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Hormonal regulation of fructan content of wheat seedlings during severe drought stress and recovery**Farnoosh Nemati and Faezeh Ghanati**

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Fructans as a major store of carbohydrates in wheat are involved in the protection of plants during drought. phytohormone extensively interact with each other and might counteract the negative effects of water stress exerted on carbohydrate metabolism and promote the whole plant growth. In the present study the relationship between fructan content and phytohormones was evaluated in 4-day old seedlings of a drought-tolerant (Sirvan) and a drought-sensitive (Marvdasht) wheat cultivar exposed to seven days water cessation and subsequent re-watering. In comparison with sensitive cultivar, the tolerant one accumulated more fructan (3.56 ± 0.3 mg/g FW). Analysis of phytohormon contents showed that drought stress remarkably increased the level of abscisic acid (ABA) of tolerant cultivar (~ 7 fold) higher than of sensitive one. Under water cessation, the level of gibberellic acid (GA) content decreased in both cultivars, while the extents in tolerant one was lower. After drought stress the content of indole acetic acid (IAA) did not show significant change in both cultivars. All together, the results suggest a close relation between the dynamics of phtytohormones (ABA, IAA, GA) and fructan synthesis plays a crucial role in the tolerance of wheat seedling against drought stress conditions.

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