Welcome to the Smart Landscapes webinar!

MISSISSIPPI STATE UNIVERSITY EXTENSION

Mississippi Smart Landscapes

Mississippi State University Extension Service

Smart LANDSCAPES

TODAY'S WEBINAR:

9 AM Create an edible legacy: Make your own food forest garden

Bob Brzuszek, extension professor of landscape architecture, Mississippi state university

10 am Planting Design for New Landscapes or Renovation Projects

Pat drackett, Asst Prof & Director, Crosby Arboretum

11 am Common Butterflies Found in Mississippi & their Host Plants

Dr. Eddie Smith, Extension Agent III, Pearl river county

CREATE AN EDIBLE LEGACY: MAKE YOUR OWN FOOD FOREST GARDEN

MISSISSIPPI STATE UNIVERSITY EXTENSION

BOB BRZUSZEK, DEPT. OF LANDSCAPE ARCHITECTURE

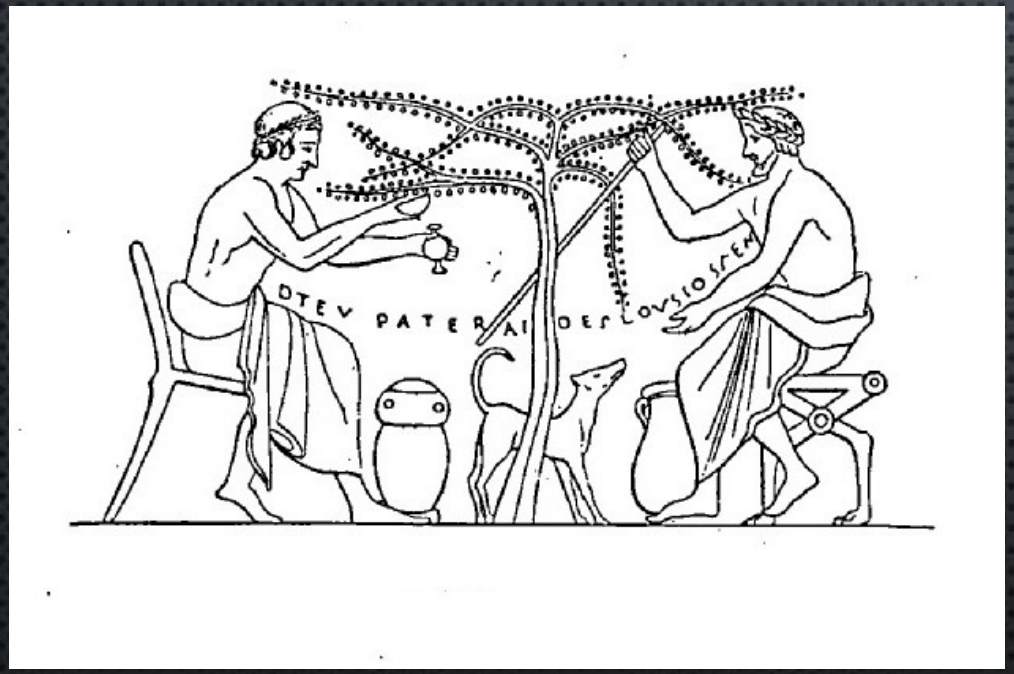
MISSISSIPPI STATE UNIVERSITY EXTENSION

IMAGE: AMERICAN PERSIMMON

TOPICS INCLUDED:

- BRIEF HISTORY OF FRUIT PRODUCTION
- NATIVE AMERICAN USE OF FRUITS AND FOODS
- FRUIT CROPS BEST ADAPTED TO MISSISSIPPI'S ENVIRONMENTS
- PERMACULTURE AND FOOD FOREST PRINCIPLES
- FOOD FOREST EXAMPLE GARDENS
- FOOD FOREST PLANTS ARRANGED BY HEIGHT

FRUIT PRODUCTION HAS BEEN AROUND A LONG TIME



Ménard, René. La vie privée des anciens.

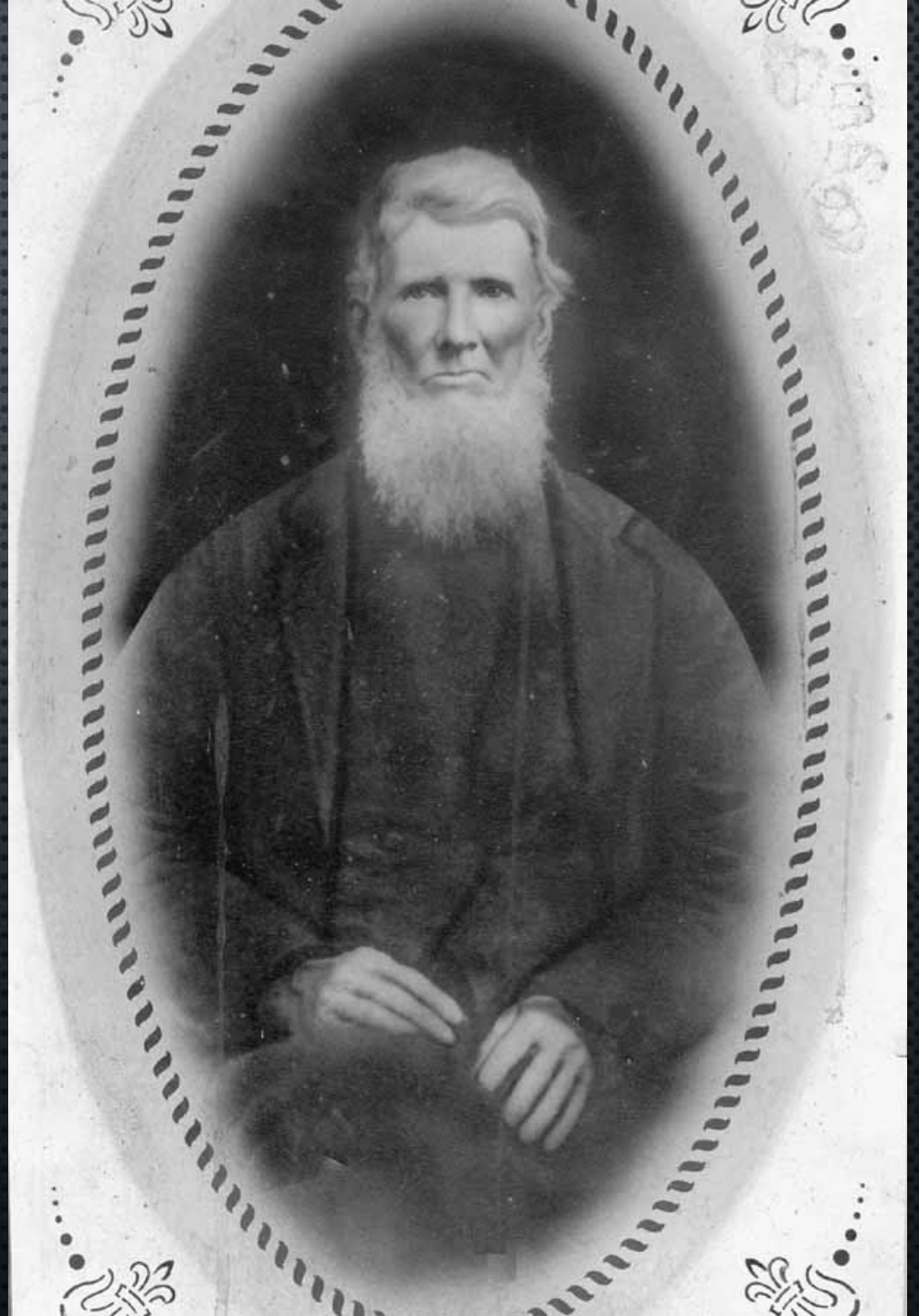
Warka Vase, Uruk, Late Uruk period, c. 3500-3000 B.C.E

POMOLOGY, THE SCIENCE OF FRUIT GROWING, STARTED IN EUROPEAN GARDENS


MEADOW ORCHARD

JOHNNY APPLESEED
(JOHN CHAPMAN, 1774-1845)

JOHN CHAPMAN PLANTED APPLE TREES IN NURSERIES AND CAME BACK TO TEND THEM ANNUALLY



MISSISSIPPI TREE FRUITS- APPLES, PEACHES, PEARS, PLUMS, AND NECTARINES, CITRUS (KUMQUAT, SATSUMA, MEYER LEMON), FIGS, MAYHAWS, AND PERSIMMONS

Pecans

Oriental persimmons

Peaches

- "Intense management, irrigation, proper insect and disease control, timely harvest, and proper marketing are all necessary to make fruit production profitable."
- -- **Tree Fruit in Mississippi, Mississippi State University Extension service**

Peach brown rot

THE MISSISSIPPI CHOCTAW AND CHICKASAW PEOPLES GREW CROPS REGULARLY, SOME WHICH PERSIST TODAY

AGAVE AMERICANA IN WOODS

AGE OF SEVERAL HUNDRED YEARS???

Native American families grew corn, beans and melons in community gardens but also foraged in the woods and fields for wild foods

Sketch by Ruby Bolding

"CHOCTAWS AND A CORNUCOPIA OF FOOD"

- TAKKONLUSHI (PLUMS), HASHI (SUNFLOWERS), CRABAPPLE, UKOF (PERSIMMONS, OFTEN MIXED WITH WAK NIPI-BEEF OR ISI NIPI-DEER MEAT IN A STEW), PAHKI (LARGE BLACK GRAPES), ITALIKCHI ANI (CHERRIES), BIHI (MULBERRIES), AND ANI (NUTS) SUCH AS UKSAK (HICKORY), OKSAK FULA (PECANS) AND UKSAK HAHE (WALNUTS)

Recovering Our Ancestors' Gardens: Indigenous Recipes and Guide to Diet and Fitness. University of Nebraska Press, 2005

CROPS WELL SUITED TO OUR STATE (CLIMATE, SOILS, RAINFALL, AND HUMIDITY)

MAYHAWS

MUSCADINES

BLACKBERRIES

- THE MAJOR FRUIT CROP IN MISSISSIPPI IS BLUEBERRIES, WITH MORE THAN 2,000 ACRES IN PRODUCTION.

