

**Title** Rocket (*Eruca sativa* Mill.) quality affected by preharvest and postharvest factors

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**Keyword** rocket; preharvest; postharvest

### **Abstract**

Nowadays, the leaves of rocket are widely consumed in Argentine because of its pungent qualities. It is consumed along as a green salad or as part of a mix. Rocket is a fast growth crop adapted to several production systems and offers the possibility of a speciality green available over a long period of the year. In Argentine, there is limited information about crop management, postcutting shelf-life and the influence of storage temperature on the postharvest behavior. This study was carried out to evaluate rocket quality growing with two plant densities using nutrient film technique (NFT) and storage at two temperatures. Plant densities were 8 and 16 plants per plants per cell. At harvest, selected leaves were packed in bags (passive modified atmosphere) and stored in refrigerated chambers during 10 days at 1°C and 8°C. Fresh and dry weight, yield, leaf color (Minolta CR 300), leaf chlorophyll content (SPAD), oxygen (%) and carbon dioxide (%) inside the packages (Dansensor gas analyzer Checkmate 9000), weight loss (%) and electrolyte leakage (%) were measured. Overall visual quality was determined using a subjective scale. A randomized complete design was used during growth and storage period. No differences between plant densities were observed, so rocket has a good adaptability to grow at high plant density (16 plant / cell). Temperature and storage period had a significant effect on weight loss, visual quality and gas concentrations inside the bags. Long storage period and high temperatures decrease leaf chlorophyll content. At 8°C it was a high electrolyte leakage, regardless of plant density. In conclusion, NFT at high plant density is an appropriate system to obtain high rocket quality that is appreciated by the consumers.