Title The influence of n sources and fertilization doses on dry onion (*Allium cepa* l.) Yield and bulbs shelf life

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Abstract

The influences of different N sources and N fertilization doses on dry onion yield and bulb shelf life were estimated in an experiment conducted in Korca district, located in South East of Albania. Selected seeds of local variety "Mirasi" were directly sown in a well prepared land during the second half of March, for three successive years, from 2005 to 2007. Three different N sources (ammonium nitrate, urea and calcium nitrate) and eight N fertilization doses (0, 50, 100, 150, 200, 250, 300 and 350 kg/ha) were applied in a three replication split plot designed experiment in open field conditions. Common commercial production practices were applied during the growing period, and at the end, matured harvested bulbs were classified in marketable and non-marketable categories, and weighted separately. The dry matter content was measured in randomly selected bulbs, and the bulb's shelf life was estimated as the weight of rotted bulbs out of the total production harvested and stored in natural conditions in simple stores. Generally speaking, the increase of N doses up to 300 kg/ha was followed by a steady increase of the total yield and of the marketable percentage of matured bulbs. The same time, a constant decrease of dry matter of bulbs was clearly evident, and consequently, the increase of N doses has lead to a higher amount of rotten bulbs stored in natural conditions. For each N dose, the use of calcium nitrate as N source has positively contributed to improve the bulb shelf life.