# Edible California Native Plants Part Two

"All of us eat because of the generosity of a seed." Rowen White "Sustain the ones who sustain you and the earth will last forever." Barbara Drake

Cultivation, Preparation & Tasting SLOLA

Aug 6, 2022 10am

Krystal Rains & Joe Parker kalypsokrystal@gmail.com
joe\_parker@pitzer.edu

### Land Acknowledgement: Gabrieleno/Tongva People

 We acknowledge the Gabrielino/Tongva peoples as the traditional land caretakers of Tovaangar (Los Angeles basin, So. Channel Islands).

 We acknowledge our presence on the traditional, ancestral and unceded territory of the Gabrielino/Tongva peoples near the village site of Hahamongna

## Indigenous Peoples of Southern California

- Greater Los Angeles Area: Chumash, Tataviam, Tongva, Serrano, Cahuilla, Acjachemen, Luise~no.
- Chia Café Collective—members Barbara Drake & Craig Torres & Abe Sanchez were 4-28-19 SLOLA speakers on sustainability and resilience.
- Our Teachers' Teachers: Narcisa Rosemyre (Rose) Higuera (Tongva), Cecelia Garcia (Chumash), Barbara Drake (Tongva), Craig Torres (Tongva), Abe Sanchez, Daniel McCarthy, Antonio Sanchez
- Ongoing Classes: Idyllwild Summer Arts (Chia Cafe Collective); UC Riverside Extension—Lorene Sisquoc; James Adams.

## Traditional Ecological Knowledge (TEK)

- Traditional Ecological Knowledge (TEK) of Indigenous communities was transmitted orally from elders to young people. TEK taught community members how to respect the plants and animals important in their lives and how to care for plants and live together with them sustainably for the long term.
- TEK asks us to care for the plants that care for us:
  - -Observe plants and listen to what they tell us;
  - –Sing to plants at appropriate times;
  - Ask plants permission before harvesting;
  - –Give to plant before you take;
  - –Never take more than half;
  - -Show gratitude to plants for their gifts.

Craig Torres is source for TEK info; Plant protocols from Barbara Drake.

# Plant, don't forage! (Unless you forage in your own yard!)

Please use this information to add to your own yard, in the garden or in pots. Please do not wildcraft/forage these plants for usage.

There has been significant overharvesting by wildcrafting/foraging in our densely populated urban area, and it is not sustainable.

By adding these plants to our yards, gardens, porches, patios and balconies, we help create a more sustainable environment for ourselves, our communities and local ecosystem.

## Planting from seeds with California Natives

This is a "seed" library presentation, so we wanted to address propagating California Native Plants.

Most can be grown from seed, but many take longer than average and often requires some scarification or soaking in water. Others will self-seed or provide lots of seeds like nettle and cleome/bladderpod.

Some Native Plants, like Yerba Santa and Hummingbird sage are rhizomes, so they spead underground and are best divided.

Most nurseries and gardens propagate from cuttings. One of the problems with this type of propagation is it reduces the gene pool or perpetuates disease. My recommendation is to source plants from different native nurseries and neighborhood gardens to reduce the problem.

No amendments/fertilizers, native plants have adapted to our local soil conditions that are very low in nitrogen. In your garden, you will want areas rich in nitrogen for some of your garden, and not where you plant your natives.

Mulch can be used for ground cover for soil health, but don't use close to the roots that are often exposed in native plants.

Slow deep watering to establish for at least the first year before drought tolerance is reached. Drought tolerance differs between species.

Many references are available at the end of this presentation.

## Direct Substitutes: Easy to Grow & Easy to Prepare

- California Bay Laurel
- Black Sage
- Chia
- Red-Skinned Onion (Allium haematochiton)

## California Bay Laurel (*Umbellularia californica*)

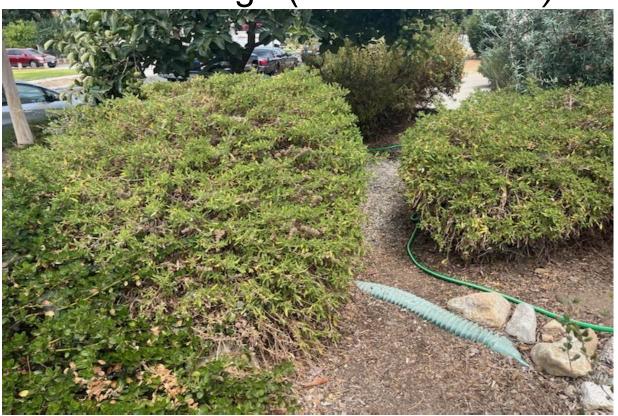
Tasting Menu Item-To Take Home



May be grown as understory tree or in large pot; bay nuts are roasted.

