

## Evaluation of Reaction Soybean Cultivars to Differences of Planting Dates in North of Khuzestan Conditions

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### Abstract

In order to study the effects of planting date on yield of soybean cultivars, an experiment was conducted at Agricultural Research Center of Safiabad. The design was a strip plot based on a completely randomized block design with 3 replications. The vertical factor consisted of 4 levels of planting date (8 Jun, 22 Jun, 6 July and 20 July) and the horizontal factor included 12 cultivars (L14, Sahar, 504, L17, LD8149, Williams, Safiabadi, DPX, Williams\*TN4.94, 5WCNE, BP, TN5.95\*Hack). Results showed a significant difference among planting dates, cultivars and there interaction effect. The mean of planting dates showed that the highest (3401.38 kg/ha) and the lowest (2438.46 kg/ha) grain yield belonged to 20 July and 22 June. Significance of interaction between planting date  $\times$  cultivars showed that cultivars had different reactions to changes of planting date. The mean of interaction between planting date  $\times$  cultivars showed that the highest (4222.22 kg/ha) grain yield belonged to Safiabadi cultivar in 20 July, and the lowest (1800 kg/ha) grain yield belonged to Williams cultivar in 8 June. Although the first and second planting date had longer growth period in comparison to fourth planting date, coincidence of phonological stages (Flowering) with highest temperatures was effective in growth period duration at first and second planting dates in comparison to fourth planting date. Increases in growth period length leads to increase in biological yield. Therefore, the last planting date had greater grain yield than the first planting date, and because of reduction in the duration of growing period and number of irrigation, the end of July could be recommended in this region.

**Keywords:** *Soybean, Planting date, Cultivar*