

# Tahoe Fruit & Vegetable Workshop Series

## SPRING PLANTING OF ASPARAGUS

### Making Asparagus a part of your Edible Landscape



Co-operative Extension Tahoe Basin Master Gardeners

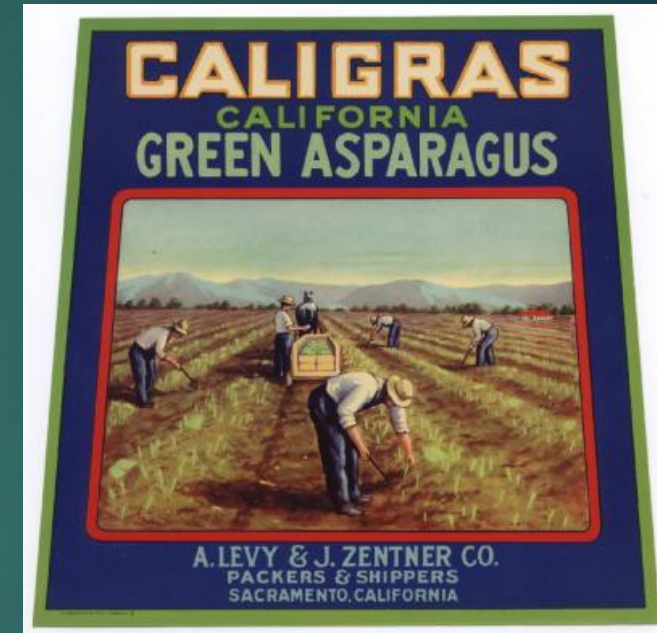
**University of California**  
Agriculture and Natural Resources

# Tahoe Fruit & Vegetable Workshop Series

## SPRING PLANTING OF ASPARAGUS

### Topics covered:

1. Project overview
2. Phenology
3. Taxonomy and anatomy
4. Planting and care
5. History and culinary aspects
6. Varieties being evaluated
7. Distribution of plant materials



California produces about 50%  
of the US production

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### Why Me?

Master Gardeners are community members who have been trained under the direction of the University of California (Davis) Cooperative Extension. **50 hours of formal classroom training**

We assist the UC Cooperative Extension by providing practical, scientific gardening information to the home gardeners in the Lake Tahoe Basin.

**The Lake Tahoe Master Gardeners offer research-based information by:**

Answering questions via email hotlines, farmers markets and at community events.

Offering workshops and classes

Co-operative Extension Tahoe Basin Master Gardeners



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Work with Community Gardens

Work with School Gardens



Do workshops

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Answer Basic  
Gardening  
questions at  
Farmers' Markets

Most common  
answer to any  
question:  
It depends



Plant Sales

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### Phenology

Phenology looks at growth and development differences between plant varieties that are due to weather and climate.

**Varietal Comparative Phenology (VCP) looks at growth and development differences between plant varieties that are due to weather and climate**

Merriam-Webster on-line Dictionary



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### Why Asparagus in My Garden?

Interesting looking plant - long lived perennial Can be part of edible landscape

One of the earliest plants to harvest from a Tahoe/Truckee garden

Fresh asparagus more tender and flavorful than store bought

(Conversion of sugars to lignins less advanced when freshly cut)

Excellent source of fiber, Very high in vitamin K, B, C and E and Folate

Low calories *(values affected by cooking time and method)*

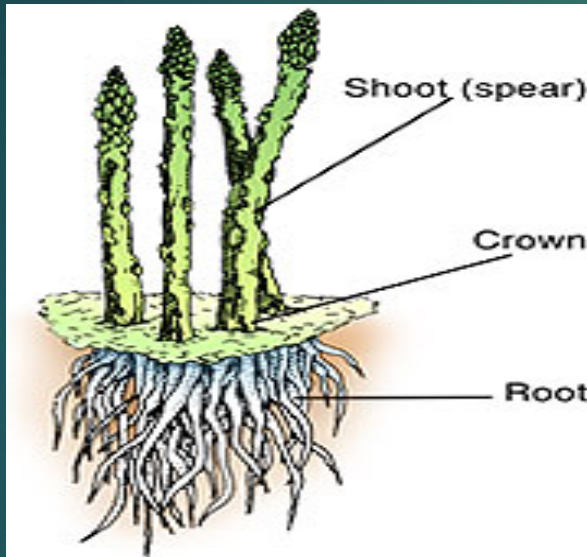


Image – Simply Recipes

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### Anatomy of Asparagus Plant



University of Missouri  
Extension Image



Grow-eat-it blog photo



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Jersey Supreme  
Burpee Photo

Asparagus, is a low maintenance (after getting established) perennial that can provide a delicious seasonal treat from the garden for 10 -15 years! If you do consider adding this interesting plant to your garden, select the site as carefully as you would for a tree, since once established the root crowns will send up edible shoots, or when not harvested, fern like fronds for years.