Black Sage (Salvia melifera)

Tasting Menu Item.



Black sage as food mixes well with basil and arugula; as women's plant also important cultural uses.

## Chia (Salvia columbariae)

Note: most chia available in stores is grown in Argentina.



Chia is very high in protein

Can be eaten alone or mixed with water.

Can make a drink or pudding

Source: Healing with Medicinal Plants of the West, Garcia/Adams

#### Red Skinned Onion (Allium haematochiton)

The most common allium in Southern California, found in canyons and grassy areas and is a fire following plant.

Traditionally eaten raw or baked.

The juice can also be used as an insect repellant and made into a syrup for colds & sore throat. Eating the bulbs can also help with gas and to stimulate the appetite.



Healing with Medicinal Plants of the West, Garcia/Adams



### California Native Plant Teas

Tasting Menu Item.

Hummingbird Sage rocks, especially when added to Yerba Santa!!!

Easy recipe, tasty warm or cold!

1 Hummingbird Sage leaf & 3 Yerba Santa Leaves, infused in hot water!

Mugwort for menstrual issues

1 leaves infused in hot water, drunk first 3 days of cycle.

Source: Healing with Medicinal Plants of the West, Garcia/Adams

## Easy to Grow and Prepare

A Few New Easy Kitchen Skills:

Nevin Barberry

Tepary Beans

## Nevin Berberis (cross with Berberis Aquifolium)

Nevin's Barberry is a California Native plant that Krystal planted for the roots in herbal medicine. In creating the Feb presentation, I learned that the red berries are edible and they are delicious. There are plenty to share with the birds!

Berberis varieties are used medicinally for their roots, which are anti-viral, antimicrobial and antifungal.

Berries best eaten fresh.

Many varieties grown at California Botanic Garden; one new variety that is seedless with great flavor may be publicly available soon;; Antonio Sanchez, CBG, 3-13-21.

## Nevin's Barberry

Nevin's Barberry in Feb & ripened in July in Krystal's yard





## Tepary Bean Salad Recipe

Tasting Menu Item

Source: Cooking the Native Way by Chia Cafe Collective





by Lorene Sisquoc

#### **INGREDIENTS**

1 C dry white tepary beans

D+P (pg 61)

C dry brown tepary beans

SP (pg 104) D+P (pg 61)

- 4 fresh, non-GMO ears of corn (or 2 cups frozen or canned corn)
- C onion, chopped
- 3 garlic cloves (or to taste), chopped fine
- 2 T olive oil (or other healthy oil)
- 1 C cactus pads, cooked and chopped

SP (pg 96) D+P (pg 59)

- ½ C black beans, cooked or canned
- ½ C kidney beans, cooked or canned
- ½ C pinto beans, cooked or canned



salt and pepper

I was introduced to tepary beans years ago through the *Tohono O'odham* people. I love them. I even grew some in my front yard. I like to use them because they're one of the traditional beans that is still used today. They're a great diabetic food, high in fiber. I remember that [the late *Cahuilla* elder] Alvino Siva said we had our own traditional beans here in California. He even described what they looked like. He said you could sometimes find them in the wild, but I've never seen them.

#### PREPARATION

If using fresh corn: Remove kernels from the cob. Stir-fry onions in olive oil about 3 or 4 minutes until translucent. Add garlic and fresh corn. Cook until corn is soft. Chop cooked nopales into small cubes and add. Stir until mixture is heated.

If using frozen or canned corn: Stir-fry onions in olive oil about 3 or 4 minutes until translucent. Add garlic. Stir-fry for another 1 or 2 minutes. Then add the corn and cooked nopales. Stir until mixture is heated.

