

STOP!

Please do NOT collect or eat plants in the Garden. This is a scientifically documented living collection of plants- many of which are rare and endangered.



1. **Japanese Prickly Ash** (*Zanthoxylum ailanthoides*)
2. **Hardy Kiwi** (*Actinidia arguta*)
3. **Chinese Chestnut** (*Castanea mollissima*)
4. **Siberian Crabapple** (*Malus baccata*)
5. **Japanese Raisin Tree** (*Hovenia dulcis*)
6. **Ussurian Pear** (*Pyrus ussuriensis*)
7. **Date Plum** (*Diospyros lotus* var. *lotus*)

8. **Orange Daylily** (*Hemerocallis fulva* var. *angustifolia*)
9. **Emperor Oak** (*Quercus dentata*)
10. **Ginkgo** (*Ginkgo biloba*)
11. **Indian Barberry** (*Berberis lycium*)
12. **Mongolian Mulberry** (*Morus mongolica*)
13. **Fish Mint** (*Houttuynia cordata*)
14. **Tea Plant** (*Camellia sinensis*)
15. **Crimson Glory Vine** (*Vitis coignetiae*)
16. **Chinese Mahogany** (*Toona sinensis*)
17. **Korean Pine** (*Pinus koraiensis*)
18. **Chinese Timber Bamboo** (*Phyllostachys vivax*)

Sonoma

BOTANICAL GARDEN

THE EVOLUTION OF FOOD

Human Intervention in Plant
Selection & Cultivation
Self-Guided Tour

BY CHANCE OR DESIGN, it's no longer the same plant

The plant foods we eat are the result of thousands of decisions made throughout human history. Plants in cultivation often have traits very different from their wild relatives due to human intervention. Sometimes it's as simple as picking a tree with the largest, juiciest fruits over generations and then planting their seeds; other times it's cross-breeding similar species that would've never come in contact in the wild to create a hybrid; if the species are similar enough, one plant can even be grafted to another that may be more tolerant of soil conditions or resistant to diseases.

Sometimes these choices lead to success, other times failure. It is critical to preserve the greatest variety of plant species and the genetic diversity within those species not only to protect them and their ecosystems, but also to preserve our capacity to produce food in a changing environment and warming climate.

The Garden is full of plants with wild genetics that may hold the key to the future of food security and sustainability.

1. Japanese Prickly Ash DIRECT *Zanthoxylum ailanthoides*

Piquant fruit is a local substitute for red pepper in China. Young leaves are eaten in Taiwan.

2. Hardy Kiwi DIRECT *Actinidia arguta*

Grape size hairless kiwi fruits widely eaten. Commercial production has been unsuccessful due to a short shelf life. Young, dried leaves are rehydrated and eaten in Korea.

3. Chinese Chestnut DIRECT *Castanea mollissima* BRED

Resistant to chestnut blight and considered the best tasting chestnut. There are over 20 cultivars in cultivation.

4. Siberian Crabapple DIRECT *Malus baccata* BRED

Fruit can be eaten fresh or dried. Also used in breeding due to high pest and cold resistance.

5. Japanese Raisin Tree DIRECT *Hovenia dulcis*

Swollen stalk of the fruit (not the fruit itself) is eat fresh or dried. Extract from seeds, boughs, and leaves is used as a substitute for honey in wine and candy.

6. Ussurian Pear BRED *Pyrus ussuriensis*

Most cold hardy of all pears, but the fruits are only edible after they're frozen. Usually hybridized with other pears.

7. Date Plum DIRECT *Diospyros lotus* var. *lotus* ROOTSTOCK

Small fruits taste like plums and dates. One of the oldest plants in cultivation. Primary rootstock for Fuyu Persimmons because its resistant to soil-borne diseases.

8. Orange Daylily DIRECT *Hemerocallis fulva* var. *angustifolia*

Flowers, leaves, and tubers are edible. "Golden needles" are dried flower buds used for woody flavor and scent.

9. Emperor Oak DIRECT *Quercus dentata*

In Korea, acorns ground to make a powdered starch used to make a savory jelly eaten with vegetables.

10. Ginkgo DIRECT *Ginkgo biloba*

Nuts eaten in Japan and China in a variety of dishes. Seeds contain toxins so should be eaten in moderation.

11. Indian Barberry DIRECT *Berberis lycium*

Small fruits eaten fresh, dried, juiced or in preserves.

12. Mongolian Mulberry DIRECT *Morus mongolica*

Fruits taste somewhat like boysenberry.

13. Fish Mint DIRECT *Houttuynia cordata*

Eaten as leaf vegetable with a fishy taste. Roots have a peppery spicy flavor.

14. Tea Plant DIRECT *Camellia sinensis*

Source of black, green, white, yellow, oolong, and pu-erh teas. Oxidation levels determine the type of tea.

15. Crimson Glory Vine DIRECT *Vitis coignetiae*

Fruit used to make wine in Korea and Japan. It is very sour, so sugar must be added.

16. Chinese Mahogany DIRECT *Toona sinensis*

Young leaves have an onion/garlic flavor, but taste like beef to some. Eaten in stir fries and preserved by pickling.

17. Korean Pine DIRECT *Pinus koraiensis*

Source of most common commercially sold pine nuts.

18. Chinese Timber Bamboo DIRECT *Phyllostachys vivax*

Young shoots are eaten raw or cooked.

DIRECT Humans eat this as a direct food source.

ROOTSTOCK Crops are grafted to this plant's roots.

BRED Used to hybridize with other food plants.