Abstract: This project looked at two ways to help dairy farmers—improvement of corn silage used in feeding their herds and adding a cover crop with potential for feed and erosion control.

Results showed how rye was planted, maintained, and harvested and how timing of planting can affect the growth and overall use of rye. Twelve locally grown hybrids were selected to evaluate corn silage yield traits and used in the MILK2006 Equation and Corn Picker analyses. Producers learned how traits are analyzed and what tools are available to them to make a profitable decision.

What was done and why?
Corn silage is harvested from about 1.8 percent of Iowa corn acres. Most corn silage is grown in the northeast and northwest portions of the state where the majority of dairy herds are located and is critical to the nutrition needs of these animals. Corn grown for silage is harvested early enough that a cover crop of winter rye can be planted at the end of the growing season. When no-till winter rye is planted after the silage is harvested, the land is protected from winter wind and water erosion. The rye, harvested in mid- to late May, is medium-quality protein forage, which makes ideal feed for heifers or dry cows.

This project on corn silage had two objectives.
1. Show how to increase a farmer’s profitability by testing corn hybrids for economically important corn silage yield traits.
2. Offer information about the most efficient ways to adopt winter rye as a fall cover crop that can help conserve soil.

What did we learn?
This project demonstrated to farmers/landowners how the use of rye as a cover crop can be incorporated into their cropping systems. This project also showed producers how to evaluate corn silage hybrids and the value of these evaluations to their operation.

As a result of this project, farmers should consider several factors when they decide to establish and harvest rye. Among the variables are the timing of corn silage harvest and manure application, and the timing of seeding rye to establish at least 3-4 inches of growth before frost. Low prioritization of timely planting relative to other work in the farm operation can result in stand failures or lower forage yields in spring.

The other conclusion of this project was the need for a single tool to accurately compare hybrids. This project used two different tools (Corn Picker and Milk 2006); however, they do not result in the same hybrids being chosen. Institutions and industry need to be aware of these differences when communicating results with producers.