

Building and Managing an Urban Food Forest

M'LI HOKI WITH WATER WISE DESIGNS



Agenda

Presentation

Questions last 5 Min

Presenter: M'Li Hoki

WWW.Waterwisedesigners.com



Introduction

M'Li Hoki

Water Wise Designs

www.Waterwisedesigners.com

YouTube

Garden Wise Adventures



What is a Food Forest

A food forest, also called a forest garden, is a diverse planting of edible plants that attempts to mimic the ecosystems and patterns found in nature. Food forests are three dimensional designs, with life extending in all directions – up, down, and out.

The Food Forest Project

<https://projectfoodforest.org/what-is-a-food-forest/>

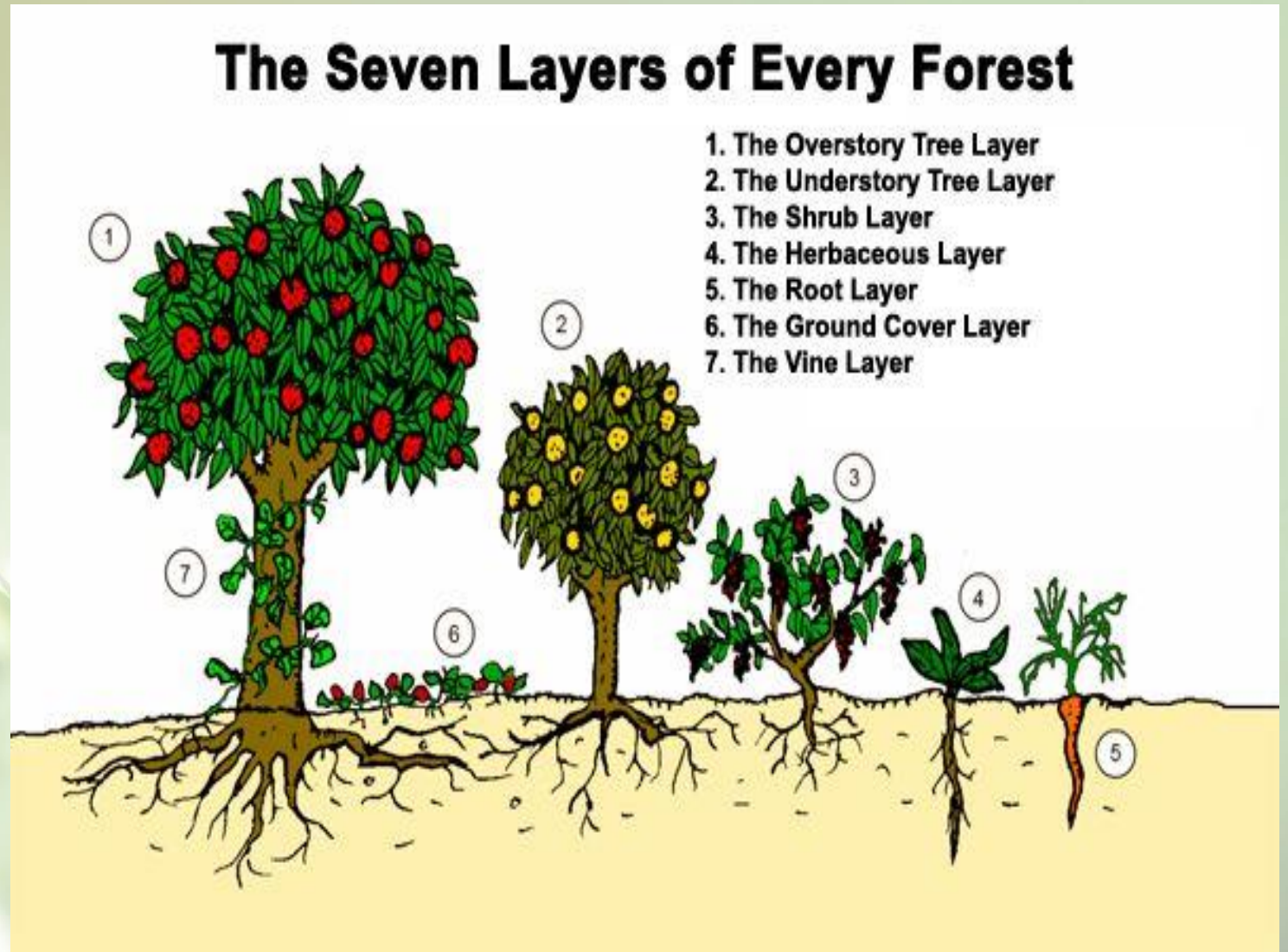


Food Forest 7 Layers

The Food Forest Project

<https://projectfoodforest.org/what-is-a-food-forest/>

Credit: Permaculture a Beginner's Guide by Graham Burnett



Urban Food Forests

Urban food forests take the attributes of a rural food forest and adapt them to an urban environment









Why should you grow edibles in your landscape?

