Damiana: An Aphrodisiac Plant From the Mexican Desert

By Yoav Bashan and Gina Holguin
As Viagra sweeps the globe, attention is also being given to traditional folk aphrodisiacs. In Mexico, the damiana produced by geologist and herbal healer Ernesto Diaz is famous locally, and is also getting scholarly attention.

Damiana is the most important medicine in Ernesto Diaz’ inventory. He helps whoever needs it, whoever has lost faith in modern medicine and still has trust in herbal medicine, which is still very common in rural Mexico. This is a result of circumstance: The nearest clinic is too far to reach in an emergency, so they naturally depend heavily on traditional Amerindian remedies.

Damiana is definitely not a new remedy. "I got my basic knowledge from the local people living on ranches in remote areas of the desert," admits Diaz. This plant has many traditional medicinal features, but it is best known for its aphrodisiac properties.

"A 74-year-old man came to me with a prostate problem" recalls Ernesto. "So, I gave him a damiana treatment." The prostate problem was gone for good, but the cure had an important fringe benefit: the man started to have a regular sex life with his 28-year-old wife. No, it is not a psychological effect, since the old guy had no idea whatsoever that I gave him damiana. Now, he asks for more," explains Diaz.

Tales like this have been circulating the Baja California deserts for centuries. The now extinct Guaycura Indians of Baja California knew damiana, and used it intensively. It played a part in their religious ceremonies as a sexual stimulant and in their daily life as a common remedy to cure impotence.

The first Europeans to encounter the medicinal properties of damiana were the Spanish missionaries who intensively roamed Baja California in the 16th and 17th centuries. One of them, the Jesuit Juan Maria de Salvatierra, wrote about damiana in his chronicles that were published in 1699. But not until the end of the 19th century was the plant introduced to European knowledge.

Damiana is far from being an impressive plant. In the arid areas of the peninsula, which are dominated by huge columnar cacti and wide-canopied mesquite trees, its humble appearance may belie its importance for the local inhabitants. It is a small shrubby plant that grows in the dry soils of northern Mexico, Baja California and southern Texas. The leaves have a strong aromatic scent, due to the evaporation of its essential oils.

The herbal market of Mexico clearly differentiates between damiana of different origins in the country, and its verdict is loud and clear. "Damiana from southern Baja California is more expensive than that originating from mainland Mexico," says Ernesto. Old scientific accounts even designated the local damiana as a special variety, concentrating on its main feature (var. aphrodisiaca). "Nobody knows why our damiana is the best," continues Ernesto, who is a native of Baja California. "Perhaps the extremely high temperatures or the Baja California soil has something to do with its local quality. It is difficult to know since no research has been done in this respect." Although several substances in damiana leaves have been chemically identified by Mexican and German scientists, no one knows which one is responsible for the aphrodisiac effect.

Preparation is easy: "All you have to do is to prepare a tea. Do not forget not to boil the leaves or the tea will get bitter," instructs Ernesto. "Boil the water first, turn off the heat, add the herb and wait a few minutes. Just drink one or two cups daily." The local ranchers who customarily drink it sweeten it with brown sugar and call it the "hot herb." Naturally, they are not referring to the temperature of the tea. The tea may be drunk cold, but its effect is in no way related to low temperatures.

For centuries, the local liqueur industry mixed damiana extracts into their alcoholic beverages. Many different products exist in the Mexican market. One is even marketed in a shape of a pregnant woman. "It is definitely not a great idea," warns Ernesto. "One may take damiana for curative purposes or to have fun, but not to get boozed. Besides, mixing damiana with alcohol destroys its properties. Tea is better. No question about it."

How long do you have to take it before it begins to take effect? "Men, in general, feel a stronger sexual desire after several days of drinking damiana tea," explains Ernesto.

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Suggestive selling? One brand of damiana liqueur packages the aphrodisiac in bottles shaped like a pregnant woman.
"Damiana can significantly increase the male hormone testosterone." There are no current official medical records that confirm such a claim. However, old medical records from the 19th century and traditional medicine in Mexico and the USA have held that sterility in men caused by low counts of spermatozoa in their seminal fluid can be cured by drinking damiana tea. "A childless couple came to me a few years ago. They had lost any hope of having a kid of their own. Apparently, conventional medicine could not cure the husband, but damiana did," claims Ernesto. It is difficult to contradict this claim when the couple's little boy is running around.

One must be careful, however, of the amount of damiana ingested. Chemical data show that the essential oils of damiana contain at least twenty different compounds. Other parts of the leaves contain even more uncommon compounds. A report from the old scientific literature tells about a man who was poisoned by an overdose of damiana, thus consumers should be careful about dosage when using it.

Damiana leaves are not officially accepted as a medicine in the USA or Mexico. Nevertheless, large amounts of damiana are exported from Baja California to the USA. Apart from its renowned aphrodisiac properties, the leaves are used as raw materials to produce tonics which are considered cures for muscular and nervous breakdowns, and to produce diuretic and bladder washing agents.

"Officially you need a license to cut and sell wild damiana," says Diaz, "but the law is difficult to enforce in the vast empty deserts of Baja California. The plant, although abundant now in some areas, may well go on to the extinction list if the demand for the product increases."

What is the solution? To propagate it commercially before it is too late, says Lilia Alcaraz Melendez, a researcher from the Center for Biological Research (CIB) in La Paz, in Baja California. If it becomes commercially viable, businesses will invest in its sustainable cultivation and use. That sounds simple, but here there is a real difficulty.

Unfortunately, damiana seeds rarely germinate under controlled conditions. Furthermore, vegetative propagation by placing damiana branches into the soil rarely yields a plant. Both methods are therefore impractical. So, how does damiana propagate in nature? "Maybe the conditions for seed germination are very specific and furthermore, they are unknown," says Jose Luis Leon de la Luz, a botanist affiliated with the CIB.

No matter how the plant manages to pass through the eons, its natural proliferation is not sufficient to sustain massive cutting for a hungry market. One tact should be borne in mind: If damiana products are to be used in large quantities, damiana plants should be plentiful. But they are not.

"We thought about this ten years ago when we started the project of damiana propagation," says Lilia Alcaraz Melendez. "We decided on tissue-culture propagation." By painstaking work, she and her team developed a method of micropropagating the plant in order to keep all its chemistry intact and to significantly increase its leaf yield. Then she checked the mature plant for several years under field conditions.

"We actually domesticated an important wild plant," says Melendez. "We created a new crop for semi-arid zones and new opportunities for the farmers to earn a decent income from knowledge they inherited from their ancestors. When fields of damiana are cultivated in Baja California, the incentive to gather the wild plant will diminish, and the natural damiana will not be driven to extinction," she concludes. Thus, Diaz and his fellow herbalists will have plenty of material for their patients.

If domestication alone cannot be considered a good enough deed, future preservation of this important plant species in its natural habitat surely is.