In a large bowl, mix the tepary, black, kidney, and pinto beans. Then add the stir-fried onions, garlic, corn, and cooked and chopped *nopales* (cactus pads). Toss together using the olive oil they cooked in as the dressing. Season with salt and pepper to taste.

Yields 6 cups (6 to 12 servings).

## Native Trees with Edible Nuts, Seed Pods, & Fruit (for large-scale food production)

- Honey Mesquite
- Velvet Mesquite
- Screwbean Mesquite
- Elderberry

## Types of Mesquite

Honey Mesquite: Cahuilla Staple Food (*Prosopis glandulosa & var. torreyana*)

Tasting Menue Item

- Velvet Mesquite (Prosopis velutina)
- Screwbean Mesquite (Prosopis pubescens)

## Mesquite Pods



Pods are ground for food and hard seeds discarded; Cahuilla named months after mesquite seasons. High protein content of 30-40% and source of calcium, magnesium, dietary fiber, iron, and zinc.

#### Screwbean Mesquite (*Prosopis pubescens*)



Pods must be ripened after harvest and ground; may be soaked as a drink like pinole or as porridge

## Elderberry Syrup (basic recipe)

3 Tablespoons of dried elderberries ½ tablespoon of dried ginger 2 cups of water

Tasting Menu Item

Simmer for 1-3 hours. (I used a small "dip" crockpot overnight) Strain plant material (and mulch it) & put liquid back in pot.

Add a small amount (about 3 slices) of fresh ginger and simmer for 30 min or so. Strain into glass measuring cup, note amount (generally about 1 3/4 cups) and add equal parts raw honey to hot liquid. Stir to dissolve.

Use as a preventative, a tablespoon once a day, or when infected with a flu like virus, take a dose 2-3 times a day.

We have research on Influenza including H1N1, but do not have research on efficacy with Covid-19. It has been shown to reduce symptoms by approximately  $\frac{1}{2}$ , so instead of being sick a week, it will be 3-4 days.

When using fresh berries, you should process the liquid and strain before adding the dried, then simmer to reduce, strain and add fresh ginger and simmer a bit more.

### **New Tastes**

YuccaStalksBlossomsSeed Pods (green)Seeds

- Agave
- Grass Seeds and Other Seeds

## Chaparral Yucca (Hesperoyucca whipplei)

#### Yucca food uses:

Young Stalk—as plant life cycle ends Yucca sends up a stalk; harvest before gets too tall;

Blossoms—after rinsing in hot water 2-3 times may be added to dishes or pickled to preserve;

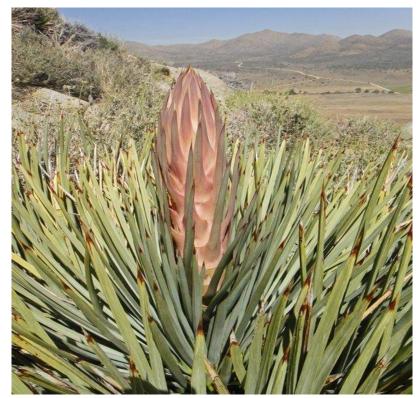
Seed pods-harvested while green; may also be pickled;

Seeds-harvested after pods burst open; seeds ground into flour.

Yucca has many other uses from leaves (cordage) to root (soap & shampoo).

Source for info: Barbara Drake and Craig Torres, Tongva cultural knowledge carriers.