1. Beauty
2. Food Security
3. Enjoyment
4. Improves Health



What should you research before choosing plants?



**“Before anything else,
preparation is the key to
success.” — *Alexander
Graham Bell, inventor***

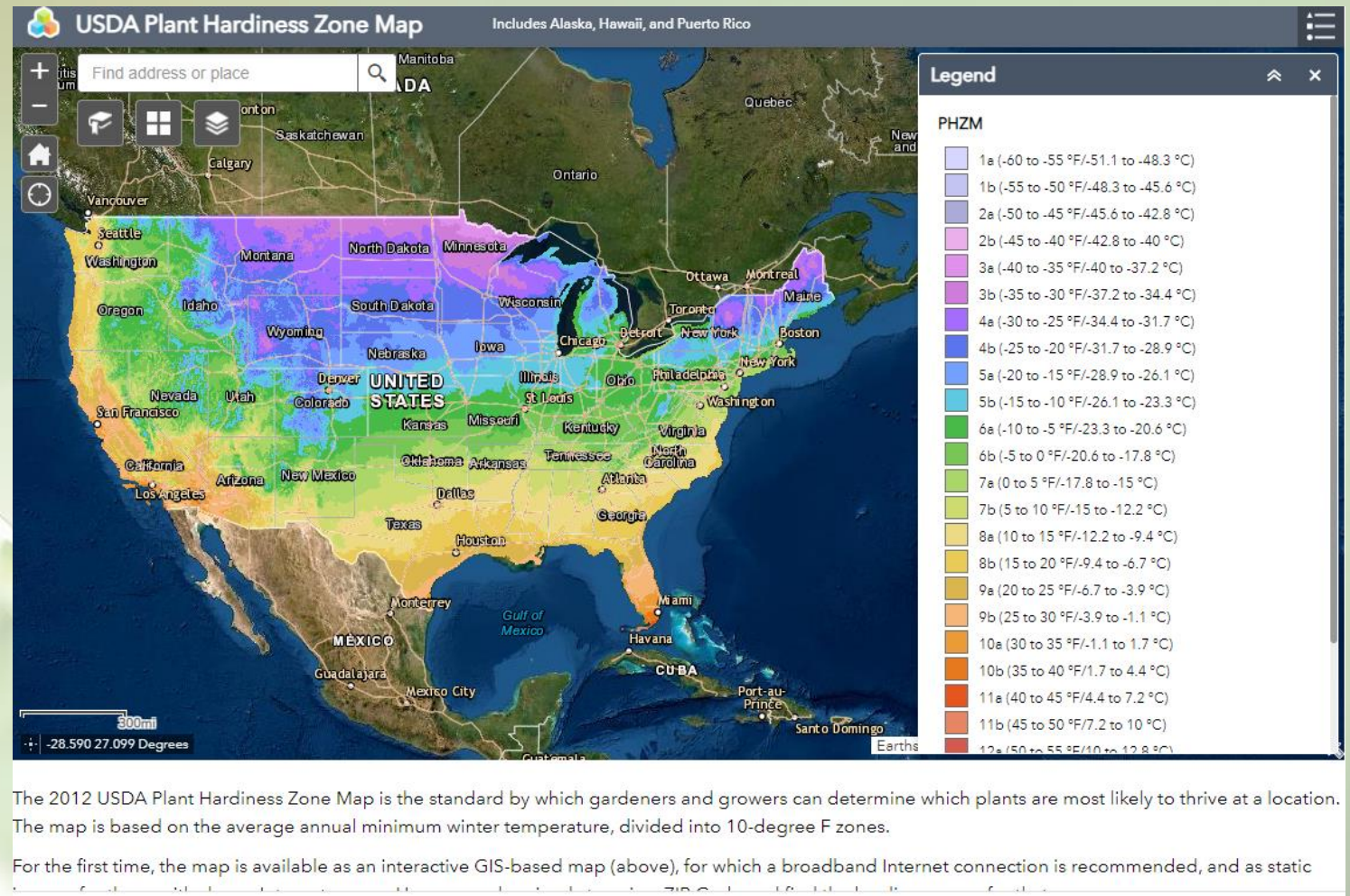


Planting Zones

Microclimates

First and Last Frost Date

<https://planthardiness.ars.usda.gov/>





Where else can you get information?

