

## FOOD SECURITY AND WILD FRUITS: KIWIBERRY A PROVED SOURCE OF BIOACTIVE COMPOUNDS

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Worldwide population is rapidly growing and an exponential need for food is expected to guaranty food security. Thus, it is necessary to find new food resources to fulfil this higher demand. Wild fruits represent a valuable and safe alternative to obtain nutritious and sustainable food. Kiwiberry, originally seen as an ornamental plant, has been receiving a growing interest due to their tasty and nutritious fruits. They belong to *Actinidia arguta* or *A. purpurea* species, existing different varieties and hybrids. Native from Eastern Asia, the fruits are small, with the pulp resembling the common kiwi fruit and a smooth edible peel. The kiwiberry production has been increasing in New Zealand, USA, Japan, Chile and some European countries.

A fully characterization of seven different varieties of kiwiberry (Ananasnaya, Geneva, Issai, Jumbo, Ken's Red, Maki and Weiki) grown in Portugal was done to corroborate their health promoting traits. The nutritional composition (protein, fat, ashes and total dietary fiber) was assessed by AOAC INTERNATIONAL methods. Their vitamin C content, vitamin E and fatty acid profile was determined by spectroscopic and HPLC-DAD-FL and GC-FID methods, respectively. The phenolic profile of all varieties was studied by HPLC-DAD and their *in vitro* antioxidant capacity was also determined. A multivariate analysis was performed to determine the distinctive characteristics of each variety composition.

Although in the same range, significant differences were found between the kiwiberries composition and antioxidant capacity. The most discriminant features between the seven studied varieties were their bioactive compounds content and their correspondent antioxidant capacity.