## Emergence uniformity effects on individual plant yields for corn in alternate tillage systems. (C02-gonzalo183022-Poster)

Authors:

- M.Gonzalo Purdue University, West Lafayette, IN
- T.J.Vyn Purdue University, West Lafayette, IN
- L.M.McIntyre Purdue University, West Lafayette, IN

## Abstract:

Uniform emergence in corn has been proposed as a requirement to achieve potential yields. Prior studies have revealed that yield losses result when corn is planted on different dates within the same row. However, less information is available on the yield impact of emergence uniformity on corn produced in normal field conditions - all seeds planted on the same day - or on the relationship of emergence versus subsequent developmental uniformity of corn plants within a row on final yield. We examined the individual-plant consequences of emergence variability in experiments involving the response of corn to tillage systems ranging from no-till to conventional fall tillage.Plant-to-plant variability for days to emergence, spacing, heights, leaf stages, silk emergence and final yield were analyzed. We will discuss how analyses based on these individual plant parameters allowed us to determine the relative importance of emergence variability to individual plant yields as well as corn yield response to tillage treatments.

**Corresponding Author Information:** 

Martin Gonzalo Purdue University 1150 Lilly Hall (Agronomy Department) West Lafayette, IN 47907 phone: 765 496 2211 e-mail: mgonzalo@purdue.edu

## **Presentation Information:**

Presentation Date: Monday, November 11, 2002 Presentation Time: 4:00-6:00 pm Poster Board Number: 1236R

## **Keywords:**

Emergence uniformity, Corn, Tillage systems