No. 1	Extension Service
No. 2	Local Nurseries
No. 3	https://forestry.usu.edu/trees-cities-towns/tree-selection/hardiness-zones



Utah Hardiness Zones | Forestry

extension.usu.edu/forestry/trees-cities-towns/tree-selection/hardiness-by-state/utah-hardiness-zones

Home - CanvaQuickBooksQuickBooks Water...Motion ArrayOnline Courses - Le...The Ultimate DaVin...HoneyBook: Home

QUICK LINKSMyUSUSearch

UtahStateUniversityForestryExtension

Tree IdentificationPresentationsWebinarsTrees in Cities & TownsRural ForestsFire CouncilPublicationsResources

Utah Calculated Average and Minimum USDA Hardiness Zones

Search...

County	Weather Station	Elev. (feet)	Average Annual Minimum Temperature (°F)	Absolute Minimum (°F)	Average and Minimum Hardiness Zones	Years of Data
Beaver	Beaver Canyon Pwr House	7275	-7.6	-16.6	Zones 6a, 5a	22
Beaver	Big Flat	10349	-11.2	-23.8	Zones 5b, 4b	30
Beaver	Brimstone Res. - Milford 20WSW	5620	-0.4	-11.2	Zones 6b, 5b	30
Beaver	Merchant Valley	8703	-11.2	-27.4	Zones 5b, 4a	29
Beaver	Milford Muni AP	5040	-13	-34.6	Zones 5b, 3b	29
Box Elder	Brigham City Waste Plt	4230	-4	-25.6	Zones 6b, 4a	30
Box Elder	Cutler Dam	4290	-2.2	-18.4	Zones 6b, 5a	30
Box Elder	Rosette	5685	-5.8	-23.8	Zones 6a, 4b	30
Box Elder	Thiokol Plant 78	4600	-25.6	-25.6	Zones 4a, 4a	20
Box Elder	Tremonton	4310	3.2	-18.4	Zones 7a, 5a	20
Box Elder	Utah Test Range	4440	-4	-25.6	Zones 6b, 4a	28

