

# New strategies to reduce solanine and chaconine content in potatoes

Potatoes are a staple food for over one billion people worldwide as well as a primary source of carbohydrates and a vital crop for the South American, African and Eastern/Central Asian economies. They occupy third place (after rice and wheat) on the list of foods the world depends on for food security.

The glyco-alkaloid content in potatoes is potentially toxic and secondary metabolites such as alpha-solanine and alpha-chaconine are considered dangerous for human health.

Researchers from the Federico II University in Naples described new methods to reduce alpha-solanine and alpha-chaconine content in Marabel potatoes. They were incubated at room temperature in the dark for 24 hours and the optimal experimental condition was achieved with a sodium hydroxide (NaOH) solution at pH 12.

In the analysed samples, the reduction of alpha-solanine and alpha-chaconine was 43 and 27% respectively. The process enables the reduction of the total glyco-alkaloid content in relation to harvesting, storage and cleaning modes of Marabel potatoes.

**Source:** Romanucci Valeria, Di Fabio Giovanni, Di Marino Cinzia, Davinelli Sergio, Scapagnini Giovanni, Zarrelli, Armando, 'Evaluation of new strategies to reduce the total content of  $\alpha$ -solanine and  $\alpha$ -chaconine in potatoes', 2018, *Phytochemistry Letters*, Vol. 23, pag. 116-119.

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