## Yucca Stalk (young-less than 3 feet)

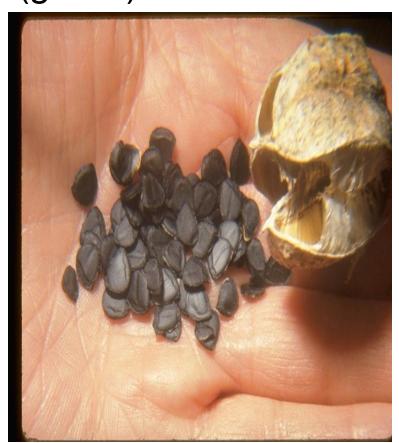


## Yucca blossoms

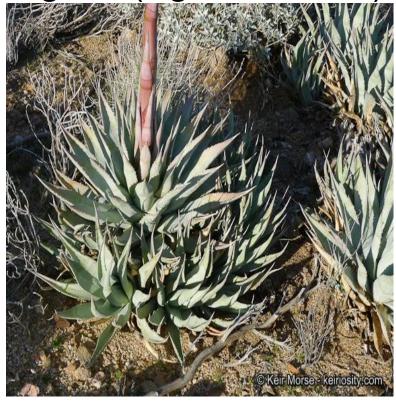


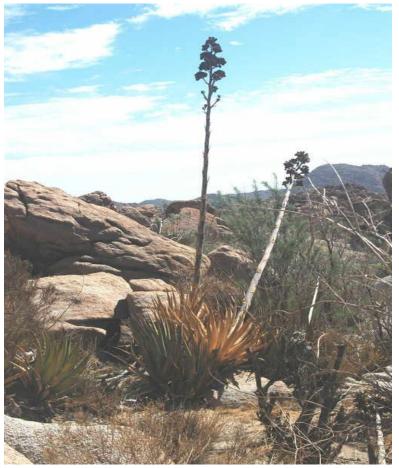
## Yucca Seedpods (green) & Seeds





Agave (Agave deserti)





Stalk comes out only once (at end of life cycle–20-40 years) and are harvested, so requires patience.

### Seeds and Grasses

In addition to seeds of oaks and walnut trees, pinyon pines and sugar pines, seeds from many grasses were gathered and ground up and added to acorn porridge for flavor and nutrition. Seeds gathered from plants and grasses made up a substantial portion of the California Indigenous diets. Cultural burning was part of the collection and sowing practice, as we now understand that many of the seeds require fire before they will propagate.

Calandrinia cilata, Red Maids

Eriogonum fasciculatum, California Buckwheat

Helianthus gracilentus, Slender Sunflower

Iris missouriensis, Western Blue Flag

Leptosyne bigelovii, Tickseed

And many varieties of lupine and of other grasses

Gratitude to Mark Acuna for some of this information; see also Kat Anderson, *Tending the Wild, 243-44.* 

## Feb SLOLA Tasting Menu

Fresh Berries

**Nevin Barberry** 

Dips/Sauces

Black Sage Pesto

Protein

Mesquite Crackers

Tepary Bean Salad

**Sweets** 

Elderberry Syrup

Beverages

Hummingbird Sage & Yerba Santa Tea

## Prep Before Plant

Before planting California native plants, learn what conditions are most suitable for specific species and varieties and choose best plant for your garden:

Soil types: sandy soils? clay soils? adaptable?

Sun exposure: full sun inland? partial shade? full shade?

Climate: inland conditions ok? need coastal moisture?

Water: require summer water? tolerate regular water?

Size and spacing: how large is mature plant?

For plant info see Theodore Payne Nursery database:

https://theodorepayne.org/nativeplantdatabase/index.php?title=Main Page

Or Calscape.org

## Low Water & Higher Heat Gardening Resources

### Sonora/Colorado Desert Plant Varieties:

Mesquite; Yucca; Tepary Beans; etc.

### Ollas and Other Cahuilla Indigenous Practices

Katherine Siva Saubel and Lowell John Bean, *Temalpakh: Cahuilla Indian Knowledge and Usage of Plants*. Malki Museum Press, 1972.

#### • Other Resources:

David Bainbridge, *Gardening With Less Water: Low-Tech, Low-Cost Techniques*, 2015 Gary Nabhan, *Growing Food in a Hotter, Drier Land: Lessons from Desert Farmers on Adapting to Climate Uncertainty*, 2013

Wendy Hodgson, *Food Plants of the Sonoran Desert*, 2001 Desert Harvesters, Eat Mesquite:

## Cahuilla Ollas



## Homemade Ollas



# Online California Native Edible Plant Information

- PBS/Autry Museum videos, *Tending the Wild* (https://www.kcet.org/shows/tending-the-wild)
- Grow Your Own Chia (PBS/Autry)
- Jepson Herbarium youtube channel: <a href="https://www.youtube.com/watch?v=Axx6yQFPobY">https://www.youtube.com/watch?v=Axx6yQFPobY</a> & other videos
  - https://mysocalgarden.com/posts/edible-california-native-plants