Sun Exposure

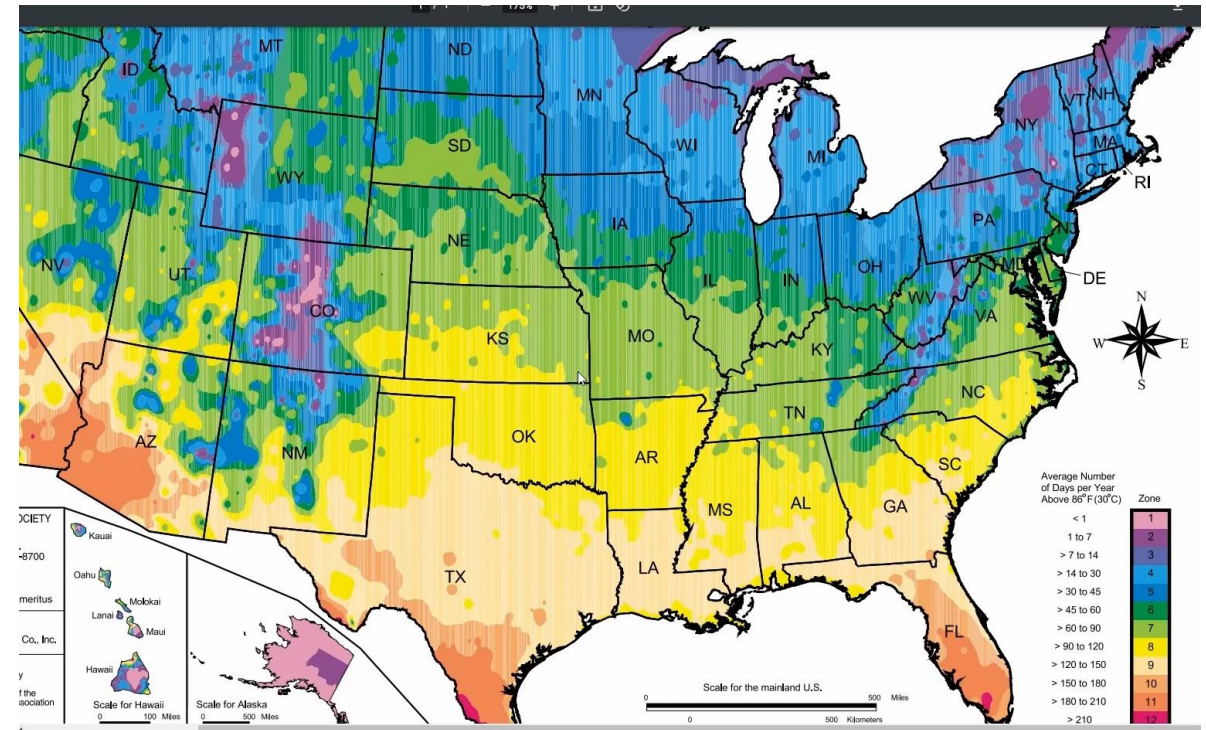
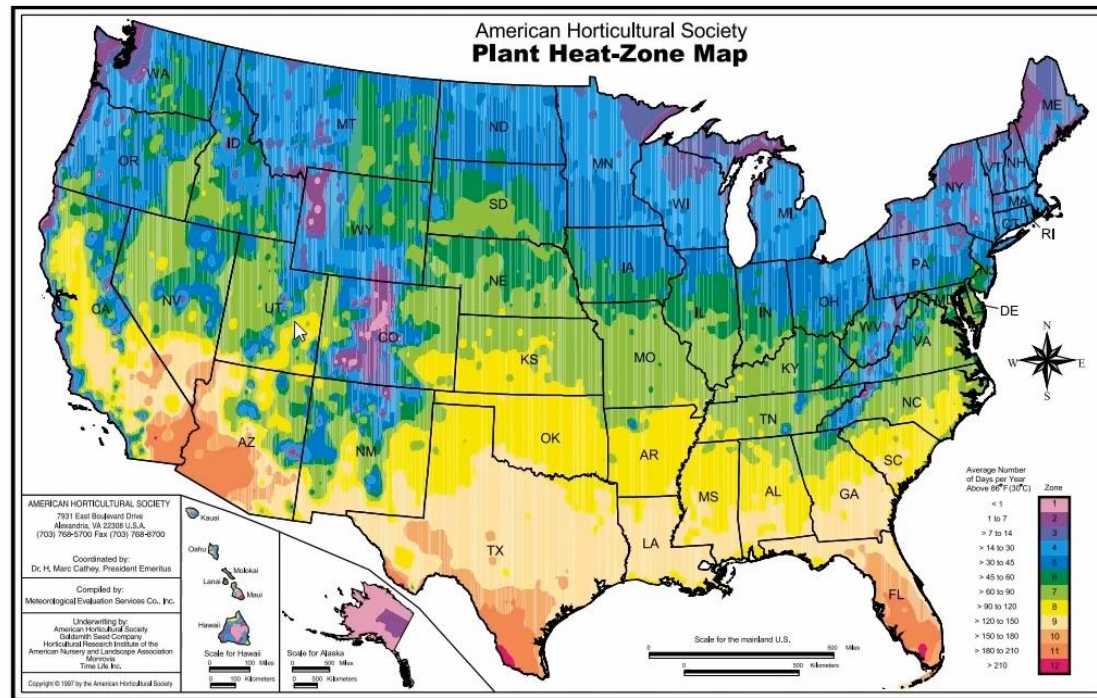
Make sure sun loving plants are able
To get at least 6 to 8 hours of sun a day.

Shade loving edibles need full shade to
6 hours of sun a day depending on the
Plant.



Find Your Area's Heat Index

American Horticultural Society Plant Heat-Zone Map



Access to Water

Culinary
Secondary



Access to Water

Rotary Sprinklers

Spray Heads

Drip





Soil Types and Fertility?

No. 1	What is your soil type?
No. 2	How fertile is it?
No. 3	Where do you go to find out?



