

MACA EXTRACT (*lepidium meyenii* walp) (root)



Maca is a small root vegetable grown at high altitudes in the Andes. Known as the Incan Superfood, it is rich in trace minerals, including zinc, iodine and phytosterols.

Peruvians have eaten maca for centuries for conditions related to hormonal balance. They use it to increase fertility, improve sexual function and alleviate menopausal symptoms. Young mothers and athletes alike take maca to improve energy levels, mental clarity and focus.

MACA addresses the needs of the glandular system and may provide a natural means for improving sexual performance

Maca is a hardy perennial plant cultivated high in the Andes Mountains, at altitudes from 8000 to 14,500 feet.

The area where maca is found is an inhospitable region of intense sunlight, violent winds, and below-freezing weather. With its extreme temperatures and poor, rocky soil, the area rates among the world's worst farmland; yet, over the centuries, maca has evolved to flourish under these conditions. Maca was domesticated about 2,000 years ago by the Incas, and primitive cultivars of maca have been found in archaeological sites dating as far back as 1600 B.C.

Native Peruvians traditionally have utilized maca since pre-Incan times for both nutritional and medicinal purposes. It is an important staple in the diets of these people, as it has the highest nutritional value of any food crop grown there. It is rich in sugars, protein, starches, and essential nutrients (especially iodine and iron).

This energizing plant is also referred to as *Peruvian ginseng* (although maca is not in the same family as ginseng).

In Peruvian herbal medicine today, maca is reported to be used as an immunostimulant; for anemia, tuberculosis, menstrual disorders, menopause symptoms, stomach cancer, sterility (and other reproductive and sexual disorders); and to enhance memory. Maca has been growing in world popularity over the last several years due to several large U.S. marketing campaigns touting its energizing, fertility enhancement, hormonal balancing, aphrodisiac, and, especially, enhanced sexual performance properties.

It may well be that maca's beneficial effects for sexual function and fertility can be explained simply by its high concentration of proteins and vital nutrients. Dried maca root contains about 10% protein - mostly derived from amino acids. Amino acids (the building blocks of proteins) are required in the diet to drive many cellular functions in the body - including sexual and fertility functions. Amino acids are required to manufacture neurotransmitters such as dopamine and noradrenaline. These substances transmit signals in the nervous system and play a major role in the process of sexual arousal and physical performance during sex. The main amino acids that these neurotransmitters require include phenylalanine, tyrosine, and histidine (all three of which are found in good supply in maca). The amino acid arginine, of which maca is a significant source, is thought to assist in the generation of nitric oxide-which is thought to counteract male impotence.

The amino acid histidine also is found in maca root in high amount. This amino acid plays an often-overlooked but important role in sexual function: during ejaculation and orgasm.