tillage recommendations and economic analysis was completed by U of M staff and presented at the spring workshops in 2008. Information presented is included in the attachments.

Strengthen and extend partnerships. Partnerships were strengthened and extended as a result of this project. Other agencies and individuals cooperated with plot needs, such as seed and fertilizer, at discounted prices, further extending partnerships and public relations. Agency personnel contributed their time and talents to present information at field days and workshops. This partnership has been extended for four more years due to additional funding awards as described in the next section.

Describe the work that you anticipate completing in the next six-month period:

- Though the funding for this project through the CIG grant has ended, the project will be continued. The HLWD is funding the plot in 2008 through their general operating levy. The Jackson County and Nobles County Water Plans are also contributing funds for 2008.
- In addition, the HLWD applied for and received an EPA 319 grant to continue the project for another three years. This funding will begin in January of 2009.

In the space below, provide the following in accordance with the Environmental Quality Incentives Program (EQIP) and CIG grant agreement provisions:

- a. A listing of EQIP-eligible producers involved in the project, identified by name and social security number or taxpayer identification number; *Mark Pietz, 41-1765139.*
- b. The dollar amount of any direct or indirect payment made to each individual producer or entity for any structural, vegetative, or management practices. Both biennial and cumulative payment amounts must be submitted. *See attached spreadsheet.*
- c. A self-certification statement indicating that each individual or entity receiving a direct or indirect payment for any structural, vegetative, or management practice through this grant is in compliance with the adjusted gross income (AGI) and highly-erodible lands and wetlands conservation (HEL/WC) compliance provisions of the Farm Bill. *Individuals and entities receiving payments are in compliance with AGI and HEL/WC provisions.*