CROPS WELL SUITED TO OUR STATE (CLIMATE, SOILS, RAINFALL, AND HUMIDITY)

Chickasaw plum

Oriental persimmon

Fig

Mulberries

CROPS WELL SUITED TO OUR STATE (CLIMATE, SOILS, RAINFALL, AND HUMIDITY)

Canning pears

Elderberries

Paw paws

Southern crabapple

GROWING AN EDIBLE FOOD FOREST (PERMACULTURE)

- A FOOD FOREST DIFFERS FROM A TRADITIONAL GARDEN OR ORCHARD IN THAT IT INSTEAD MIMICS HOW A WOODLAND OR FOREST GROWS.

A garden for the needy
Peace Lutheran Church
Fairfax County, VA

TRADITIONAL ORCHARD (MONOCULTURE)

- MAXIMIZES YIELD FOR ONE CROP
- PESTS AND DISEASES SPREAD EASILY
- REQUIRES MORE ACRES FOR CROP
- ALL PLANTS IN FULL SUN

FOOD FOREST (POLYCULTURE)

- MAXIMIZES DIVERSITY OF CROPS
- PESTS AND DISEASES MINIMIZED SPREAD
- MINIMIZES SPACE NEEDS FOR CROP
- PLANTS SELECTED FOR VARIED SUN AMOUNTS

TRADITIONAL ORCHARD

- BECAUSE PLANTS ARE GROWN CLOSE TOGETHER IN A MONOCULTURE, PESTS AND DISEASES SPREAD EASILY FROM PLANT TO PLANT CREATING INFESTATIONS

Wooly apple aphid spreads from tree to tree

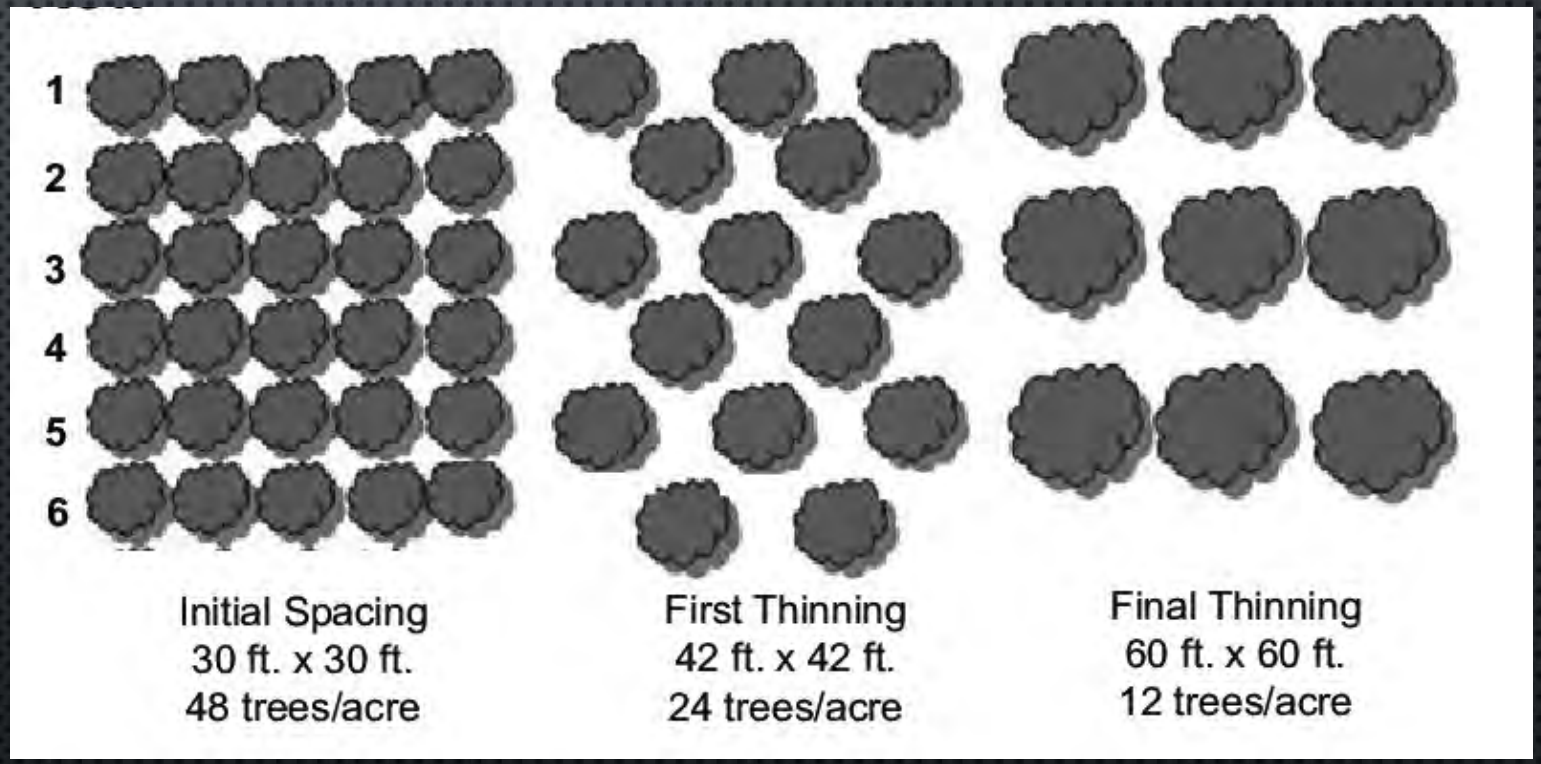
Pecan scab occurs from poor air flow

Intercropping apple trees with other species slows aphid spread and spacing pecans further apart opens air flow to prevent diseases like pecan scab.

TRADITIONAL ORCHARD

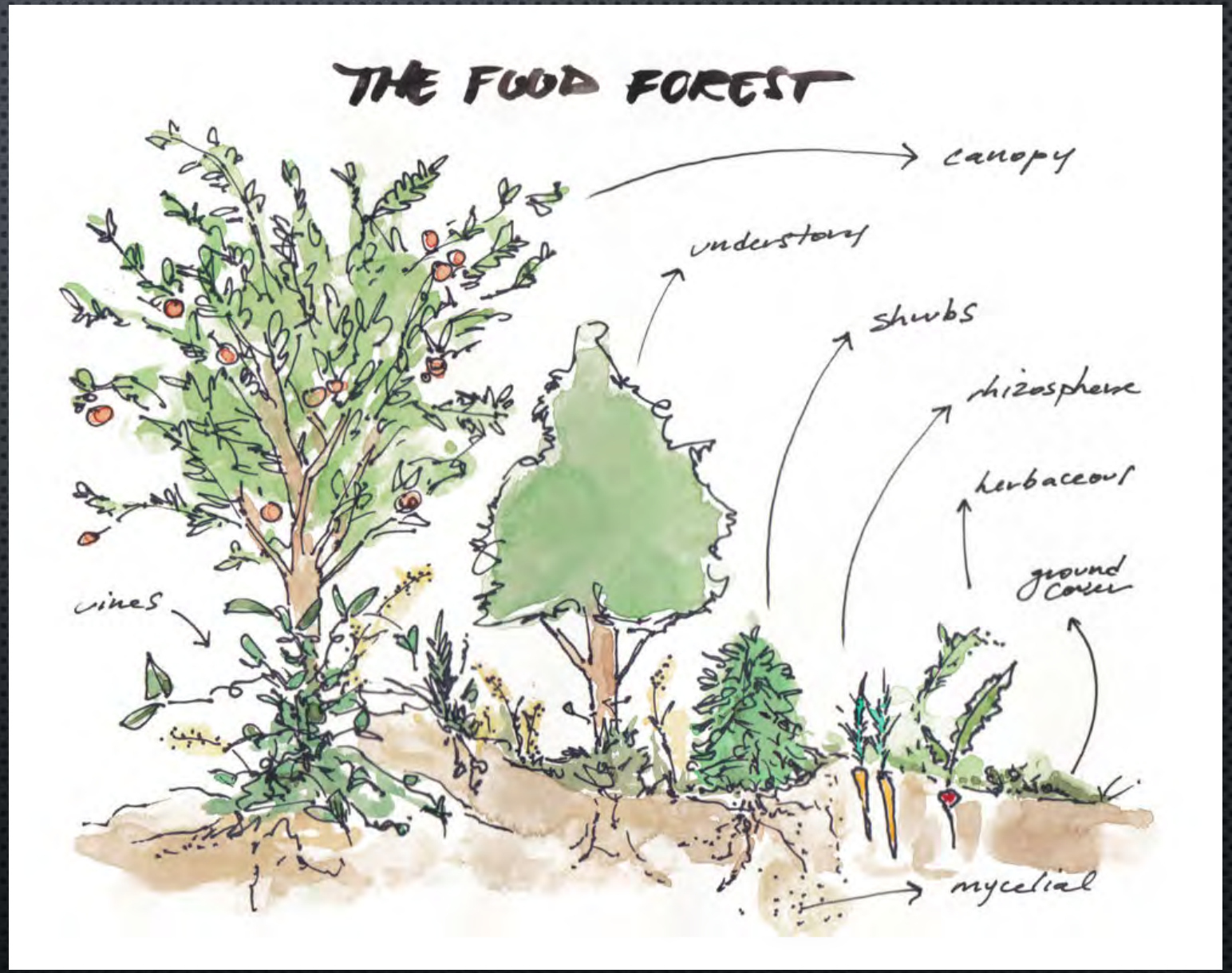
- TYPICAL FRUIT TREE SPACING MAXIMIZES AMOUNT OF SUNLIGHT FOR FRUIT PRODUCTION AND SPACE FOR MECHANICAL HARVESTING

