

[Research and application progress of *Lepidium meyenii* (maca)].

[Article in Chinese]

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Abstract

Lepidium meyenii (maca) was a herbaceous plant of the family Cruciferae. It is native to the andes region of South America where the local people had been growing and consuming maca for centuries. The unique chemical composition and physiological function of maca were widely concerned worldwide. It was introduced to China in 2002, and were cultivated successfully in Yunnan, Tibet, Sichuan, Jilin and other places with a certain size. Maca contained not only rich nutrition such as protein, vitamin and mineral matter, but also lots of secondary metabolites as maca alkaloids, glucosinolates, volatile oils, sterols polyphenols and macaenes. Numerous studies suggested that maca may serve effects in resisting oxidation, fatigue resistance, raising fertility, regulating endocrine, enhancing immunity, tumour suppression, treating osteoporosis, regulate blood sugar and protection of nervous system. Maca was approved by the Ministry of Health as a new resource food in 2011, and its related products include food, health foods, cosmetics, etc. Certain exploratory researches were carried to take better advantage of maca's medicinal value. This paper briefly reviewed the research and application progress of maca in recent years from the aspects of botany, chemical composition, function, resources situation and related products development, which was supposed to provide reference for scientific research and utilization of maca.

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KEYWORDS: *Lepidium meyenii*(maca) ; application ; composition ; function ; research progress

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