

What makes Femmensesence and Revolution so different from other maca products?

1. Specific Phenotypes: Many people are not aware that within the species maca (*Lepidium peruvianum*) there exist 13 different phenotypes (phenotype: influenced by genotype and environment). For thousands of years the Peruvians knew there were different colors but never investigated the differences. Traditionally, maca was combined in whatever ratios that grew naturally and those food grade maca powders are what we have known and used since. While these standard ratio maca powders are known to benefit energy levels, adrenal health and fertility in men, we now know, through ten years of extensive research, that there are many other potential benefits to be gained from using different ratios or even from using one maca phenotype alone. In fact, Dr. Gustavo F. Gonzales Ph.D from the Universidad Peruana Cayetano Heredia in Lima, Peru and world renowned biochemist Dr. Henry Meissner Ph.D, Director of Research and Development at Natural Health International, San Francisco CA, have published more than twenty papers demonstrating that the various maca phenotypes are not just different colors. Rather, they possess different DNA profiles, different active constituents and in some cases, the different phenotypes even elicit different physiological responses in the body.



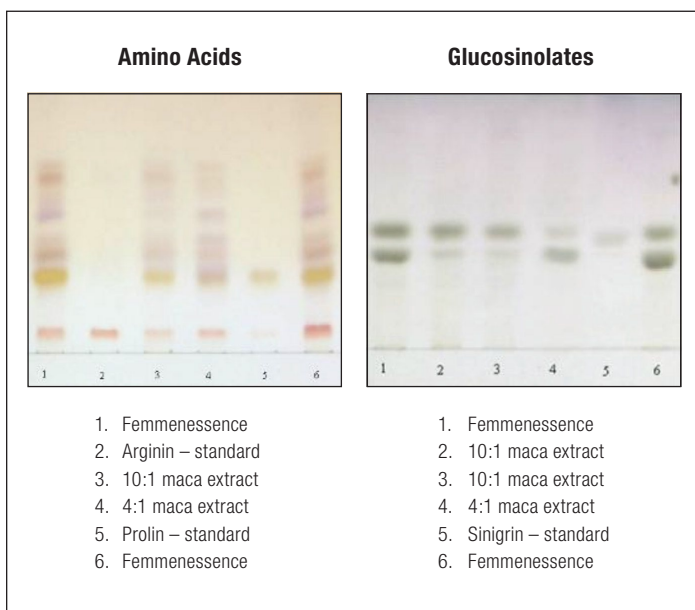
As an example, research has shown that while red maca will reduce the size of a prostate, no other phenotypes exhibit this effect, and some may even increase prostate size. Red maca has also been shown to have the strongest impact on bone health. Black maca is considered to have the strongest energy-promoting



Product	Femmensesence	Raw Maca	Gelatinized Maca	Maca Extracts
Phenotype or Color Maca Selection	Specific phenotype combinations for women at each stage of life	Random combination for energy and men's fertility	Random combination for energy and men's fertility	For sperm production and energy
Water Solubility and Bioavailability	99%	68%	87%-97%	?
Concentration	10-20 times - full spectrum of active ingredients	No	Higher than raw but less than extracts - full spectrum	4-10 times one specific active ingredient - generally sub section of glucosinolates
Peri and Post Menopausal Clinical Trial Success Rates	84%	60%	60%	NA – none designed for women yet
Reduction in Symptoms	Highly statistically significant*	Statistically significant	Statistically significant	NA
Impact on Hormones	Increase in estradiol, progesterone, supports adrenals, thyroid, reductions in cortisol and FSH*	None	None	NA
Impact on Bone Density	Increased bone density*	None	None	NA
Impact on Lipids & Cardiovascular Health	Increase in HDL, reduction in LDL, triglycerides, body weight and rebalance blood sugar*	None	None	NA

properties, is most beneficial in restoring erectile function, increasing sperm count, improving sperm motility and also exhibits the cognitive benefits of enhancing learning ability and memory. Yellow aqueous extracts of maca, if applied to your skin a few minutes prior to exposure to harmful sun rays, can prevent skin damage caused by ultraviolet radiation. Additionally, Dr. Meissner's studies on the specific phenotype combinations for post-menopausal women (commercially, known as Maca-GO® or Femmenessence) have demonstrated increases in estrogen, progesterone, thyroid and adrenal hormones while reducing FSH and cortisol. Furthermore, Femmenessence is the only maca-based product with any published clinical evidence that demonstrates improvements in hormone levels in peri- and post-menopausal women. These improvements in hormone levels from Femmenessence were further exemplified by an increase in bone density and HDL, with concurrent reduction in LDL, triglycerides and body weight. Interestingly, while many marketing claims have been made, no other study involving normal maca or gelatinized maca powders and menopausal women has been able to demonstrate these positive effects on hormones, lipids or bone. NHI's maca phenotype combination product for men, commercially known as Maca-OG® or Revolution supports the production of testosterone, growth and other hormones, with demonstrated significant improvements in men's energy, as well as cardiovascular and sexual health.

2. Highest Concentration (10-20 times raw maca): Efficacy is critical when prescribing herbs to obtain a therapeutic benefit, and maca is no different. With nearly all maca products on the market being food grade powders the most desired effects are often not seen, or extracts only contain concentrated levels of a small subsection of active ingredients. Revolution and Femmenessence have concentrated levels of the full spectrum of active ingredients as demonstrated below in this analysis of amino acids and glucosinolates. Compared to the highest concentrated maca extracts on the market in the US and Europe, Femmenessence not only has higher levels of those particular active ingredients but contains the full spectrum of active ingredients.



3. Maximized Bioavailability: Maca is a tuber and is difficult to digest raw. For that reason, the native Peruvians traditionally cooked maca the same way we would cook a potato. However, boiling point temperatures can often destroy key active ingredients, so scientifically, this process (often called gelatinization) has been improved using combinations of water, temperature and pressure to remove the starch and fiber. Dr. Meissner (Natural Health International) and La Molina University are the leaders in the development of their own gelatinization processes. Dr. Meissner has perfected the gelatinization process to such a degree that the temperature never exceeds 104°F, maintaining maca's raw status by definition, while maximizing bioavailability - increasing water solubility from 68% in normal raw maca to 99% in Femmenessence, making it the highest form of gelatinized powder available.



4. Longest Stability: Stability analysis on Femmenessence has shown that the active ingredients in maca when stored as a powder in jars or bags degenerate by over 50% within six months. While Femmenessence, when packaged in capsules and oxygen barrier blister packs, maintain efficacy for over three years.

5. Investment in Clinical Research: NHI drives forward the natural products industry with scientific credibility and evidence based clinical research through its investment in double blind placebo controlled clinical trials and subsequent publications in international medical journals. These trials demonstrate that Femmenessence provides integrative practitioners with a genuine complement, or in some cases a substitute for HRT or bio identical hormones for the first time, by truly balancing hormones at each stage of life without introducing any into the body.

6. Unparalleled Purity, Quality and Support for the Local Community: Femmenessence and Revolution are GMP, Kosher and USDA, European Union and Japanese Organic Certified. Our products contain no magnesium stearate, silicon dioxide, fillers, chemicals, excipients or additives. All are in vegan capsules, packed in recycled boxes and printed with vegetable-based inks. By taking fair trade to another level and creating infrastructure and manufacturing operations in Peru, NHI has created industry with year round employment through a vertically integrated operation. By exporting a value added finished product, not just a commodity, NHI injects over ten times more money into Peru's economy than the export of the same amount of normal raw maca powder.