AVERAGE ORCHARD THINNING PLAN

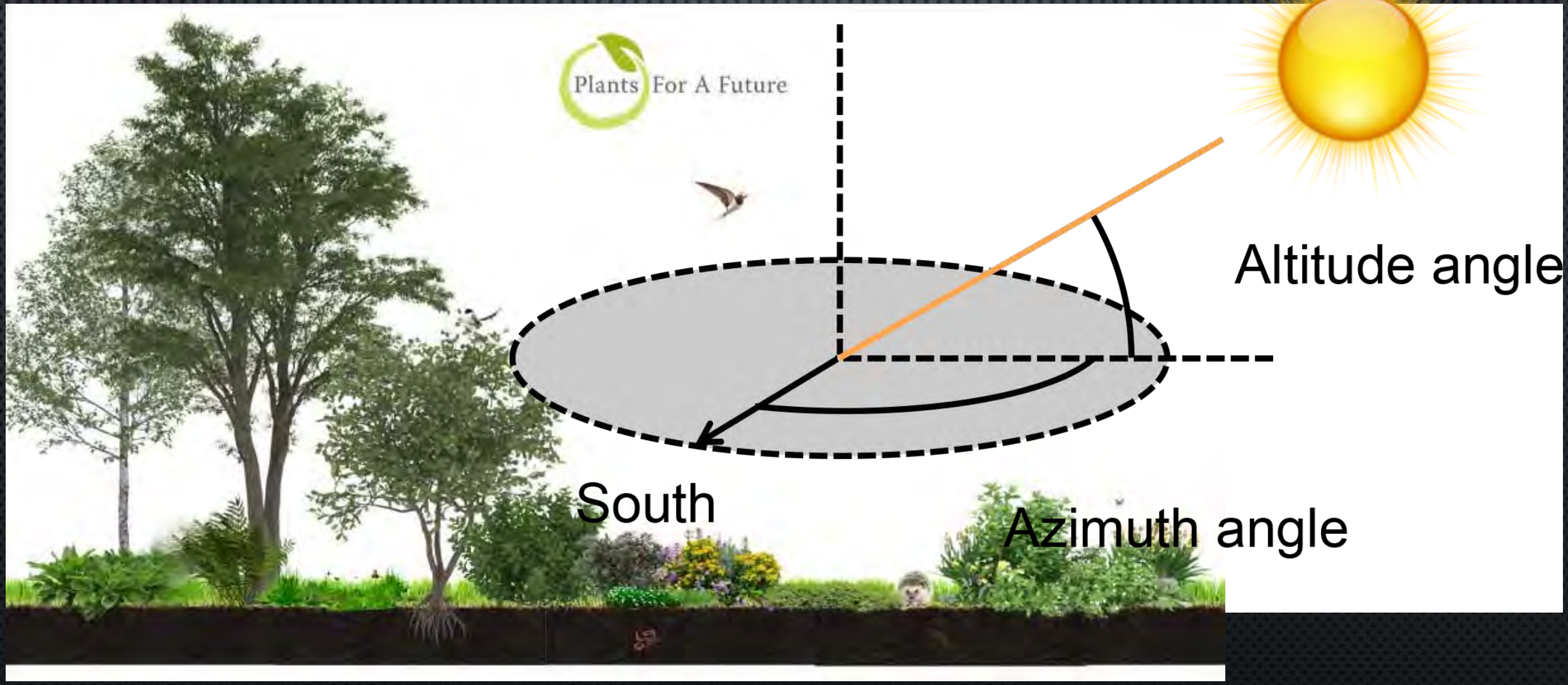


A FOOD FOREST, LIKE A NATURAL FOREST, ALLOWS FOR PLANTS TO BE PLACED UNDER EACH OTHER BY HEIGHT LEVELS:

CANOPY
UNDERSTORY
SHRUB
GROUND
VINE



SUNLIGHT IS THE LIMITING FACTOR IN A FOOD FOREST



PLANTS CAN BE ARRANGED TO TAKE ADVANTAGE OF MAXIMUM SUN ANGLE

SUNLIGHT IS THE LIMITING FACTOR IN A FOOD FOREST

- BEST FRUIT PRODUCTION WITH 6 HOURS OF DIRECT OR INDIRECT SUNLIGHT
- FILTERED LIGHT FROM PINES OR THINNED NUT TREES PROVIDES AMPLE UNDERSTORY LIGHT FOR FLOWER AND FRUIT

IF YOU ARE STARTING WITH AN OPEN SUNNY AREA, OVER TIME THE UNDERSTORY WILL BECOME SHADY AND HAVE LIMITED PRODUCTION

SOLUTIONS INCLUDE:

-PERIODIC LIMB THINNING TO OPEN SUNLIGHT

-OCCASIONAL TREE REMOVAL

-ALLOW TO GO INTO FOREST SUCCESSION

Or just add more shade tolerant edible plants, though production diversity will be much reduced:

- Canopy nut trees including beech, walnut and hickory
- Understory trees include two wing silverbell (Halesia diptera) and kousa dogwood (cornus kousa)
- Shrubs like agave, bamboo
- Groundcovers such as violets, wood sorrel, partridge berry
- Vines including muscadine and greenbriar

Partridge berry
Mitchella repens

FOOD FOREST PRINCIPLES: (FROM PROJECT FOOD FOREST)

- PLACING EMPHASIS ON TREES, SHRUBS, PERENNIALS, AND SELF-SEEDING ANNUALS,
- PLANTING THICKLY AND USING GROUND COVERS TO SHADE SOIL AND SUPPRESS WEEDS,
- RETURNING WASTES TO THE LAND TO CREATE HEALTHY SOIL RATHER THAN APPLYING FERTILIZER,
- PLANTING A DIVERSE ARRAY OF PLANTS THAT ATTRACT BENEFICIAL INSECTS TO POLLINATE THE FRUIT CROPS AND KEEP PEST POPULATIONS FROM EXPLODING AND CAUSING DAMAGE.

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

FOOD FOREST PRINCIPLES

USE PERENNIAL FOOD PLANTS INSTEAD OF ANNUALS

- AVOID DISTURBING SOIL TO PREVENT WEEDS
- EXAMPLES OF PERENNIAL HERBS INCLUDE:
  - ASPARAGUS
  - FENNEL
  - MINT
  - SHALLOTS
  - ROSEMARY
  - SAGE
  - THYME

USE GROUND COVERS TO SUPPRESS WEEDS

- PLACE PLANTS CLOSELY TOGETHER TO COMPETE AGAINST WEEDS
- PLANT A LOW GROUNDCOVER TO SHADE THE SOIL AND PREVENT WEEDS, SUCH AS:
  - CREEPING OREGANO
  - WOOD SORREL
  - CREEPING THYME

THREE SISTERS PLANTING CONCEPT

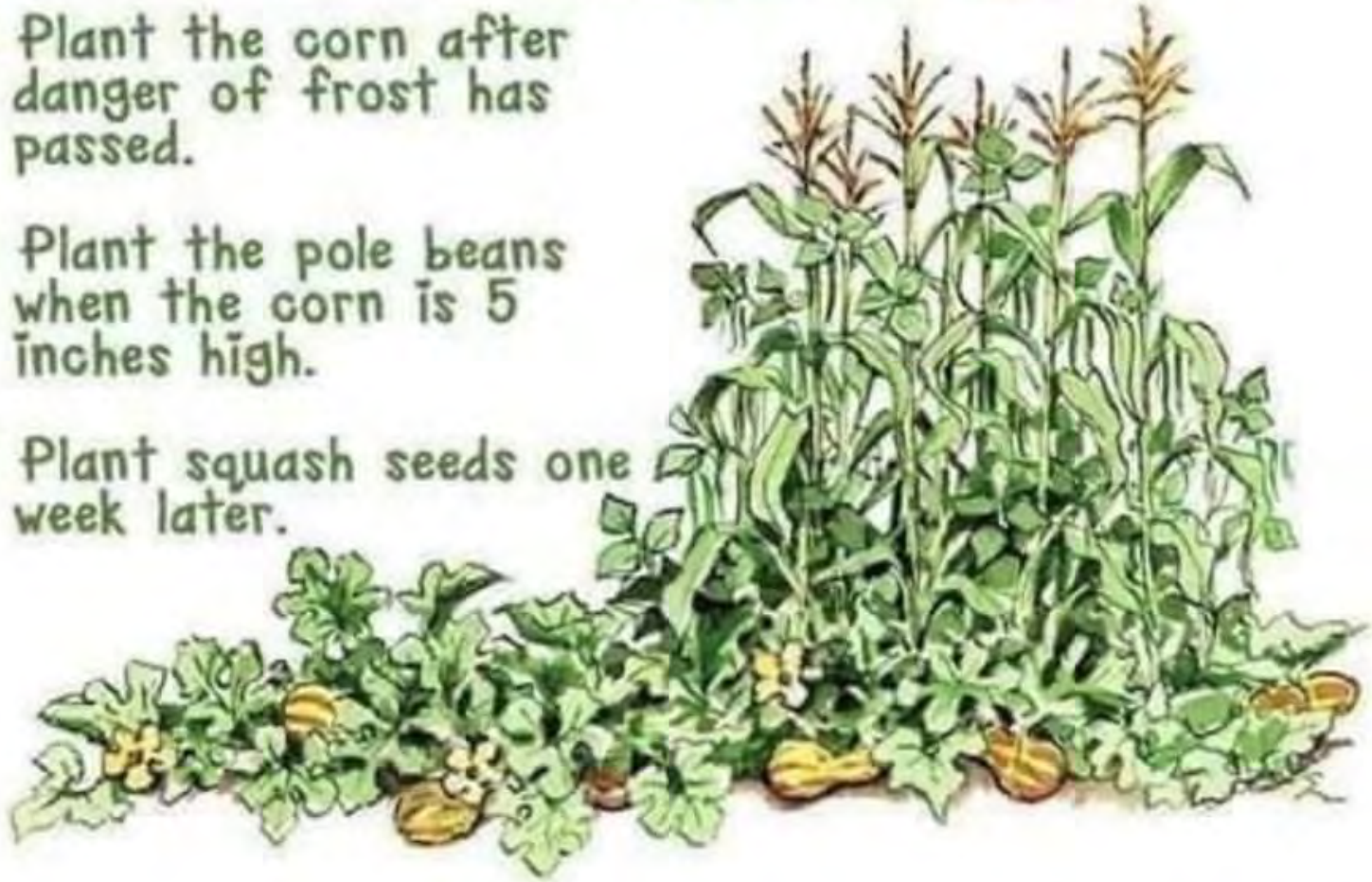
Three Sisters Garden
Corn, Pole Beans, & Squash

THE CORN SUPPORTS THE BEANS, THE BEANS ADD NITROGEN AND THE SQUASH SHADES OUT THE WEEDS

1) Plant the corn after danger of frost has passed.

2) Plant the pole beans when the corn is 5 inches high.

3) Plant squash seeds one week later.




