# Yield Components as Indirect Selection Criteria for High-Yielding Soybean Cultivars at Late Planting Dates. (C03-board080213-Poster)

**Authors:**

- J.E.Board - *Louisiana State University Agricultural Center*
- M.S.Kang - *Louisiana State University Agricultural Center*
- M.L.Bodrero - *National Institute of Agricultural Technology*

## Abstract:

Cultivar selection for late-planted soybean in the wheat-soybean doublecropping system is an important production problem. Because of cultivar x planting date interactions, results from state-wide trials conducted at optimal planting dates are not applicable to late-planted soybean. The objective of this study was to identify yield components that could be used as indirect selection criteria to identify high-yielding cultivars for late planting dates. A two-year study (1998 and 1999) consisting of 26 cultivars was conducted at a mid-July planting date at Baton Rouge, LA (30 N Lat). A similar study involving 27 different cultivars was conducted for one year at Los Oliveros, Santa Fe Province, Argentina (33 S Lat) planted in early January, 1999. Experimental designs were randomized complete blocks with four replications and one factor (cultivar). Data were obtained on plot yield, seed per square meter, seed size, seed per pod, pod per square meter, pod per reproductive node (a reproductive node is one having at least one pod with at least one seed), and reproductive node per square meter. Data were analyzed by ANOVAR with mean separartion according to LSD ($P<0.05$). Correlation and path analyses were done for phenotypic and genotypic levels. Across years, yields at Baton Rouge ranged 1183 to 2992 kg per ha, while yields in Argentina ranged from 1688 to 2809 kg per ha. Yields at Baton Rouge increased with maturity group, but not in Argentina. For both phenotypic and genotypic levels, selection for either seed per square meter or pod per square meter identified higher-yielding cultivars, although seed per square meter was more accurate.

**Corresponding Author Information:**

James Board
Louisiana State University Agricultural Center

phone: 225-578-1208
fax: 225-578-1403
e-mail:

Dep. of Agronomy, Rm. 104 Stugis Hall, jboard@agctr.lsu.edu
LSU
Baton Rouge, LA 70803

**Presentation Information:**

Presentation Date: Wednesday, November 13, 2002
Presentation Time: 4:00-6:00 pm
Poster Board Number: 1117

**Keywords:**

soybean, indirect selection, yield components, late planting dates