



Dried, ripe fruits of the wild chile (*Capsicum annuum* var.

WILD CHILE

Capsicum annuum var. *glabriusculum*

Spanish: *chiltepin*, *chiltipiquin*, *piquin*, *tepin*

O’odham: *a’al kokoli*

The small, fiery pepper called chiltepin is a perfect addition to your desert garden. Eat this wild chile raw, dried, pickled, green, or ripe and enjoy a powerfully spicy punch that will make your taste buds dance. Chiltepin ranks a whopping 50,000 to 100,000 units on the Scoville heat scale—hotter than tabasco and cayenne peppers! Chiltepin thrives in the canyons and mountains of southern Arizona and northwestern Mexico. In your garden, wild chile bushes grow best in the shade of trees and large shrubs. Plants are perennial, growing up to four feet tall. Share the chiles with the local wildlife and enjoy the birds that come to your garden to dine on the ripe fruits, impervious to their heat.

Origin and History

Chiltepin is native to North America and reaches its northern range limit in the southwestern US. People throughout Central America and Mexico have long used the wild plants as food and medicine and domesticated the first plants 6,000 to 7,000 years ago. In fact, the chiltepin is the wild ancestor to modern day domesticated peppers, earning the title “mother of all peppers.” Today, wild chiltepin remains an important economic crop in Sonora and is popular in southwestern US and northern Mexican cuisine.

In the mountains of the US-Mexico borderlands, wild chiltepin plants grow under the cover of nurse trees and shrubs like mesquite, ironwood, and hackberry. These nurse plants protect the chile plant. Their shade creates a moist growing environment during the summer and protects from frost and freeze damage during the winter. The ripe fruits of the wild chile are a staple for birds who help spread the seeds. As birds perch in the branches of nurse plants, they deposit chile seeds in their droppings to the ground below—exactly where the wild chile plants grow best.

Recently, the wild chile has sparked interest among scientists concerned about climate change. As droughts and warming temperatures make it more difficult to grow some domesticated crops, scientists and farmers are looking to the hardy, wild ancestors, like the chiltepin, for clues on how to adapt crops to better withstand climate change.



Northern limit of the chiltepin’s native range in the Tumacacori Mountains, Arizona. Credit: EC Riordan.

From Garden to Plate

Growing and Harvesting Wild Chile

- Plants are best grown from starts, buy from local nurseries.
- If growing from [seed](#), try soaking overnight in vinegar or lemon juice to improve water absorption and germination.
- Chiltepin is sensitive to summer heat and winter frosts. Plant in the shade of trees or shrubs.
- In the wild, chiles ripen in the fall (September – October).
- Unripe, green chiles can be pickled in vinegar with garlic and oregano and enjoyed as a condiment.
- Harvest, dry, and grind ripe chiles to use in salsas, soups, or any meal to add heat. Also try adding chilitopin to beverages and desserts!



Chiltepins and hand-carved wooden pepper grinder. Credit: EC Riordan.

!CAUTION! Be careful when harvesting and handling wild chiles. Their spicy oils can irritate the skin and respiratory system. Wash hands and/or wear gloves and avoid contact with your eyes.

Good for Your Health

- High in vitamins A and C
- Causes the brain to release endorphins which act as natural painkillers
- Capsaicin, the compound responsible for the chile's heat, has antimicrobial properties
- Capsaicin also triggers a response called 'apoptosis' in humans that helps cells self-destruct, which may help in fighting cancers

Good for the Planet

- Fruits are a food source for birds and flowers support native pollinators
- Modest water requirement when grown in the shade of nurse plants
- Roots stabilize soil, improving rainwater infiltration and soil retention
- Natural immunity against plant diseases caused by microorganisms (viruses, bacteria, fungi) can help stop or reduce diseases, such as root knot, in an area

Learn More

- Cultivation and harvest tips: [Mother Chiltepin](#) by Linda McKittrick, *Seedhead News* issue 104.
- Importance of conserving of the wild chile: [What can the wild chile teach us about conserving crop wild relatives?](#) *Sustainable, Secure Food Blog*, September 22nd 2020.
- Recipe inspiration, including chiltepin flan: *Eat Mesquite and More* by [Desert Harvesters](#).