COMFORT
IN
CHAOS

FOOD FOREST PRINCIPLES

RETURN GREEN WASTE TO SOIL

- BUILDING A HEALTHY LIVING SOIL IS KEY
- USE LEAVES FROM TREES AS MULCH
- RETURN FOOD AND PLANT WASTE BACK TO GARDEN OR USE COMPOST

USE PLANTS THAT ATTRACT BENEFICIAL INSECTS

- PLANT POLLINATOR PLANTS:
  - ASTERS
  - BLAZING STAR
  - MISTFLOWER
  - COREOPSIS

  BENEFICIAL PREDATORY INSECTS LIKE LADYBUGS ALSO REQUIRE NECTAR, USE PLANTS:
  - YARROW
  - GROUNDSEL BUSH
  - BOLTONIA

BROWN'S MILL FOOD FOREST, ATLANTA, GA

7.1 ACRES -LARGEST

- FEATURES:
- APIARY (BEES)
- COMPOST AREA
- MUSHROOM AREA
- MEDICINAL PLANTS

BROWN'S MILL FOOD FOREST, ATLANTA, GA

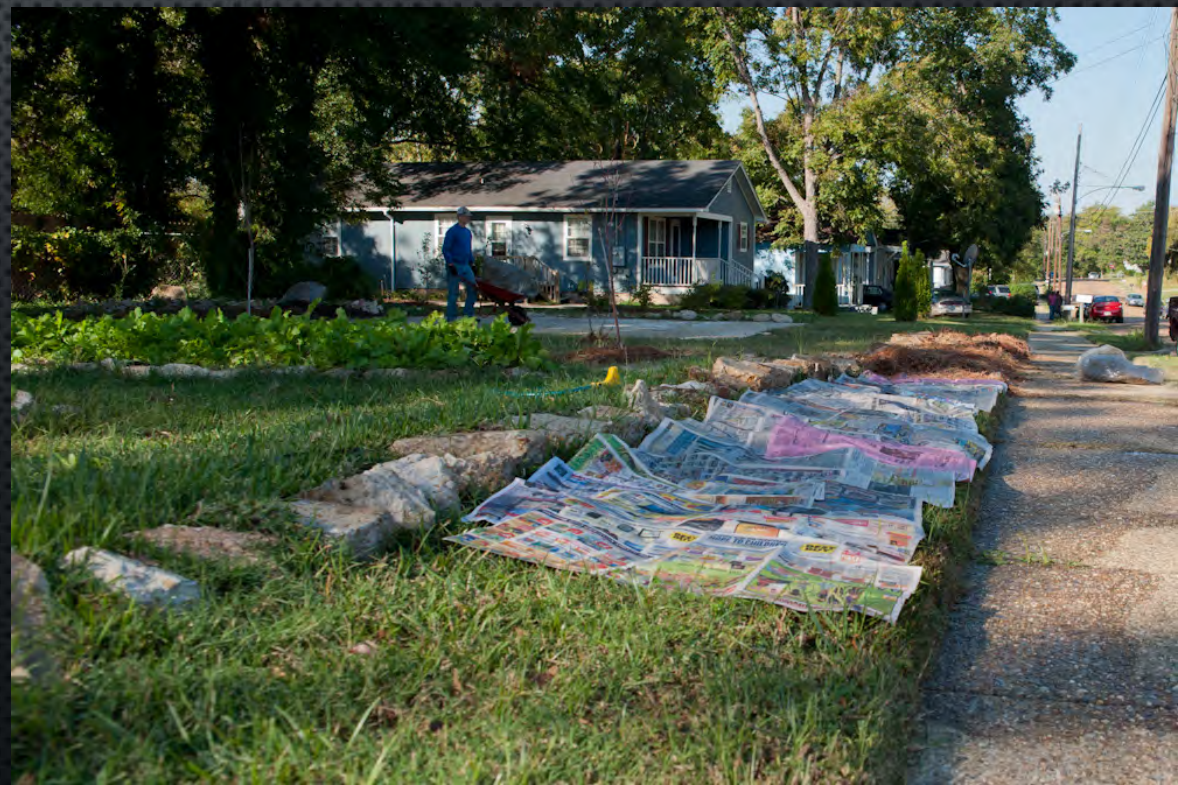
"WE ARE DELIVERING AROUND 40 BOXES OF FOOD TO PEOPLE IN THE COMMUNITY A WEEK, WITH EACH BOX WEIGHING ABOUT 40 LBS — AMOUNTING TO 1,600 POUNDS OF FOOD PER MONTH TO THE IMMEDIATE COMMUNITY"

--CELESTE LOMAX,

VOLUNTEER

JESSE GATES EDIBLE FOREST JACKSON, MS

- THE "EDIBLE FOREST" INCLUDES 26 FRUIT TREES AND MULTIPLE HERBS AND VEGETABLES. THE FORMER RESIDENTIAL LOT IS MANAGED BY LOCAL VOLUNTEERS.



TREE STREETS FOOD FOREST
JOHNSON CITY, TN

- SMALL RESIDENTIAL EMPTY LOT
- APPLES, PAW PAW,
- SERVICEBERRY, TEA TREE,
- ELDERBERRY

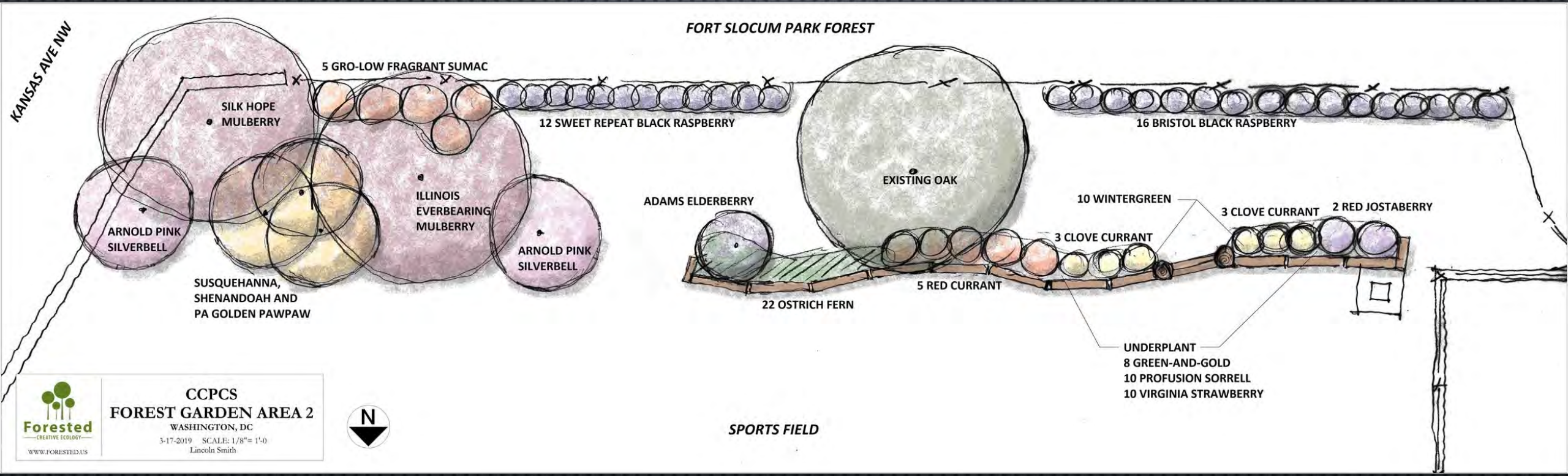
MOUNTAIN HOME FOOD FOREST
JOHNSON CITY, TN

