The Economic Feasibility Of Variable Rate N Application in Irrigated Corn. (A08-koch161355-Oral)

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Abstract:

Over the past several years growers have begun to adopt precision farming. However, they continue to question the profitability of this technology. No data currently exists in the Western Great Plains region demonstrating the economic feasibility of precision farming technology. The objective of this study is to assess the economics of uniform versus variable-rate nitrogen (N) fertilizer application on farm fields. The assessment will include various techniques for variable-rate N application that are commercially practiced. An economic analysis will compare and contrast the cost of each technique to determine which method of N application is most profitable. On farm studies were conducted in 2001, on one furrow-irrigated and two sprinkler irrigated corn (Zea mays L.) fields in northeastern Colorado. GPS and GIS technology was used to perform uniform and variable-rate N applications and to monitor grain yields. Using enterprise budget software developed by Colorado State University and USDA, operation schedules and enterprise budgets were constructed specific to each site to analyze the economics of each application technique. Results will be presented at the ASA meetings.

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