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### The Basics for Site Selection

Select site very carefully as plants may produce for a decade or more.

Lots of sunlight

Sandy, light textured soils

Moist, well drained soil

Good moisture holding capacity

pH of soil 6.5 – 7.5 (a bit high for Tahoe/Truckee)

Area Free of weeds.

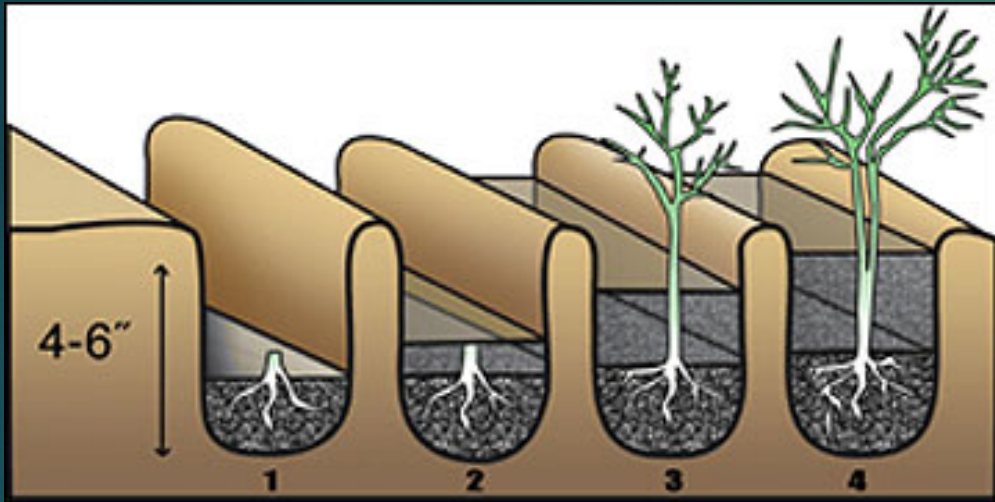


Simply Recipe image

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### Planting Asparagus Crowns



Town and Country Gardens image

Crowns spaced 12- 18 inches on center  
Purple varieties more closely spaced

Trench or planting hole 6-10 inches in depth

Amend planting hole with phosphorus containing  
fertilizer - Bone meal

Spread roots in hole

Cover with 3-4 inches soil

Fill in hole as plant emerges

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### Care, Maintenance and Harvesting

Keep weeds out of the asparagus bed

Fertilize each spring (about 2 pounds 10-10-10 per 100 sq. ft.) as new growth emerges

In fall lightly side dress with compost or manure

Remove all stems, shoots and berries after first hard freeze

No harvest 1<sup>st</sup> year

A single taste 2<sup>nd</sup> year

Light harvest 3<sup>rd</sup> year

Normal harvest thereafter (until shoot are pencil size diameters)

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### Diseases and pests

Asparagus grown in the Tahoe/Truckee area relatively free from most pests, and when watered properly asparagus is usually disease free.

Aphids can be a problem on the fern-like fronds as can grasshoppers and occasionally the asparagus beetle. Control by encouraging predators or hand removal is effective as is field sanitation to minimize over wintering populations.

Avoid over watering or inconsistent watering regimes to prevent disease initiation. The selected cultivars are resistant to most common diseases.

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Clemson University Photo

### Asparagus Beetles

Other insect pests of asparagus can be cutworms, grasshoppers and aphids (foliage).



University of Minnesota  
Extension Photo

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### Asparagus Trivia



Burpee Image

Native to the Mediterranean region

First record as food from Egypt ~ 3000 BC

Domesticated as a specific crop ~ Macedonia 200 BC

Once in the Lily family, botanically now in the Asparagaceae family that includes asparagus ferns and lace ferns

The word asparagus is Latin but taken from the Greek aspharagos (throat)

Corrupted versions of asparagus are used regionally including: sperach, sperage, sparagus and sparrowgrass

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### Did you know

An asparagus farm is referred to as a plantation

California produces about 50% of US asparagus

Michigan and Washington are 2<sup>nd</sup> and 3<sup>rd</sup> in production

Only Florida and Mississippi did not grow  
asparagus commercially in 2007

China grows 6x more than the next 9 countries combined

White asparagus is regular asparagus prevented from  
getting sunlight





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Both Greeks and Romans would freeze or dry asparagus for later use on feast days. Augustus had a fleet of ships built specifically for the transport of asparagus to Rome from different parts of the empire.

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Lincoln Cathedral, England

Asparagus has a long and storied history as an aphrodisiac. It did not help that a common held view under the Doctrine of Signatures was that asparagus improved a man's "vigor", while ladies who ate too much asparagus could succumb to advances.