- AFTER SCHOOL PROGRAMS FOR YOUTH

MUSCADINE, MULBERRY, BEACH PLUM, HARDY KIWI, AMERICAN HAZELNUT, ELDERBERRIES, HORSETAIL, JUJUBE, APPLES, PEARS

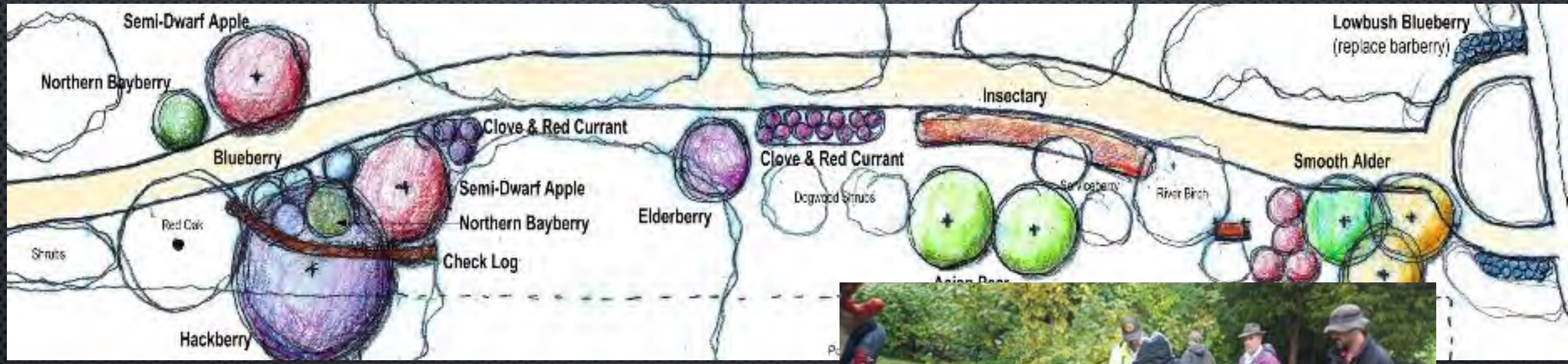
PLANNING YOUR FOOD FOREST

- CAN BE AS SIMPLE OR AS COMPLEX AS YOU WISH,



A GREAT WEBSITE FOR FOOD FOREST PLANS https://www.forested.us/design

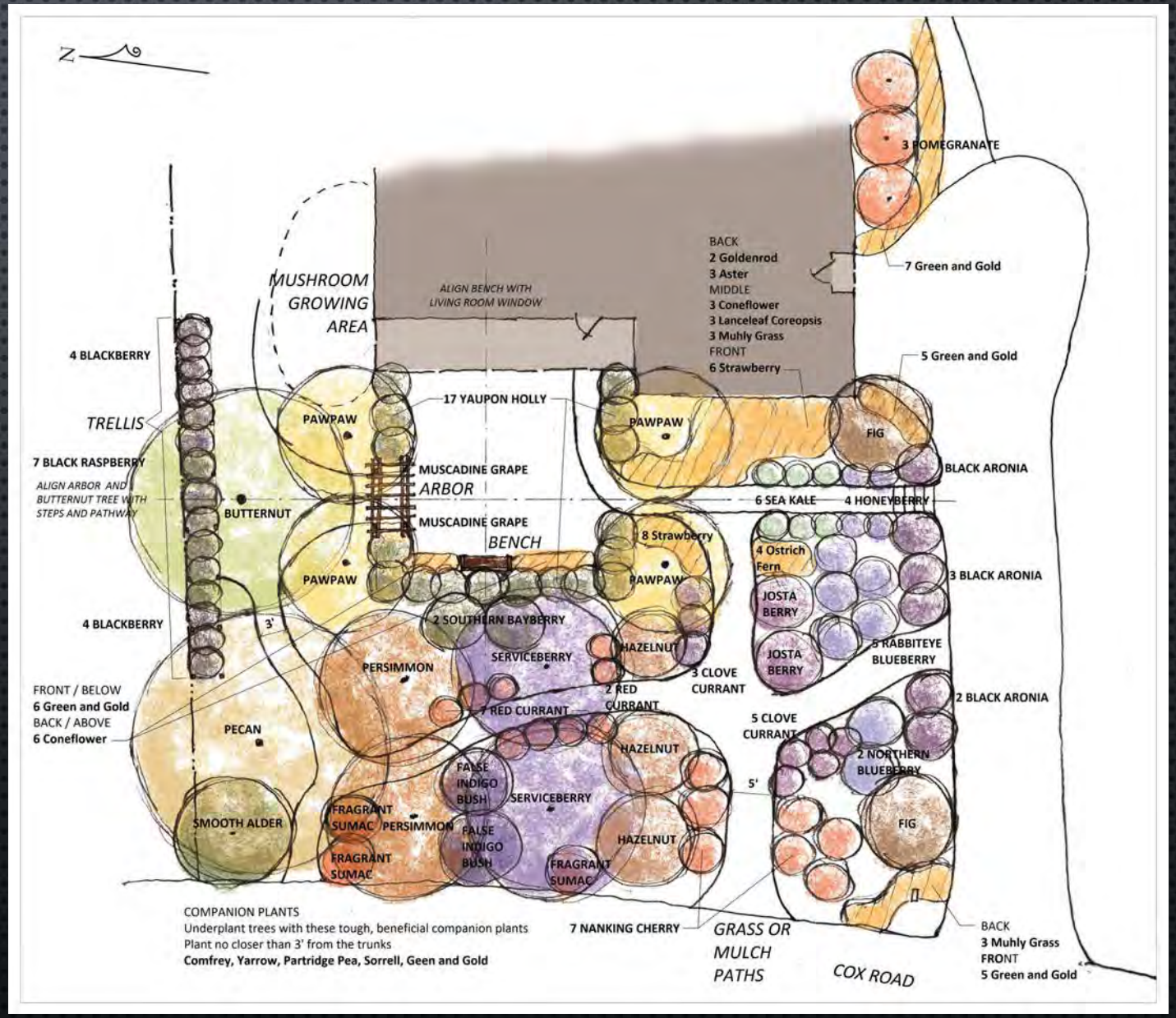
A LINEAR FOOD FOREST ALONG A SIDEWALK
COLLEGE PARK, MD



- THIS SIMPLE GARDEN FEATURES;
- INSECTARY GARDEN
- LOGS AS BED EDGES/STOP EROSION

RESIDENTIAL YARD

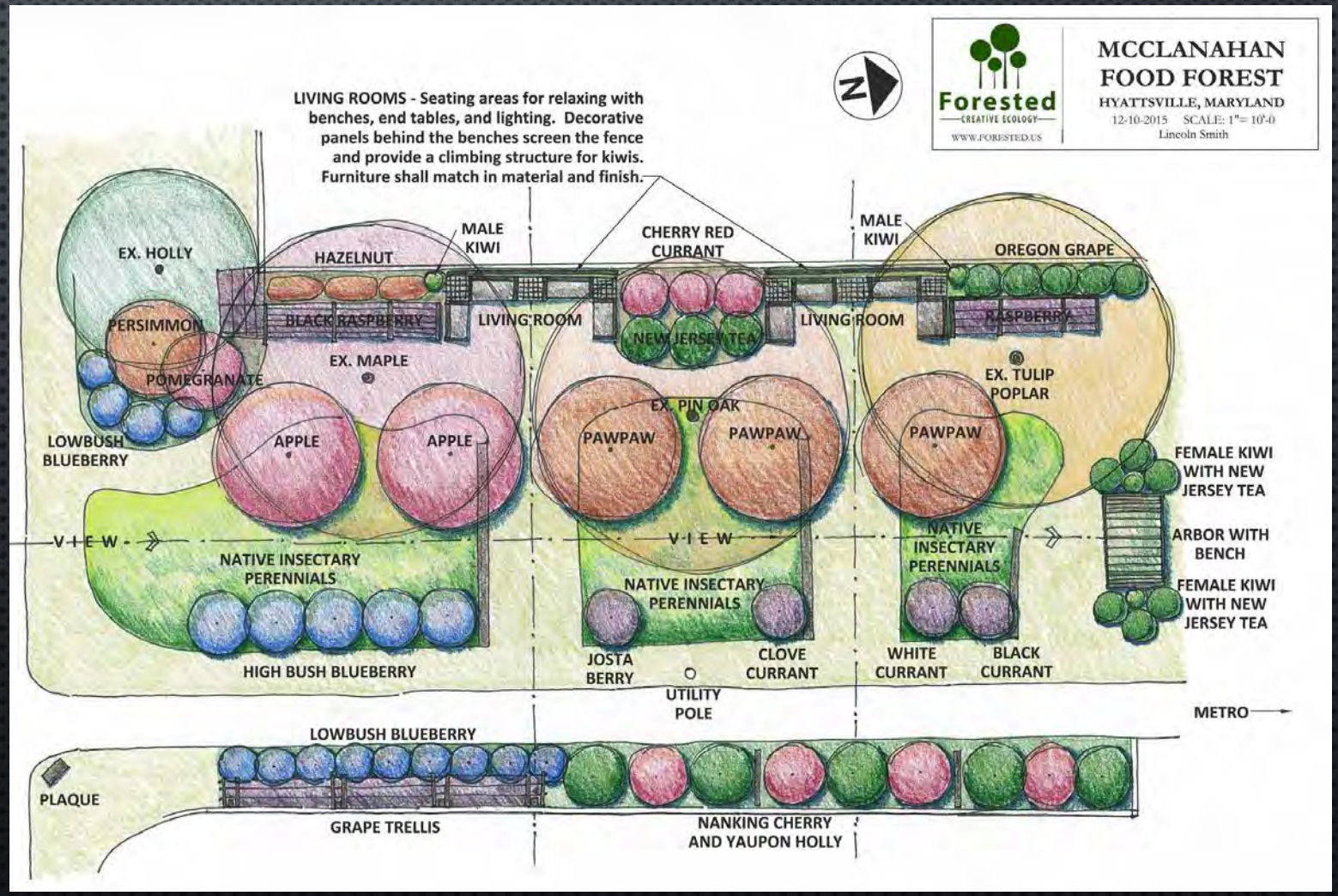
- FEATURES:
- MUSHROOM AREA
- TRELLIS PRIVACY SCREEN
- GRAPE ARBOR
- BENCHES
- WALKS



A SMALL PARK LIKE SETTING WITH SEATING IS APPROPRIATE FOR A COMMUNITY OR SCHOOL GARDEN

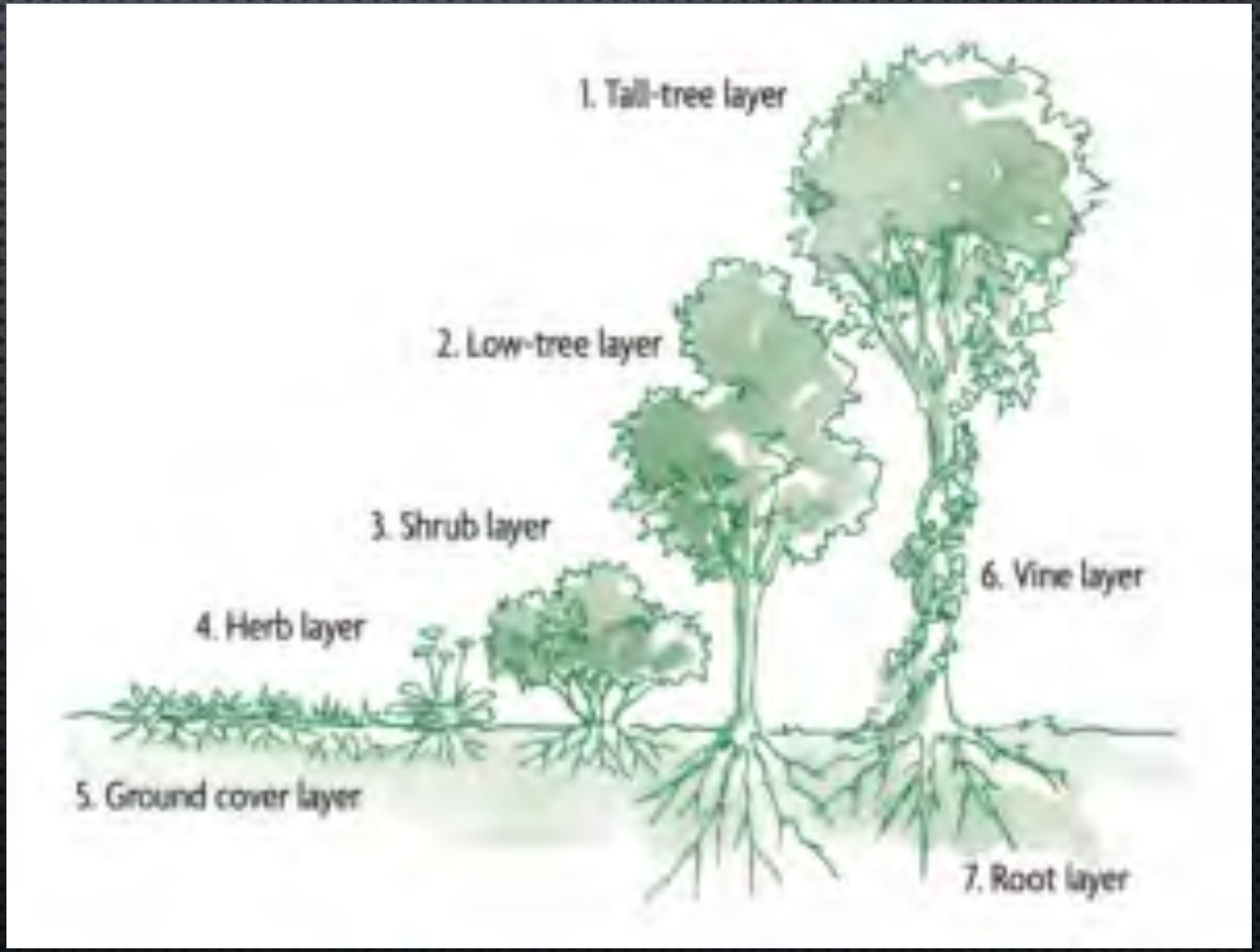
- MCCLANAHAN FOOD FOREST HYATTSVILLE, MD

- BENCHES
- LIGHTING
- TRELLIS
- ARBOR
- TABLES



MISSISSIPPI FOOD PLANTS ARRANGED BY HEIGHT

- CANOPY
  UNDERSTORY
  SHRUB
  GROUND
  VINE



ALL PRESENTATIONS AND LISTS OF PLANTS AVAILABLE AT OUR SMART LANDSCAPES PRESENTATIONS PAGE AT HTTP://EXTENSION.MSSTATE.EDU/CONTENT/SMART-LANDSCAPES-PRESENTATIONS

MISSISSIPPI STATE UNIVERSITY EXTENSION

Create an edible legacy: Make your own food forest garden

Bob Brzuszek, Extension Professor, Dept. of Landscape Architecture
Mississippi State University

FOOD FOREST GARDEN PLANT LIST

These are plants selected for Mississippi gardens but verify if they are suitable for your climate and soils in your part of the state.

