

An Investigation into the Effects of Planting Date on Quantity and Quality Traits of Some Potato (*Solanum tuberosum* L.) Cultivars in Ghasre Shirin

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Abstract

Potato is one of the most agricultural plants in Kermanshah province especially in Ghasre Shirin. There is about 600 hectares potato cultivation area in Ghasre Shirin agricultural lands annually. An experiment was conducted in order to determine the effect of planting date on quantity and quality of some potato cultivars during 2007 in Ghasre Shirin. This research had 4 different planting dates of 31th December, 21st January, 9st February and the first of March on three potato cultivars, Moren, Conkord and Marfona, and it was carried out in a split plot experiment based on a completely randomized block design. The cultivars were used as the main plot and planting dates as the subplot. Results show that the growing plant percent was not significant under cultivar and planting dates. Tuber weight was significant for Moren cultivar than the others, and it had a significant reduction in 10th Esfand planting date than the others. The potato yield was significant at 1% level between cultivars and planting dates so that Moren, Marfona and Conkord had 15.49, 10.7 and 9.87 ton yield per hectare respectively. The second planting date with 13.35 T/ha and the fourth planting date with 8.85 T/ha had the higher and lower yields respectively. Dry matter percent was significant at 5% level in Conkord compared to the others and dry matter percent age of produced tuber had a significant reduction from the first till the fourth planting dates. The fat and starch percent age was significant different between cultivars and planting dates but the fiber percent age was significantly by the planting dates effect. In general, the Moren cultivar was more suitable than the other cultivars and the planting dates range was the best from 31th December till 9th February in Ghasre Shirin.

Keywords: *Potato; Planting date; Yield; Cultivar*