

What is Jojoba?

The word "jojoba" (pronounced ho-HO-ba) refers both to the desert plant and to the extract obtained from its seed.

Nature of the Plant. Mature jojoba plants (*simmondsia chinensis*) are woody perennial bushes native to the Sonora Desert of Arizona, northern Mexico and arid California. Jojoba is now grown commercially in Argentina, Israel, Peru and Australia, in addition to the United States.

Jojoba does not shed its leaves with the change in seasons. It is dioecious; the female plants produce seed from flowers pollinated by the male plants.

The female plants are wind pollinated. Jojoba leaves have an aerodynamic shape, which creates spiral effect, directing the pollen to the female flower. On North American farms, pollination usually occurs during the months of February and March. The pollinated female flower becomes a hardened capsule, which contains one or more developing seeds.

As the growing seed fills the capsule, the capsule wall becomes progressively thinner until dried by the hot Sonora sun. The sun-dried capsule ultimately splits open, and the mature seed drops to the ground. If you'd like to learn more about how Jojoba grows, you may take a virtual tour of our farm.

Jojoba Seed and its Extract. The color and shape of jojoba seeds are reminiscent of coffee beans, however close examination reveals significant differences. Jojoba seeds are far larger, and their size and shape are not uniform.

Differences are more than skin deep, however. Of more than 350,000 identified plant species, jojoba is the only one which produces significant quantities of liquid wax esters akin to the natural restorative esters produced by human sebaceous glands. For you chemists out there, the esters, of high molecular weight, are composed almost entirely of straight-chain acids and alcohols. The acids are a mixture of eicosanoic and docosanoic, with small quantities of palmitoleic and oleic. The alcohols consist of eicosanol and docosanol, with smaller quantities of hexacosanol and alcohols of lower molecular weight.

Jojoba seeds contain alpha, delta, and gamma tocopherols, all forms of vitamin E. The extractable liquid content of our matured jojoba seeds ranges from 50% to 54%. (For more technical information about jojoba, please consult our bibliography.)

Native Americans discovered the importance and versatility of jojoba. They heated jojoba seeds to soften them and then used pestle and mortar to create a salve or buttery substance. The latter was applied to the skin and hair to heal and condition. Native Americans also used the salve to soften and preserve animal hides. Pregnant women ate jojoba seeds, believing they assisted during childbirth. Hunters and raiders munched jojoba on the trail to keep hunger at bay.

This latter use is attracting more attention, today. From experience, Native Americans knew that jojoba seeds suppressed hunger. They simply didn't know why. Modern research has revealed that Jojoba seeds contain simmondsins. Simmondsins are monoglucosides, not found in any other plant species. They act as an appetite suppressant. A number of companies are currently working on ways of isolating the simmondsins for use as a dietary supplement.