

Title Wild rocket *Diplotaxis tenuifolia* mutant with improved storability of culinary and healthy values

Author Daniel Chalupowicz, Dalia Maurer, Alona Ovadia, Yelena Shahaar-Ivanov, Yakov Vinokur, Zion Aharon, Nehemia Aharoni and David Kenigsbuch

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Abstract

Wild rocket (*Diplotaxis tenuifolia*) with the common name of rucola belongs to Brassicaceae family and is native to Europe and western Asia. World-wide demand of rucola has increased due to the introduction of "ready to eat" fresh-cut -salads in most modern markets. In the last few years, more and more people have been introduced to the benefits of healthful food consumption containing a wide range of nutrients such as fibers, flavonoids and glucosinolates. In this study we show selection of a wild rocket mutant induced by EMS. This mutant has: i) Improved phenotypic characteristics such as appearance of the leaves: green dark and uniform shape: lanceolate and pinnatisect. ii) Delayed early flowering which facilitates crop handling during the seasons of bolting induction, autumn and spring. iii) Maintenance of postharvest quality for longer time compared to commercial cultivars, due to a delay in post harvest senescence processes and conservation of nutritional values.