Soil Types and Fertility

Clay

Sand

Silt

Loam

How much organic matter
is there? (Optimum is
between 3% and 6%)



Soil Types and Fertility

Get your soil tested!
<http://www.usual.usu.edu/home-soil/index>



The screenshot shows the Utah State University Analytical Laboratories website. The header includes the university logo and navigation links: Tests, Understanding Your Results, About Us, and Contact. A search bar is also present. Below the header is a large image of soil. The main heading is "Home Soil Test". Below this, it asks "Why get your home soil tested?" and lists three reasons: 1. Helps you grow healthier, more productive soils; 2. Responsibly protects the environment; 3. Saves you money. At the bottom, there is a section for "Suggested Home Soil Tests" with two options: "Routine Test" for \$30 and "Micro Plus Test" for \$45. The Routine Test includes basic measurements and fertilizer recommendations. The Micro Plus Test includes all features of the Routine Test plus key micronutrient levels.

Utah State University
ANALYTICAL LABORATORIES

Tests Understanding Your Results About Us Contact

Home Soil Test

Why get your home soil tested?

- Helps you grow healthier, more productive soils:** Routine soil testing identifies what nutrients are needed or not needed in the soil. Soil pH, salinity levels, and soil texture are also analyzed. If plant nutrients are found to be deficient, the soil test will indicate amounts needed for optimum growth.
- Responsibly protects the environment:** Soil testing also reveals what nutrients are present in excess amounts that should NOT be added. Applying nutrients needlessly results in soil chemical imbalance and plant problems. Excessively applied nutrients contaminate water, adversely affecting public health and the environment.
- Saves you money:** You make better decisions and save money when you do not apply nutrients that are not needed. Wisely, you only apply what the soil needs.

Step 1: Pick a Test and Complete Form Step 2: Collect Your Sample Step 3: Deliver

Suggested Home Soil Tests

Test Name	Price
Routine Test ✓ Basic measurements for the vast majority of home gardening needs ✓ Provides Phosphorus (P_2O_5) and Potassium (K_2O) fertilizer recommendations	\$30
Micro Plus Test ✓ Starts out with all the features of the Routine Test ✓ Includes key micronutrient levels that are often deficient in arid/semi-arid Western US soil conditions (Iron, Zinc, Copper and Manganese)	\$45



Drought Tolerance

Most fruit bearing trees and shrubs are drought tolerant. They will need a deep soak every week to 2 weeks.



Drought Tolerance

Most edible perennials are very drought tolerant.

