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Conservation Reserve Program to Row Crop Demonstration

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Conservation Reserve Program to Row Crop Demonstration

Abstract

The demonstration project was designed to examine one way of preparing Conservation Reserve Program (CRP) land for row crop production. Many producers have successfully converted CRP land for this purpose; additionally, there was an opportunity for the research farm to gain experience in this area. The goal of the project was to document one way of going through the process.

Keywords

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Disciplines

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Introduction

The demonstration project was designed to examine one way of preparing Conservation Reserve Program (CRP) land for row crop production. Many producers have successfully converted CRP land for this purpose; additionally, there was an opportunity for the research farm to gain experience in this area. The goal of the project was to document one way of going through the process.

Materials and Methods

The CRP demonstration site contained various prairie plant species that were established beginning in 1999. The native species were allowed to grow wild except for an annual fire burn each spring. No plans were made prior to last winter to do away with the CRP demonstration, so all techniques used in the CRP to row crop demonstration were based on a process that started in the spring.

The first activity to prepare the site was burning the old plant debris on March 18. Using fire on the area revealed that insects and animals had created uneven areas in the field. To alleviate the condition, two passes were made with a Phoenix harrow on April 5.

Soybeans were planted on May 11. The soybeans were planted no-till in 30-in. rows at 165,000 seeds/acre approximately 1.5 in. deep. The planter was equipped with 1-in. fluttered coulters mounted ahead of each seed unit. After planting, the site was sprayed with 1.0 quart Dual II Magnum[®], 1.0 quart Roundup Power Max[®], and 2.5 lb ammonium sulfate per acre on native plants and other weeds that were up to 8 in. tall. Glyphosate was applied three more times during the season. The first of these applications

occurred on May 25 as a way to kill out emerging and reemerging native plants and weeds. The last two applications were made on June 24 and July 19. The soybeans were harvested on October 5.

Results and Discussion

Burning the old vegetation was done to improve planting and to improve herbicide contact with native plants and weeds. The use of a Phoenix harrow worked well to help level the site without significant tillage.

Some of the native plants required up to three applications of glyphosate to be completely killed; however, each application kept the plants chemically “mowed back” to where there was little apparent competition with the soybean crop. Dual II Magnum[®] was applied as a preemergent herbicide. However, there are other available preemergent herbicides that may work better for producers. The decision to use Dual II Magnum[®] was based on rotation concerns unique to the farm.

The last two glyphosate applications could have been combined into one application. The first of these applications went on earlier than needed, however, other fields were being sprayed at the time, and the herbicide application was made for convenience. If the application had been delayed, the last herbicide application may have been avoided without compromising weed control.

There were no major pest problems during the year. Yield checks were taken during harvest that averaged 71.5 bushels/acre.

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