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AMERICAN
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COUNCIL

FILE: ■ Chia (*Salvia hispanica*)

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RE: Chia (*Salvia hispanica*) and Its Long History of Use Reveals Future Potential

Cahill JP. Ethnobotany of chia, *Salvia hispanica* L. (Lamiaceae). *Econ Bot.* November 2003;57(4):604-618.

Chia (*Salvia hispanica*) was a major commodity in the region known as Mesoamerica (Central America and southern Mexico) in pre-Columbian times. The seeds of the plant were used as food, medicine, and oil. Although large areas of agricultural land were devoted to chia cultivation in Mexico, cultivation plummeted after Spanish colonization of the area. This review article addresses the current uses of chia and evaluates ethnobotanical knowledge and domestication.

An extensive literature review identified 105 accounts of ethnobotanical use from sources prior to 1600 CE and 79 accounts from sources after 1600 CE. The sources included 16th century codices, writings of naturalists, ethnographic studies, 120 specimens containing ethnobotanical information, and floras. Information was divided into four usage categories: (1) medicinal, (2) culinary, (3) artistic, and (4) religious/cultural.

Medicinal uses represent the greatest number of accounts both before and after 1600 CE. Infusions of whole chia seeds are believed to enhance the uptake of other medicines. Therefore, chia was a component of many medicinal recipes, and it was not strongly identified with any particular medical condition. The use of chia for treatment of respiratory and obstetric conditions was more prevalent before 1600 than after 1600. The use of chia to treat eye obstructions and infections was much more prevalent after 1600 than before 1600. Seeds accounted for the great majority of medicinal uses in both time periods. The roots of the chia plant were used more often before 1600 CE, primarily for treatment of respiratory infections.

Culinary uses of chia seeds are categorized as whole seeds, seed flour, seed mucilage, and seed oil. Chia was very important in pre-Columbian foods and beverages in Mexico. The seeds were roasted, ground into flour, and incorporated into tortillas, tamales, and beverages. Chia seeds and maize were often processed together. A refreshing drink made with whole chia seeds became very popular after 1600 CE.

Chia had a limited number of artistic uses. The oil was used as a lacquer base for painting clay or gourd vessels and formed the basic component of Aztec body paint. In modern times, the oil is also used in lacquers and paints and as an emollient in cosmetics.

Few, if any, purely religious uses existed for chia. Most religious uses were intertwined with other uses. Examples include the body paint of the Aztec deities and the use of chia beverages during religious ceremonies. There are few modern accounts of religious and cultural use, and the rich diversity of Aztec religious and cultural associations with chia have mostly slipped away.

More than 200 herbarium specimens were examined and 18 wild populations of chia were identified. The author visited several communities in Guatemala and Mexico to collect specimens and interview residents. The primary uses of wild types varied significantly among populations and cultures. In several communities, none of the residents interviewed could name the chia plant and none collected the seeds for any use. However, residents of the Nayarit region of Mexico described the preparation of an *atole* beverage made from maize and chia flour. This beverage is consumed during the *Mitote* festival held in late November or early December. In this region, mixtures of whole or ground chia seeds and water are used medicinally to treat stomach ailments and diarrhea. In contrast, residents of communities in Michoacan, Mexico described the use of seeds to help remove obstructions of the eye but they could not describe any food uses for the plant.

The author concludes that the general use of cultivated varieties of chia has not changed significantly over time. While chia remains primarily a medicinal seed plant, religious and cultural uses of chia flour survive in some communities in Mexico. The general decline in ethnobotanical knowledge, associated with wild populations and coupled with loss of habitat in some locations, has degraded important resources for a species with great economic potential. Chia is a favorite beverage in Tucson, AZ and other places where one can buy the packaged seeds.

—*Heather S. Oliff, Ph.D.*

The American Botanical Council has chosen not to reprint the original article.

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