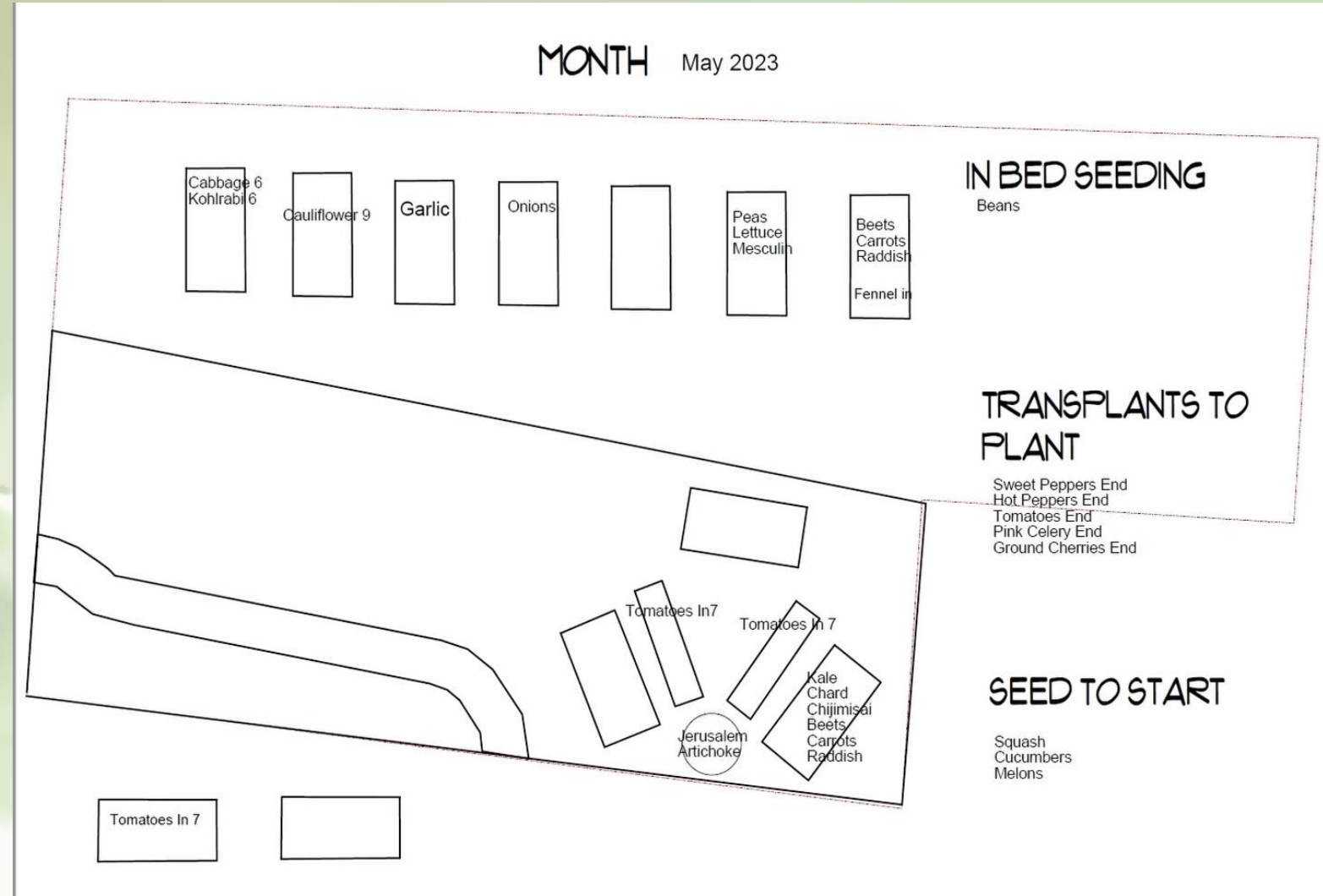


Drought Tolerance

Hydrozone your edible
annuals so they are
grouped together.



What is the size of the area to be planted?



Where Will You Be Growing Your Edibles?

Pots?

Raised Beds?

In Ground?





What To Think About When Growing Edibles In Pots

No. 1	Size of pot and how easy is it to move.
No. 2	Will it over winter?
No. 3	Fertilizing, sun exposure and watering.





What To Think About When Growing Edibles In Raised Beds



No. 1	Irrigation
No. 2	Soil Mix
No. 3	Durability



Plants that are both ornamental and Edible

Trees

Shrubs

Perennials

Annuals





Ornamental and Edible Trees



**Cherry, Apple, Peach,
Pear, Pluot, Plum,
Nectarine**



Ornamental and Edible Trees



**“Grow a Little Fruit Tree”
by Ann Ralph**

**Dave Wilson Backyard
Orchard Culture**

[https://www.davewilson.com/h
ome-garden/backyard-orchard-
culture/](https://www.davewilson.com/home-garden/backyard-orchard-culture/)







