Changes of Nitrogen, Phosphate and Potassium in Leaves of Two Almond Cultivars

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Seasonal changes of nitrogen, phosphate and potassium in leaves of two Iranian almond cultivars were studied. This research was conducted in Saman area, located in Chahar Mahal & Bakhtiari province, during 1998 and 1999. The complete randomized block with three replications was used as an experimental design. The leaf sampling was carried out after determining date of full blooming. The sampling stages include 45, 70, 95, 120, 145 and 170 days after full blooming. The results indicate a higher nitrogen concentration in early growth period. Then, it declines rapidly and leveled off after the fourth sampling stage (120 days after full blooming). The relatively same general trend was observed with phosphate but with a more fluctuation than nitrogen. Potassium concentration was high in early growth stage but declined slowly. The least changes of nitrogen, phosphate and potassium were found after stage 4,3, and 2, respectively. The maximum need and nitrogen adsorption were found during stage one to three (45 to 95 days after full blooming). There is only a significant difference in nitrogen concentration of two cultivars in stage one. The same behavior was found with phosphate. Generally, no significant differences were found with potassium during different stages for different cultivars.