CANOPY TREES (OVER 40' TALL)

- PECAN (CARYA ILLINOINENSIS)
- HICKORY (CARYA)
  - SHAGBARK
  - PIGNUT
- BLACK WALNUT (JUGLANS NIGRA)
- AMERICAN BEECH (FAGUS GRANDIFOLIA)
- CHINESE CHESTNUT (CASTANEA MOLLISSIMA)
- AMERICAN CHESTNUT (CASTANEA DENTATA)

UNDERSTORY TREES (20'-40')

- MEXICAN PLUM (PRUNUS MEXICANA)
- AMERICAN PLUM (PRUNUS AMERICANA)
- JAPANESE DOGWOOD (CORNUS KOUSA)
- SOUTHERN CRABAPPLE (MALUS ANGUSTIFOLIA)
- AM. PERSIMMON (DIOSPYROS VIRGINIANA)
- OR. PERSIMMON (DIOSPYROS KAKI)
- MAYHAW (CRATAEGUS OPACA)
- COMMON PEAR (PYRUS COMMUNIS)
- REDBUD (CERCIS CANADENSIS)
- MULBERRY (MORUS RUBRA & M. ALBA)
- CHINQUAPIN (CASTANEA PUMILA)
- CHINESE DATE (ZIZIPHUS JUJUBA)
- LOQUAT (ERIOBOTRYA JAPONICA)
- CHICKASAW PLUM (PRUNUS ANGUSTIFOLIA)
- PAW PAW (ASIMINA TRILOBA)
- BLACK CHERRY (PRUNUS SEROTINA)
- WINGED SUMAC (RHUS COPPALINA)
- TWO WING SILVERBELL (HALESIA DIPTERA)

SHRUBS (4'-20')

- AGAVE (AGAVE AMERICANA)
- BANANA (MUSA)
- BAMBOO (PHYLLOSTACHYS AUREA)
- FLOWERING QUINCE (CHANOMELES SPECIOSA)
- BLUEBERRIES (RABBITEYE, SOUTHERN HIGHBUSH)
- DEWBERRY (RUBUS TRIVIALIS)
- PRICKLY PEAR (OPUNTIA SPP.)
- RUGOSA ROSES (ROSA RUGOSA)
- WILD ORANGE (PONCIRUS TRIFOLIATA)
- YUCCA (YUCCA FILAMENTOSA)
- NATIVE BLUEBERRIES (V. ELLIOTTII, STAMINEUM)
- ELDERBERRY (SAMBUCUS CANADENSIS)
- NATAL PLUM (CARISSA GRANDIFLORA)
- RUSSIAN OLIVE (ELEAGNUS PUNGENS)

GROUNDCOVERS (UNDER 4')

EDIBLE SALAD PERENNIALS

- LAMBS QUARTERS (CHENOPODIUM ALBUM)
- PLANTAIN (PLANTAGO SPP.)
- PURSLANE (PORTULACA OLERACEA)
- PEPPERGRASS (LEPIDIUM VIRGINICUM)
- DANDELION (TARAXACUM OFFICINALE)
- BEE BALM (MONARDA DIDYAMA)
- WOOD SORREL (OXALIS SPP.)
- VIOLETS (VIOLA SPP.)
- CHICKWEED (STELLARIA MEDIA)

EDIBLE PERENNIAL VEGETABLES

- ASPARAGUS (ASPARAGUS OFFICIANALIS)
- DAYLILY (HEMEROCALLIS SPP.)
- SHALLOTS

SEASONING GROUNDCOVERS

- CREEPING OREGANO (ORIGANUM VULGARE)
- WOOD SORREL (OXALIS)
- CREEPING THYME (THYMUS)
- WILD GARLIC (ALLIUM CANADENSE)
- NATIVE MINT (PYCNANTHEMUM)
- SPEARMINT (MENTHA)
- ROSEMARY (ROSMARINUS)
- SAGE (SALVIA OFFICINALIS)
- FENNEL (FOENICULUM VULGARE)

FRUITING GROUNDCOVERS

- PARTRIDGEBERRY (MITCHELLA REPENS)
- WILD STRAWBERRY (FRAGARIA SPP.)

VINES

- CHEROKEE ROSE (ROSA LAEVIGATA)
- MUSCADINE (VITIS ROTUNDIFOLIA)
- PASSIONFLOWER (PASSIFLORA INCARNATA)
- GREENBRIAR (SMILAX ROTUNDIFOLIA, LAURIFOLIA)

NOTE: ALWAYS properly identify edible plants before consumption and do not eat any wild edible plants, herbs, weeds, trees or bushes until you have verified with your health professional that they are safe for you.

CANOPY EDIBLE FRUITING TREES (> 40 FEET TALL)

NUT TREES:

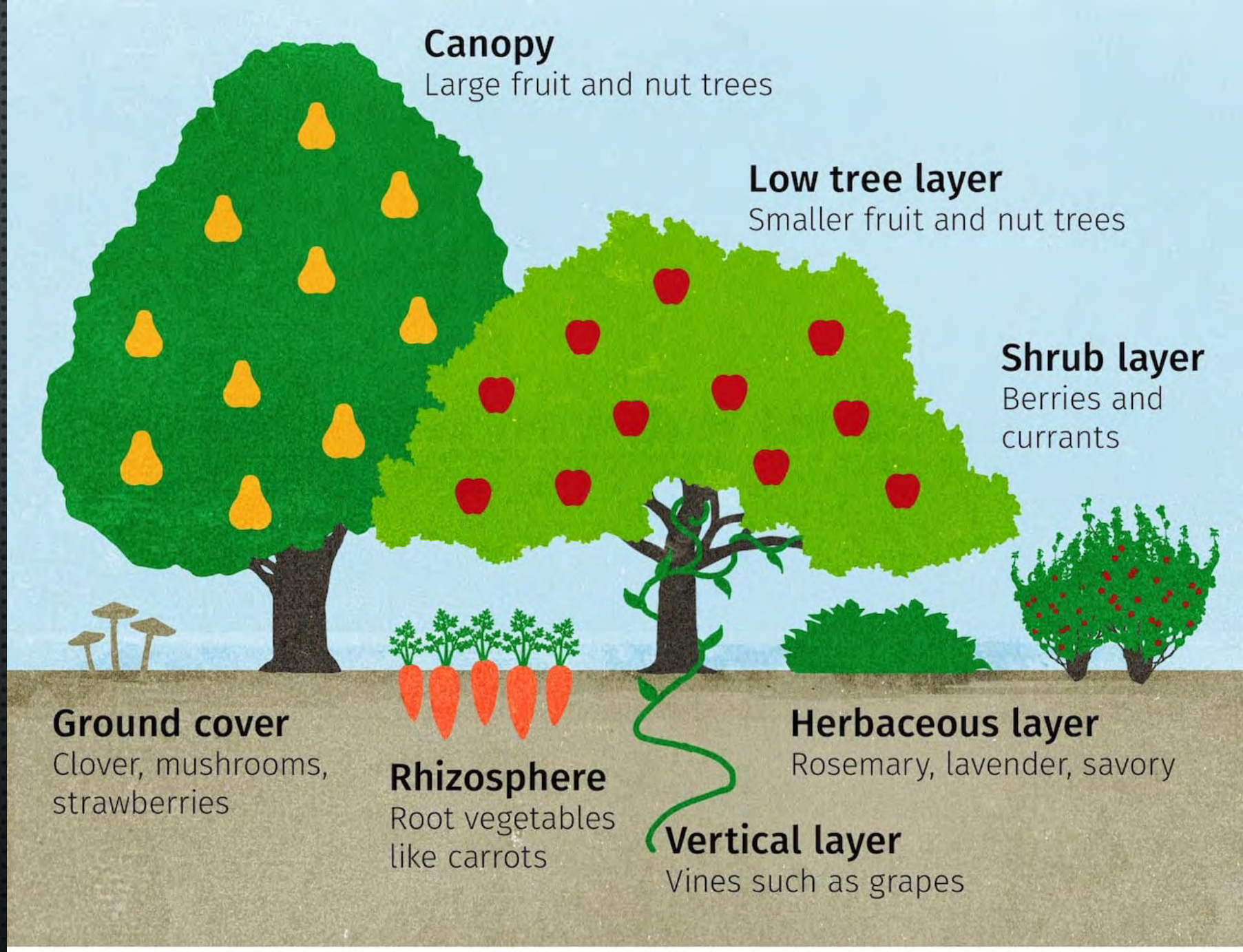
- PECAN (CARYA)
- HICKORY (CARYA)
  - SHAGBARK
  - PIGNUT
- BLACK WALNUT (JUGLANS NIGRA)
- AMERICAN BEECH
- (FAGUS GRANDIFOLIA)
- CHINESE CHESTNUT/ AMERICAN HYBRID (CASTANEA)