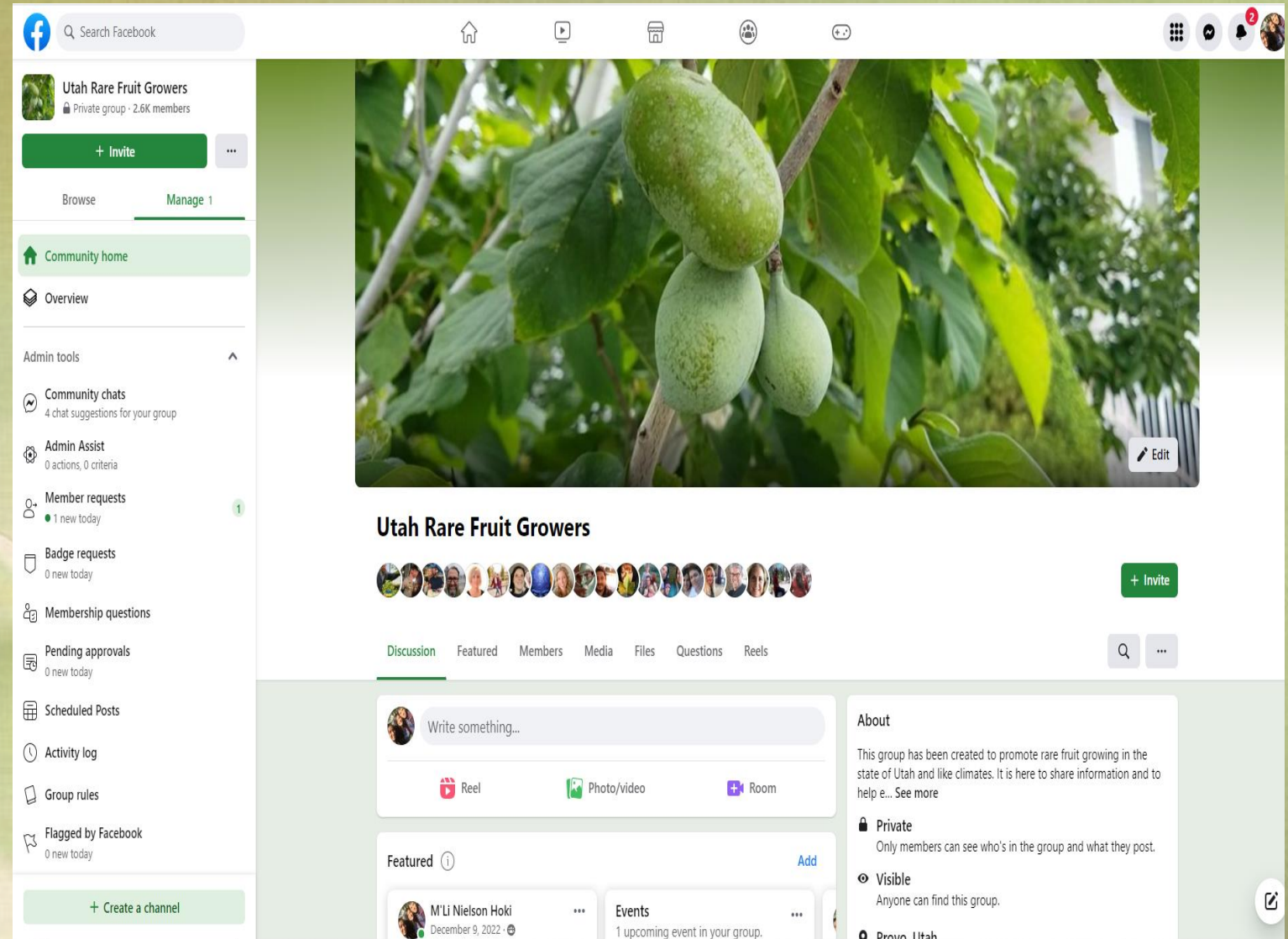




Ornamental and Edible Trees



Utah Rare Fruit Growers Facebook Group



The screenshot displays the Facebook interface for the 'Utah Rare Fruit Growers' group. The top navigation bar includes the Facebook logo, a search bar, and icons for home, video, marketplace, community, and notifications. The group's cover photo shows green, pear-shaped fruits hanging from a tree. The group name 'Utah Rare Fruit Growers' is prominently displayed, along with a row of member profile pictures and an 'Invite' button. Below this, tabs for 'Discussion', 'Featured', 'Members', 'Media', 'Files', 'Questions', and 'Reels' are visible. The 'Discussion' tab is active, showing a text input field with the placeholder 'Write something...'. To the right, the 'About' section provides details: the group is 'Private', has 'Visible' privacy settings, and its purpose is to promote rare fruit growing in Utah and similar climates. A 'Featured' section at the bottom highlights a post by M'Li Nielson Hoki from December 9, 2022, mentioning an upcoming event.



