

## The effect of different concentrations of foliar spraying of gibberellic acid and benzyladenine on *Berberis vulgaris*

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Barberry shrubs (*Berberis vulgaris*) are resistant to drought and salt. They are exclusively cultivated in the South Khorasan province in wide area. This experiment was performed as a factorial study in randomized complete block design with four replications. In this study, Gibberellic Acid (GA<sub>3</sub>) and 6-Benzyladenine (BA) each with three concentrations (0, 50, 100 and 200 ppm) alone and in combination with each other were sprayed on the barberry. The results showed that all concentrations GA<sub>3</sub> and GA<sub>3</sub> + BA and BA at 200ppm caused significant increase in the fruit length in comparison with the control. GA<sub>3</sub> and GA<sub>3</sub> + BA caused significant increase in fruit diameter and fruit weight in comparison with BA. GA<sub>3</sub> and GA<sub>3</sub> + BA (at all concentrations) and BA (100 and 200ppm) had significant effect on TSS (Total Soluble Solid) compared to the control. GA<sub>3</sub> (200 ppm), BA (200 ppm) and GA<sub>3</sub> + BA (at all concentrations) significantly increased anthocyanin in comparison with the control.

**Keywords:**

Anthocyanin, Fruit length, Fruit weight, Plant growth regulators.