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Madame Pompadour was the official mistress of Louis XV

White asparagus with béarnaise sauce



Points d' amore

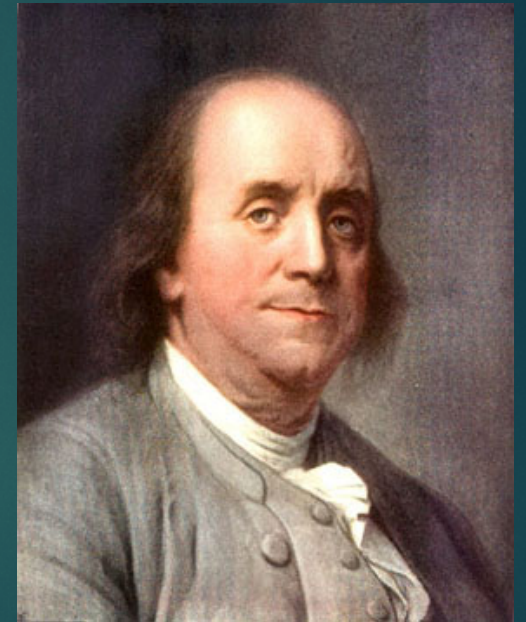
Asparagus a la Pompadour  
A specialty dish around 1750

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Both Jefferson and Franklin became acquainted with asparagus while in France, and indulged the delicacy.



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**Jefferson** had asparagus plants shipped to Monticello where we grew it for many years. One of his favorite dishes was asparagus on toast with melted butter.

**Franklin** proposed to the French Academy of Science of the need to “cure” the cause of the odorous urine after eating asparagus (also ways to generally inhibit flatulence)



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Purple Passion  
Nourse Farms Photo

Asparagus production languished in the United States until the late 1860s when production, especially in New Jersey and Delaware grew rapidly

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One of the newest asparagus release from Rutgers University. Supreme has very high yields. The spear size is more uniform than the other Jersey hybrids. Supreme is quite early, cold tolerant and is adaptable cool climates. This hybrid is best suited to light to medium sandy soils. Supreme has demonstrated very good rust resistance and selected for its tolerance to fusarium.

*Nourse Farms*

Jersey Supreme  
Johnny's Selected Seeds Photo

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Professor Howard Ellison of the Rutgers University asparagus breeding project is credited with finding the first fertile hermaphroditic asparagus plant in the 1960's.

The Hermaphrodite was first cloned then self pollinated to produce a "super male plant, whose offspring are always male!



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Pacific Purple  
Nourse Farms Photo

Pacific Purple is an F1 hybrid but not an all-male cultivar. Development in New Zealand by Dr. Peter Falloon and his wife Linda from their company. Park Seeds however states that the variety is of English origin. The cultivar retains the majority of its color after cooking and has a slightly higher sugar content and lower fiber content than many asparagus varieties. The spears are larger in diameter than similarly aged plants, which permits plantings to be more crowded than other varieties. The sugar/fiber combination also makes this an attractive variety for growing white asparagus.

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Aspara Pacific Photo

Peter Falloon, Managing Director of Aspara Pacific, New Zealand's premier breeder of asparagus and potatoes in New Zealand. Dr. Falloon is the developer of Pacific Purple asparagus. Linda Falloon manages the facility's tissue culture operation



Aspara Pacific Photo

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Millennium  
Nourse Farms Photo

Guelph Millennium (root crown) An all-male hybrid that was developed by the University of Guelph in Ontario Canada. Selection of progeny were for cold tolerance and disease resistance. One unintended consequence has been good production rates over a wide range of soil types. Released as the name implies around 2000 it has become the go to cultivar in much of Canada and colder northern portions of the United States.

*Nourse Farms*

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University of Guelph photo

David Wolyn – Credited with leading the team to create and commercialize the Millennium hybrid asparagus. Undergraduate work at Rutgers. Other projects include breeding and genetics of the Russian dandelion with potential for production of natural rubber.

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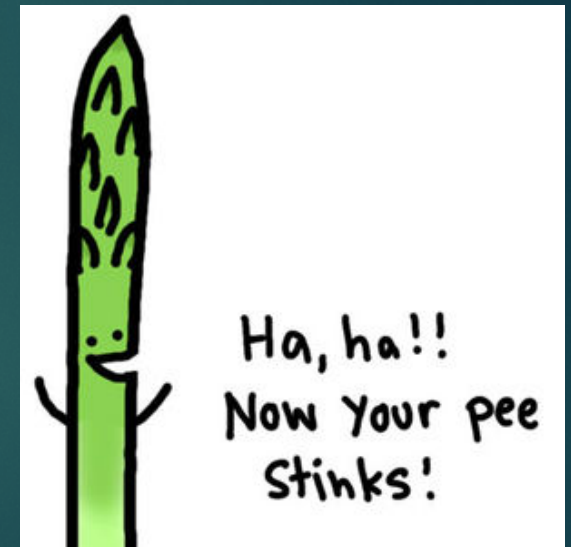
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You cannot escape a discussion of asparagus without talking about its effect on the odor of your urine within minutes after it has been eaten.



