Plant Cutoff Effects on Field Pea Growth and Yield. (C02johnson180413-Poster)

Authors:

- B.L.Johnson* North Dakota State Univ., Fargo
- P.J.Petersen North Dakota State Univ., Fargo
- A.E.Slinkard Univ. Saskatchewan, Saskatoon, SK

Abstract:

Recent expansion of field pea (Pisum sativum L.) as an alternative crop in ND requires estimates of yield loss that could be caused by storms. The objective of this study was to determine the influence of plant cutoff and growth stage on field pea. Field evaluations were conducted at Erie, ND in 2000 and 2001 with a semi-leafless, yellow cotyledon field pea cultivar. The experiment was a RCBD in a factorial arrangemen with two factors, growth stage and cutoff level. Plant cutoff consisted of terminal bud removal at designated stages. The year x stage x cutoff interaction for yield was significant. At stage V12 yield was reduced 12 and 14% in 2000 and 2001, respectively, at 100% plant cutoff. Yield in 2000 for stage R1 was reduced 9 and 31% at 66 and 100% plant cutoff, respectively. In 2001 yield at stage R2 was reduced 19 and 33% at 66 and 100% plant cutoff, respectively. Plant cutoff did not influence yield at R1 and R2 in 2001 and 2000, respectively. Yield compensation at reproductive stages was largely from aerial seed bearing branches. The degree of yield compensation was greater in 2000 where temperature and moisture during seed fill were better than in 2001. Yields in 2001 were approximately 65% of those produced in 2000.

Corresponding Author Information:

Burton Johnson North Dakota State Univ. Dept. of Plant Sciences, North Dakota State Univ. Fargo, ND 58105 phone: 701-231-8895 fax: 701-231-8474 e-mail: burton.johnson@ndsu.nodak.edu

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