

Effect of Phosphorus content on growth and yield of peas in Rudsar

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An experiment was conducted with a randomized complete block design with three replications in Guilan, Rudsar in order to evaluate the effect of phosphorus on growth and yield of peas. The treatments included: control, 20, 40, 60, 80, 100, 120 and 140 kg triple superphosphate fertilizer. These values were used as strips on the two sides of the planting lines. The traits were: plant height, number of branches, number of pods per plant, number of pods per square meter, premature pod per square meter, green pod yield, dry pod yield, dry grain yield, 1000 seed weight, stem yield, empty pod yield, harvest index, biological yield, the amount of phosphorus in the plant aerial parts at the time of harvest, the amount of nitrogen and protein during the physiological maturation and dry weight ratio on dry pods. The results of variance analysis of the studied traits showed that different values of phosphorus consumption on plant height, stem number, dry pod yield, biological yield, dry grain yield, number of pod per square meter, green pod yield, stem yield, empty pod yield, harvest index and dry grain weight ratio on dry pods had a significant effect. Comparison of the mean of studied traits showed that by increasing the amount of phosphorus up to 80 kg / ha, all traits increased gradually. But with increasing the amount of phosphorus up to 140 kg / ha, the increasing trend of these traits was stopped. Based on the results, the best amount of phosphorus was used to increase the growth and yield of peas in the area of 80 kg / ha of Triple superphosphate.

Keywords : Phosphorus, Peas, Pod yield, Grain yield, Harvest index, Biological yield

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