Asparagus contains the low volatile organosulfur compound asperagusic acid (only found in plants of the Asparagaceae family), which is rapidly metabolized (as when eating asparagus) and breaks down into highly volatile compounds with volatilization occurring at room temperatures.

Turpentine is claimed to sweeten the odor – in the chamber pot



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Why some people cannot smell this effect, or claimed not to be able to smell the asparagus effect was resolved around 2010 when a genetic sequencing firm undertook a study of 10,000 clients, where they asked about urine odors after eating asparagus. Those who reported having no noticeable change in urine odors had a specific genetic mutation that coded for olfactory receptors, and as a consequence really were unable to smell the sulfur compounds.



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The Nourse Farm was established in 1722 and is the 10<sup>th</sup> oldest continuously operated family farm in the US.

### Suppliers

Joel Nourse invented the Nourse Eagle Plow in 1842 that allowed for even tilling in difficult soils. One is in the Smithsonian

Benjamin who farmed in later half of the 1800's kept detailed notes on the farm that are of value to climate researchers today.



Nate, Tim and Mary Nourse

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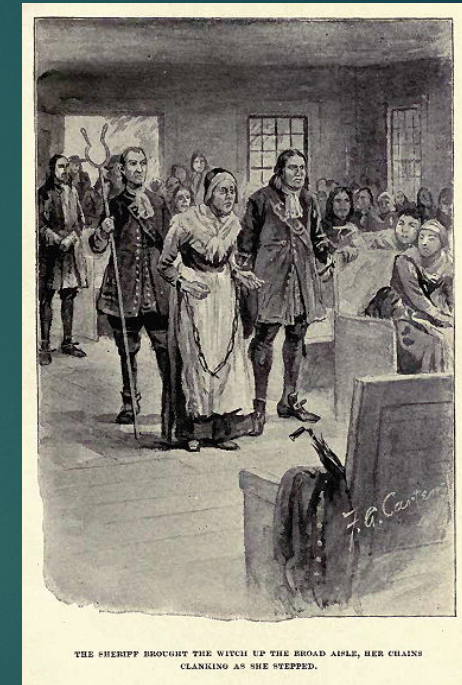
Rebecca Towne married Francis Nurse in 1640  
when Rebecca was 18  
Raising 8 children on a farm in Salem

In 1692 at the age of 71 Rebecca  
was accused of being a witch

At her trial in June 1692 she was found  
innocent

At the announcement of the  
verdict the accusing girls began  
having fits

And at a second  
proceeding was  
found guilty and was  
hung on July 19, 1692

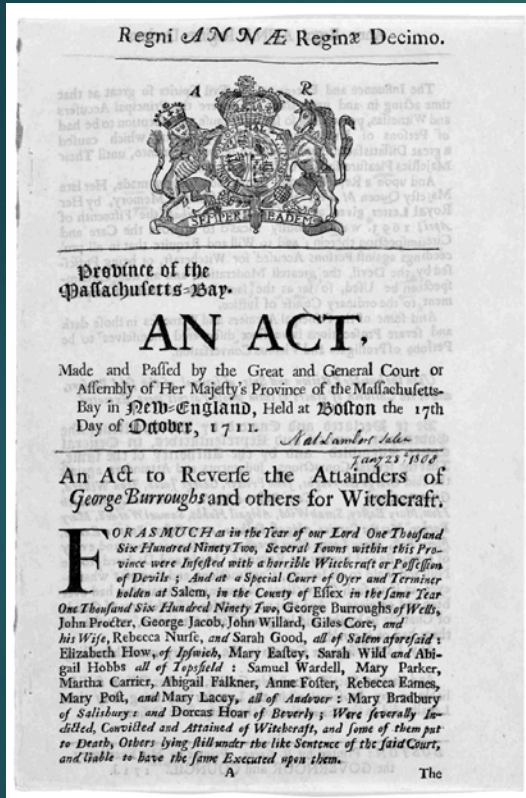


THE SHERIFF BROUGHT THE WITCH UP THE BROAD ABBE, HER CHAINS CLANKING AS SHE STEPPED.



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In 1711 an act was passed that recanted the conviction and provided the family some compensation

Ebenezer and William Nurse (Rebecca's grandchildren) in 1722, having moved about 40 miles west of Salem established the farm in what is now Westborough.

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