## **Edible Native Plant Websites**

California Native Plant Society (CNPS)

https://www.cnps.org/gardening/garden-ga-edible-native-plants-for-the-home-garden-12580

Calscape.org (specific edible plant list)

https://calscape.org/plantlist/6451

Native Seeds Search <a href="https://www.nativeseeds.org/">https://www.nativeseeds.org/</a>

Larner seeds (California Cuisine Seeds)

https://larnerseeds.com/products/the-california-cuisine-seed-collection

Theodore Payne edible native plants list <a href="https://www.theodorepayne.org/poppyprint/06-3.pdf">https://www.theodorepayne.org/poppyprint/06-3.pdf</a>

Medicinal Plant Walk with James Adams (Facebook video)
<a href="https://www.facebook.com/watch/live/?ref=watch">https://www.facebook.com/watch/live/?ref=watch</a> permalink&v=601274107462184

## California Native Plant TEK Indigenous Knowledge Resources

Healing with Medicinal Plants of the West, Cecilia Garcia/James D. Adams Jr.

Katherine Siva Saubel and Lowell John Bean, *Temalpakh: Cahuilla Indian Knowledge and Usage of Plants*. Malki Museum Press, 1972.

Michael Wilken-Roberton, *Kumeyaay Ethnobotany: Shared Heritage of the Californias*. Sunbelt Publications, Inc., 2018.

Jan Timbrook, *Chumash Ethnobotany: Plant Knowledge Among the Chumash People of Southern California*. Heyday Books and Santa Barbara Museum of Natural History, 2007.

## Cookbooks

- Cooking the Native Way, Chia Café Collective, Heyday Books.
- Seaweed, Salmon, and Manzanita Cider: A California Indian Feast, Margaret Dubin and Sara-Larus Tolley, Heyday Books, 2008.
- The Real California Cuisine: Cooking from the Wild Food Garden, Judith Larner Lowry, rev. ed., 2020.
- The Prickly Pear Cookbook, Carolyn Niethammer, 2004.
- Eat Mesquite and More, Desert Harvesters, 2018.
- The New Wildcrafted Cuisine, Pascal Baudar.
- Wild Remedies, Rosalee De La Foret, Emily Han 2020.
- Ugly Little Greens, Mia Wasilevich, 2017.

# California Native Plant Cooking Ingredients

Elderberry/elderflowers: dragonmarsh.com

Stinging nettle: mountainroseherbs.com

(available at nearby gardens where often volunteers)

Prickly Pear Nectar: arizonacactusranch.com/

Tepary beans: : sanxaviercoop.org; nativeseeds.org

Mesquite flour: sanxaviercoop.org; nativeseeds.org

Acorn flour: www.buyacornflour.com

Internet sources for CA native plants are not always what they seem—many websites offer species that are not native to California (tuna cactus pads, chia, acorn flour, currants, elderberries, etc.)

## Other Resources

- <a href="https://www.facebook.com/ChiaCafeCollective/">https://www.facebook.com/ChiaCafeCollective/</a> Idyllwild Summer Arts courses & UCR Extension
- <a href="http://haramokngna.org/">http://haramokngna.org/</a> Offers workshops for general public and Indigenous communities
- https://idyllwildarts.org/summer/ (Chia Cafe Collective classes)
- James Adams offers classes & videos (find by googling)
- PBS/Autry Museum video series, Tending the Wild (weblink)
- Grow Your Own Chia (PBS/Autry)
- https://deborahsmall.wordpress.com/
- https://www.ediblesandiego.com/articles/cooking-with-kumeyaay-preserving-native-foods
- Seed Propogation of Native California Plants, Dara Emery, Santa Barbara Botanic Garden, 1988.
- Saving Seeds in the Southwest; Techniques for Seed Stewardship in Aridlands, by Joy Hought & Melissa Kruse-Peeples

## California Native Plant SoCal Nurseries and Seed Sources

The California Botanic Garden, Claremont (formerly Rancho Santa Ana Botanical Garden)

Theodore Payne Nursery, Sun Valley

Hahamonga Nursery, Arroyo Seco, Pasadena

Matilija Nursery, Moorpark

Tree of Life nursery, Orange County