Pea (Pisum sativum L.) Production as Affected by Differential Cultivars and some Weed Control Treatments

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Abstract:

A field experiment was done at Shandaweel Agricultural Res. Station, ARC, throughout 2015/16 and 2016/17 seasons, to investigate the performance of two pea cultivars (Master-B and Balmoral) receiving different weed control treatments (Amex 48% EC rate 1.25 l/fed pre-emergence, Stomp 45.5% CS at 1.7 L/fed pre-emergence, hand hoeing once at 20 days after sowing (DAS) + Select super EC 12.5 at 500 cm 3/fed, hand weeding once at 20 DAS + Bazagran at 500 cm 3/fed at 40 DAS, Select super + Bazagran, hand weeding two times at 20 and 40 DAS and un-weeded) on weeds, yield and its components in pea. Results revealed that dry weight of grassy and broad-leaved weeds (g/m 2) was decreased in each cultivar when applying the different weeding treatments. Cultivars of pea considerably influenced each of growth traits, yield and its attributes in each season. Pea cultivar of Balmoral decreased dry weight of weeds (g/m 2) and significantly raised plant height, branches number per plant, pod dimension, number of ovules/pod, shell-out%, seed index, green pod yield (ton/fed) and dry seeds yield (kg/fed) relative to pea cultivar of Master-B in the first and second season. Using hand weeding two times at 20, 45 (DAS), hand weeding once at 20 DAS with any of Select or Bazagran at 500 cm 3/fed + Select super gave more decline of the dry weight of tested weeds (g/m 2) in each season. Hand weeding two times, hand hoeing once with any of Select super or Bazagran increased significantly all growth and yield attributes. The impact of interactions between cultivars of pea and weed control strategies were statistically significant effect, as by cultivating Balmoral cultivar using two times of hand hoeing or one time of hand-hoeing with spraying herbicide (select super) surpassed all other treatments in the first and second season.

Keywords:

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