Disease resistant American chestnut

CANOPY TREE SPACING 25’-30’ APART

SHADES GROUND

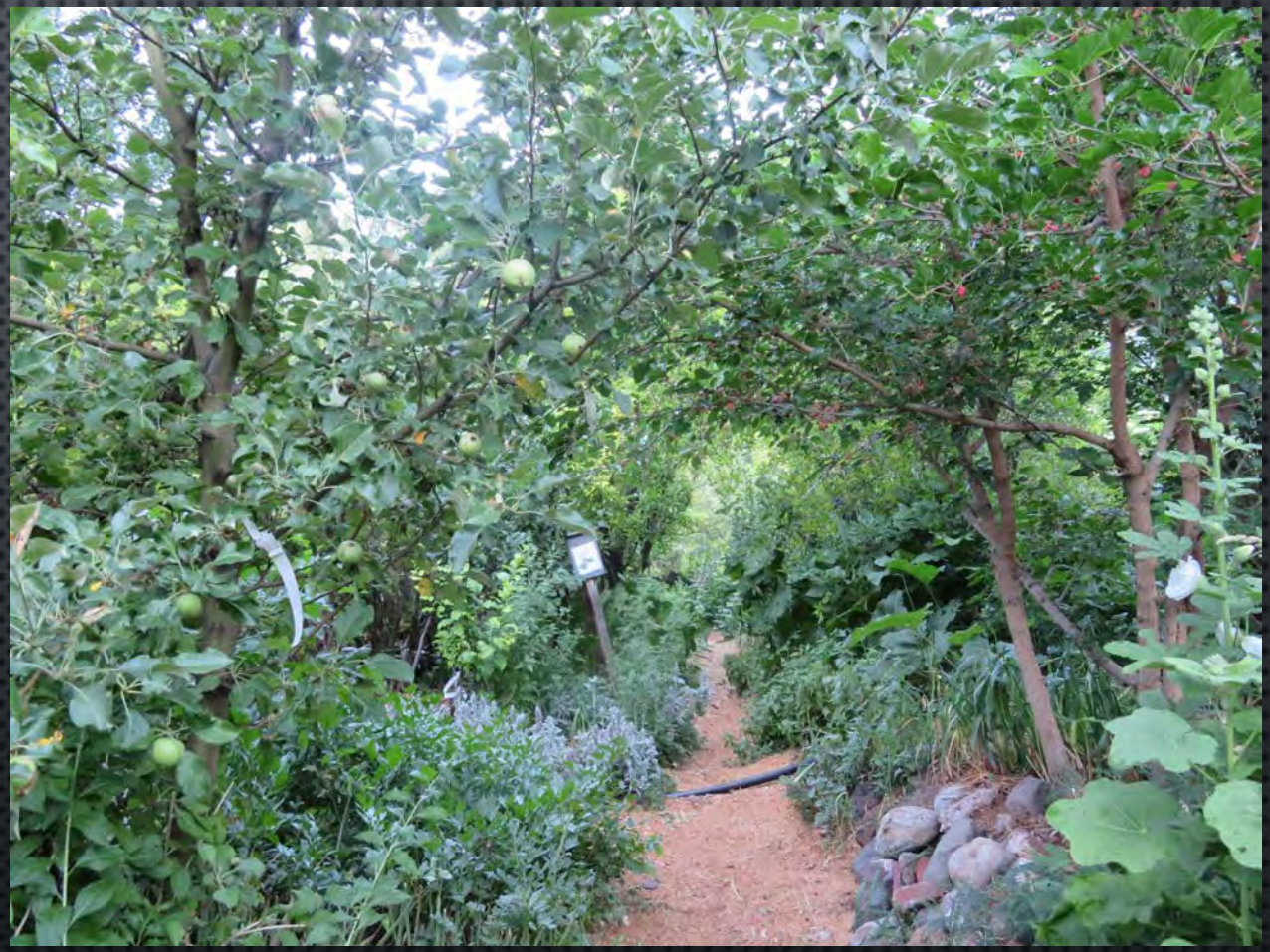
ROOM TO TUCK PLANTS UNDER



UNDERSTORY TREES 20’-40’ IN HEIGHT

MOST SMALL FRUITING TREES IN THIS HEIGHT LAYER

- MEXICAN PLUM (PRUNUS MEXICANA)
- AMERICAN PLUM (PRUNUS AMERICANA)
- JAPANESE DOGWOOD (CORNUS KOUSA)
- SOUTHERN CRABAPPLE (MALUS ANGUSTIFOLIA)
- AM. PERSIMMON (DIOSPYROS VIRGINIANA)
- OR. PERSIMMON (DIOSPYROS KAKI)
- MAYHAW (CRATAEGUS OPACA)
- COMMON PEAR (PYRUS COMMUNIS)



UNDERSTORY TREES 20’-40’ IN HEIGHT

- REDBUD (CERCIS CANADENSIS)
- MULBERRY (MORUS RUBRA & M. ALBA)
- CHINQUAPIN (CASTANEA PUMILA)
- CHINESE DATE (ZIZIPHUS JUJUBA)
- LOQUAT (ERIOBOTRYA JAPONICA)
- CHICKASAW PLUM (PRUNUS ANGUSTIFOLIA)
- PAW PAW (ASIMINA TRILOBA)
- BLACK CHERRY (PRUNUS SEROTINA)
- WINGED SUMAC (RHUS COPPALINA)
- TWO WING SILVERBELL (HALESIA DIPTERA)

LOQUAT (ERIOBOTRYA JAPONICA)

SHRUB LAYER 4’-20’ TALL

- AGAVE (AGAVE AMERICANA)
- BANANA (MUSA)
- BAMBOO (PHYLLOSTACHYS AUREA)
- FLOWERING QUINCE (CHANOMELES SPECIOSA)
- BLUEBERRIES (RABBITEYE, SOUTHERN HIGHBUSH)
- NATIVE HUCKLEBERRY (GAYLUSSACIA DUMOSA)
- DEWBERRY (RUBUS TRIVIALIS)
- PRICKLY PEAR (OPUNTIA SPP.)
- RUGOSA ROSES (ROSA RUGOSA)
- WILD ORANGE (PONCIRUS TRIFOLIATA)

SHRUB LAYER 4'-20' TALL

- YUCCA (YUCCA FILAMENTOSA)
- NATIVE BLUEBERRIES (V. ELLIOTTII, STAMINEUM)
- ELDERBERRY (SAMBUCUS CANADENSIS)
- NATAL PLUM (CARISSA GRANDIFLORA)
- RUSSIAN OLIVE (ELEAGNUS PUNGENS)

NATAL PLUM (CARISSA GRANDIFLORA)

VINES

- CHEROKEE ROSE (ROSA LAEVIGATA)
- MUSCADINE (VITIS ROTUNDIFOLIA)
- PASSIONFLOWER (PASSIFLORA INCARNATA)
- GREENBRIAR (SMILAX ROTUNIFOLIA)

YOUNG GREENBRIAR SHOOT

GROUNDCOVERS
EDIBLE SALAD PERENNIALS

- LAMBS QUARTERS (CHENOPODIUM ALBUM)
- PLANTAIN (PLANTAGO SPP.)
- PURSLANE (PORTULACA OLERACEA)
- PEPPERGRASS (LEPIDIUM VIRGINICUM)
- DANDELION (TARAXACUM OFFICINALE)
- BEE BALM (MONARDA DIDYAMA)
- WOOD SORREL (OXALIS SPP.)
- VIOLETS (VIOLA SPP.)
- CHICKWEED (STELLARIA MEDIA)

LAMBS QUARTERS
(CHENOPODIUM ALBUM)

GROUNDCOVERS
EDIBLE PERENNIAL VEGETABLES

- ASPARAGUS (ASPARAGUS OFFICIANALIS)
- DAYLILY (HEMEROCALLIS SPP.)
- SHALLOTS
- WILD STRAWBERRY (FRAGARIA SPP.)

DAYLILY (HEMEROCALLIS SPP.)

SEASONING GROUNDCOVERS

- CREEPING OREGANO (ORIGANUM VULGARE)
- WOOD SORREL (OXALIS)
- CREEPING THYME (THYMUS)
- WILD GARLIC (ALLIUM CANADEN
- NATIVE MINT (PYCNANTHEMUM)
- SPEARMINT (MENTHA)
- ROSEMARY (ROSMARINUS)
- SAGE (SALVIA OFFICINALIS)
- FENNEL (FOENICULUM VULGARE)

SPEARMINT (MENTHA)

SPECIAL CONDITIONS-- WET SOILS

- CAN YOU HAVE A FOOD FOREST IN WET SOIL TYPES OR CLAY THAT HOLDS MOISTURE? YES! GO WITH WET TOLERANT PLANTS

NUT TREES

- PECAN (CARYA)
- PIGNUT HICKORY (CARYA)

UNDERSTORY TREES

- AM. PERSIMMON (DIOSPYROS VIRGINIANA)
- MAYHAW (CRATAEGUS OPACA)
- WINGED SUMAC (RHUS COPPALINA)

SHRUBS

- NATIVE BLUEBERRIES (V. ELLIOTTII, GAYLUSSACIA DUMOSA)
- DEWBERRY (RUBUS TRIVIALIS)
- ELDERBERRY (SAMBUCUS CANADENSIS)

VINES

- MUSCADINE (VITIS ROTUNDIFOLIA)
- GREENBRIAR (SMILAX ROTUNIFOLIA)

GROUNDCOVERS

- VIOLETS (VIOLA SPP.)
- CHICKWEED (STELLARIA MEDIA)
- DAYLILY (HEMEROCALLIS SPP.)
- NATIVE MINT (PYCNANTHEMUM)
- SPEARMINT (MENTHA)

SPECIAL CONDITIONS– SHADE

CAN YOU GROW EDIBLE PLANTS IN SHADE? YES!

NUT TREES:

PECAN (CARYA)

HICKORY (CARYA)

- SHAGBARK
- PIGNUT

BLACK WALNUT (JUGLANS NIGRA)

AMERICAN BEECH (FAGUS GRANDIFOLIA)

CHINESE CHESTNUT/ AMERICAN HYBRID (CASTANEA)

UNDERSTORY TREES

JAPANESE DOGWOOD (CORNUS KOUSA)

PAW PAW (ASIMINA TRILOBA)

SHRUBS

AGAVE (AGAVE AMERICANA)

BAMBOO (PHYLLOSTACHYS AUREA)

NATIVE BLUEBERRIES (V. ELLIOTTII, STAMINEUM)

VINES

MUSCADINE (VITIS ROTUNDIFOLIA)

GREENBRIAR (SMILAX ROTUNIFOLIA)

GROUNDCOVERS

LAMBS QUARTERS (CHENOPODIUM ALBUM)

BEE BALM (MONARDA DIDYAMA)

WOOD SORREL (OXALIS SPP.)