Ornamental and Edible Trees



Jujubees



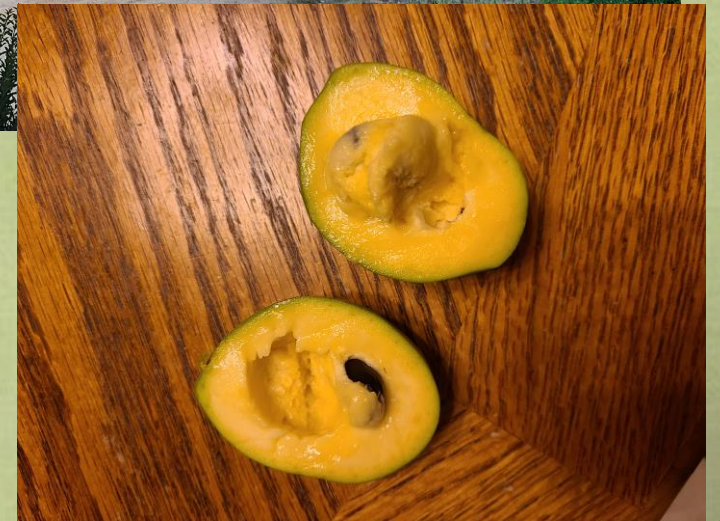




Ornamental and Edible Trees



Paw Paw







Ornamental and Edible Trees



Figs



Ornamental and Edible Trees



Figs



Ornamental and Edible Trees



Figs





Chicago Hardy



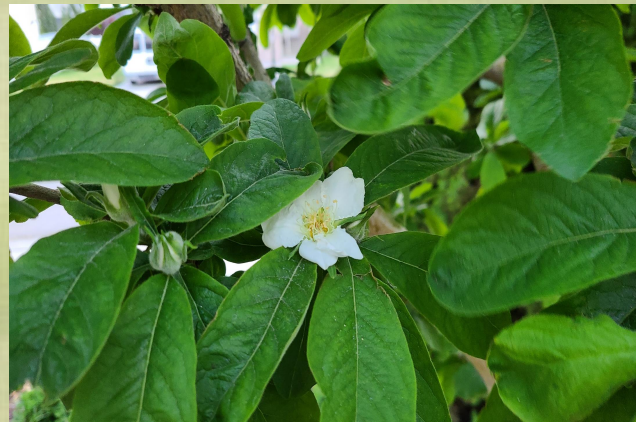
Desert King



Ornamental and Edible Trees



Medlar









Ornamental and Edible Trees



Nut Trees



Ornamental and Edible Trees



Hazelnut



Ornamental and Edible Trees



Almond



Ornamental and Edible Trees



Yellowhorn



Ornamental and Edible Trees



Walnut



Ornamental and Edible Shrubs



Elderberry



Ornamental and Edible Shrubs



Bush Cherry and Nanking Cherry



Ornamental and Edible Shrubs



Honeyberry





Ornamental and Edible Shrubs



Goumi Berry



Ornamental and Edible Shrubs



Chokeberry





Ornamental and Edible Shrubs



Serviceberries!





Ornamental and Edible Shrubs



Hardy Pomegranates!

Kazake
Salavatzki
Russian 26





Ornamental and Edible Shrubs



Persimmons

American or American/Asian
Hybrids are the most hardy



Ornamental and Edible Shrubs



Chasteberry

Vitex Agnus Castus

Shoals Creek

Blue Diddley





Ornamental and Edible perennials, flowers and herbs



Echinacea Or Purple Coneflower



Ornamental and Edible perennials, flowers and herbs



Calendula



Ornamental and Edible perennials, flowers and herbs



Borage



Ornamental and Edible perennials, flowers and herbs



Viola



Ornamental and Edible perennials, flowers and herbs



Nasturtiums



Ornamental and Edible perennials, flowers and herbs



Bee Balm



Ornamental and Edible perennials, flowers and herbs



Sage



Ornamental and Edible perennials, flowers and herbs



Oregano



Ornamental and Edible perennials, flowers and herbs



Drops of Jupiter Oregano



Ornamental and Edible perennials, flowers and herbs



Lovage



Ornamental and Edible perennials, flowers and herbs



Rosemary



Ornamental and Edible perennials, flowers and herbs



Lemon Balm



Ornamental and Edible perennials, flowers and herbs



Mints



Ornamental and Edible perennials, flowers and herbs



Stevia



Ornamental and Edible perennials, flowers and herbs



Parsley



Ornamental and Edible perennials, flowers and herbs



Thyme



Ornamental and Edible perennials, flowers and herbs



Chives



Ornamental and Edible perennials, flowers and herbs



Strawberries





Edible Landscape Care



No. 1	Mulch
No. 2	Fertilizer
No. 3	Watering





Edible Landscape Care



No. 4	Winter Protection
No. 5	Pruning



Mulch

1. Materials
2. Depth
3. Maintenance



Fertilizer

1. Research before fertilizing any plant
2. Get a Soil Test
<https://usual.usu.edu/home-soil/index>
3. Natural or Synthetic?



Watering

1. Hydrozone your plants
2. Use drip
3. Train roots to go deeper by deep soaking infrequently



Winter Protection

1. Know your plants cold tolerance
2. Place sensitive plants in warmer microclimates
3. Wrap your tender plants



Pruning

1. Prune regularly and correctly.
2. There are many classes in the spring. Find a good one and take it!
3. Make sure to put the right plant in the right place so you don't need to prune to make it fit the area you put it in.





Thank you

M'Li Hoki

801-899-6166

mli@waterwisedesigners.com

www.Waterwisedesigners.com

