

## **Evaluation of the adaptability and suitable planting date of selected garlic varieties in Markazi province**

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The experiment was carried out to determine the most climatic adaptable variety as well as the most suitable planting date with the highest yield in Markazi province at Agricultural Research Center, Arak, in 1998-1999. The experiment was conducted on a strip-plot design with four replications in which horizontal factor including Local Tafresh variety, Local Hamadan variety, Local Ahwaz variety, Local Mazandaran variety and Local Mashed variety, whereas vertical factor including planting dates 22nd Oct., 5th Nov., 21st Nov. and 5th Dec.

Local Hamadan variety with yield of 11.590 t/ha was significant at 5% level than the other varieties except Local Tafresh variety (with 10.730 t/ha). The planting date 22nd Oct. With yield of 10.150 t/ha was significant at 5% level than the other planting dates. Concerning the interaction between variety  $\times$  planting date, Local Tafresh variety on 22nd Oct. with yield of 15.000 t/ha was significant at 1% level than the other treatments. Concerning the average weight of clove, Local Tafresh variety with the average weight of 5.1 g was significant at 1% level than the others and the planting date 22nd Oct. with 4.2 g was also significant at 1% level than the others. Moreover the interaction between the planting date 22nd Oct.  $\times$  Local Tafresh variety (with clove weight 8.3 g) was significant at 1% level than the others.

Concerning the interaction between the planting date 22nd Oct.  $\times$  Local Tafresh variety (with average weight 53.30 g of a single plant) was significant at 5% level than the others. Moreover the number of clove within a bulb, Local Hamadan variety (with 13.74 cloves/bulb) was significant at 5% level than the others except Local Ahwaz variety.

Primavar and Ringer Grano cultivars had the maximum and minimum bulb diameter respectively. Interactive effects of sowing date and cultivar indicated that the lowest branch flowering of Primavara cultivar was obtained in the first sowing time.

Resultes of this study showed that the first and second date sowings would be better for planting these onion cultivars for green onion and third sowing date would be useful to produce early onion blub in compare to control treatment.

It was concluded that Primavara cultivar could be recommended for early sowing time in this region.