VIOLETS (VIOLA SPP.)

NATIVE MINT (PYCNANTHEMUM)

SPECIAL CONDITIONS-- ALKALINE SOILS

NUT TREES

PECAN (CARYA)

HICKORY (CARYA)SHAGBARKPIGNUT

UNDERSTORY

MEXICAN PLUM (PRUNUS MEXICANA)

AMERICAN PLUM (PRUNUS AMERICANA)

SOUTHERN CRABAPPLE (MALUS ANGUSTIFOLIA)

AM. PERSIMMON (DIOSPYROS VIRGINIANA)

REDBUD (CERCIS CANADENSIS)

MULBERRY (MORUS RUBRA & M. ALBA)

CHINQUAPIN (CASTANEA PUMILA)

CHINESE DATE (ZIZIPHUS JUJUBA)

LOQUAT (ERIOBOTRYA JAPONICA)

CHICKASAW PLUM (PRUNUS ANGUSTIFOLIA)

SHRUBS

AGAVE (AGAVE AMERICANA)

FLOWERING QUINCE (CHANOMELES SPECIOSA)

PRICKLY PEAR (OPUNTIA SPP.)

RUGOSA ROSES (ROSA RUGOSA)

WILD ORANGE (PONCIRUS TRIFOLIATA)

YUCCA (YUCCA FILAMENTOSA)

RUSSIAN OLIVE (ELEAGNUS PUNGENS)

VINES

CHEROKEE ROSE (ROSA LAEVIGATA)

GROUNDCOVERS

LAMBS QUARTERS (CHENOPODIUM ALBUM)

PLANTAIN (PLANTAGO SPP.)

PURSLANE (PORTULACA OLERACEA)

DANDELION (TARAXACUM OFFICINALE)

CHICKWEED (STELLARIA MEDIA)

DAYLILY (HEMEROCALLIS SPP.)

CREEPING OREGANO (ORIGANUM VULGARE)

FOOD FOREST ESTABLISHMENT- GETTING STARTED

- 1. IDENTIFY EXISTING SITE CONDITIONS
  - SOIL TYPE AND DRAINAGE
  - HYDROLOGY- HOW WET OR DRY DOES THE AREA GET?
  - AMOUNT OF AVAILABLE SUNLIGHT
  - IDENTIFY EXOTIC INVASIVES (PRIVET, KUDZU, CLIMBING FERN, COGON GRASS, ETC.)
- 2. REMOVE INVASIVE PLANTS
- 3. DEVELOP SUITABLE PLANT LIST
- 4. PLAN FOR FALL PLANTING
  - MULCH
  - PROVIDE INITIAL WATERING AT PLANTING

WEED WRENCH USED TO REMOVE PRIVET

FOOD FOREST ESTABLISHMENT- MANGEMENT AFTER PLANTING

WATER FOR FIRST YEAR DURING DROUGHT CONDITIONS

- USE SELF WATERING BAGS FOR TREES AND OCCASIONALLY REFILL

MONITOR FOR INVASIVE SPECIES ESTABLISHMENT

SELF WATERING BAG SLOW RELEASES WATER TO TREE

FOOD FOREST ESTABLISHMENT- MANGEMENT AFTER PLANTING

WILDLIFE DAMAGE

- PERIMETER FENCING (6'HEIGHT RECOMMENDED FOR DEER)
- USING TREE GUARDS TO PREVENT BARK DAMAGE (TUBES, WRAP, OR MESH)
- OR, JUST PLANT MORE TREES!

TREE BARK PROTECTION

FOOD FOREST ESTABLISHMENT- MANGEMENT AFTER PLANTING

- USE OF FERTILIZERS?????
  - CERTAINLY HELPS WITH FRUIT PRODUCTION, ANY FRUIT TREE FERTILIZER IS SUFFICIENT

Use mulches

Just as in a forest, leaving fallen leaves and having a healthy soil food web of insects and fungi is beneficial

AS WITH ANY GARDEN DESIGN—HOW YOU DO IT IS UP TO YOU

I ENCOURAGE YOU TO PLANT A FOOD FOREST FOR YOURSELF AND OTHERS TO ENJOY

DISCLAIMER

- NOTE: ALWAYS PROPERLY IDENTIFY EDIBLE PLANTS BEFORE CONSUMPTION AND DO NOT EAT ANY WILD EDIBLE PLANTS, HERBS, WEEDS, TREES OR BUSHES UNTIL YOU HAVE VERIFIED WITH YOUR HEALTH PROFESSIONAL THAT THEY ARE SAFE FOR YOU.

More food forest resources

General principles

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

Books

Edible Forest Gardens, Volume 2: Ecological Design and Practice for Temperate Climate Permaculture by Dave Jacke and Eric Toensmeier

Step by step guide

https://permacultureapprentice.com/creating-a-food-forest-step-by-step-guide/

Example food forests

https://www.shareable.net/20-urban-food-forests-from-around-the-world/

Sample plans

https://www.forested.us/design

For more Smart Landscapes info and media, be sure to visit:

1. Mississippi Smart Landscapes website available at http://extension.msstate.edu/smartlandscapes

MISSISSIPPI STATE UNIVERSITY™ EXTENSION

2. Our Facebook page at https://www.facebook.com/smartlandscapesmsu/

BACKYARD BIODIVERSITY SYMPOSIUM WEDNESDAY OCTOBER 20 9 AM TO NOON

BOST AUDITORIUM MISSISSIPPI STATE CAMPUS

The 66th Edward C. Martin Landscape Symposium

Wednesday, October 20, 2021
9 a.m. to Noon
Bost Auditorium
Mississippi State University
Starkville, Mississippi

The Life in Your Backyard

"*Our privately owned land and the ecosystems upon it are essential to everyone's well-being, not just our own.*"- Doug Tallamy

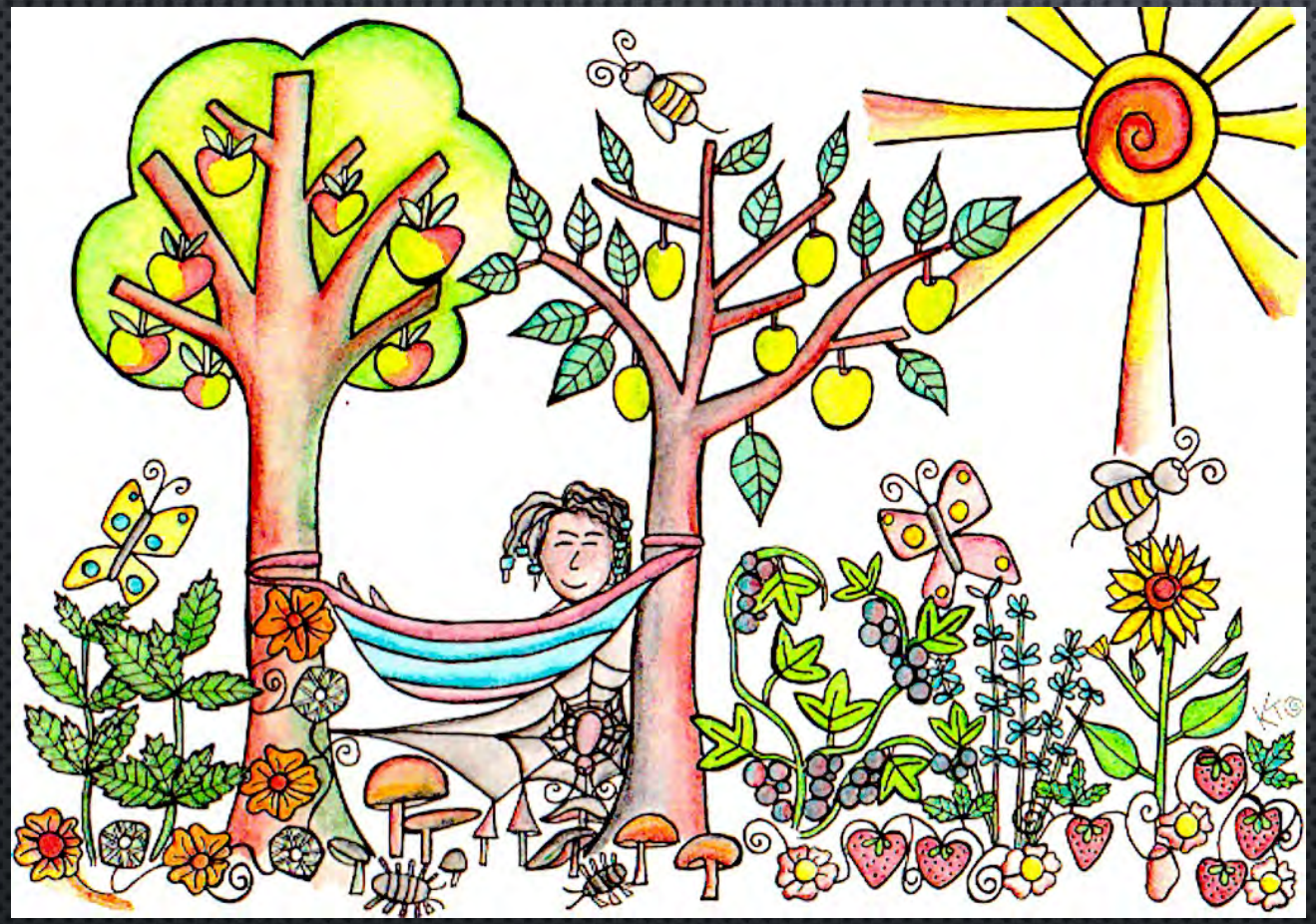
Your garden can make a difference! Developing your landscape with wildlife in mind has been proven to enhance local biodiversity. Speakers for this year's symposium are experts in wildlife/plant relationships and will share with you how to make your property more critter-friendly.

Susan Haltom
Author of *One Writer's Garden*

Dr. JoVonn Hill
Director of the Mississippi Entomological Museum
Mississippi State University

Dr. Richard Brown
Retired, Emeritus Professor
W.L. Giles Distinguished Professor
Mississippi State University

Sponsored by:
MSU Department of Landscape Architecture
Garden Clubs of Mississippi, Inc.
Mississippi State University Extension



Planting Design for New Landscapes or Renovation Projects

Pat Drackett, Asst Prof & Director, Crosby Arboretum