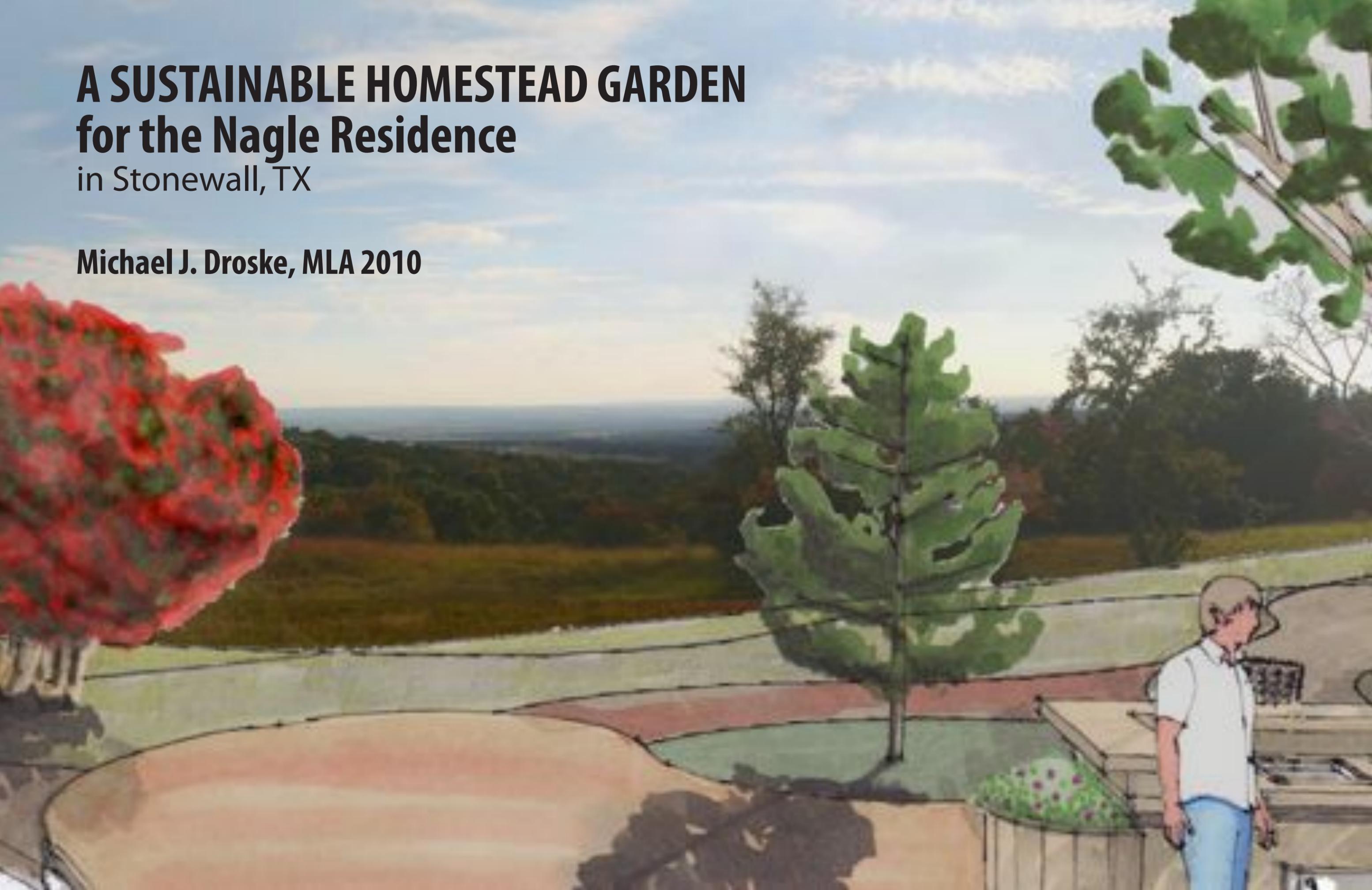


A SUSTAINABLE HOMESTEAD GARDEN for the Nagle Residence in Stonewall, TX

Michael J. Droske, MLA 2010



Landscape Plan



The majority of existing trees will be preserved, except the small junipers to be removed for pond excavation and home construction.

Largest trees are planted on the North side to serve as a windbreak and to maximize sunshine in the forest garden.

All trees are planted along the contours, and low (6") terraces will be constructed along the contours from limestone rubble excavated from pond.



Home and Kitchen Garden



Zone 1: Home and Kitchen Garden

- Pear trees (*Pyrus communis* 'Moonglow'), Nectarines (*Prunus persica* var. *nucipersica* 'Crimson Gold'), and Apricots (*Prunus armeniaca* 'Blenheim') flank the main path, drawing the eye towards the forest garden.
- Texas Redbuds (*Cercis canadensis* var. *texensis*) provide a striking, intense pink focal point in the early spring near the main gate through the deer fence.
- Dwarf Wax Myrtle (*Myrica cerifera* var. *pumila*) fixes nitrogen in the soil, improving its availability for fruit trees and other plants.
- Agarita (*Berberis trifoliolata*) is a native, drought-tolerant shrub that produces edible berries that are excellent in jams and jellies.

Mexican plum (*Prunus mexicana*) is a native, drought tolerant fruit tree with attractive white to white-pink flowers that appear before the leaves in spring.

Echinacea (*Echinacea purpurea*) is a native wildflower that can act as a ground cover. Its roots have immune-system-enhancing properties.



Southwest Patio and Outdoor Kitchen



— Olive trees (*Olea europaea* 'Pendolino') frame the patio view and provide an attractive source of dappled shade.

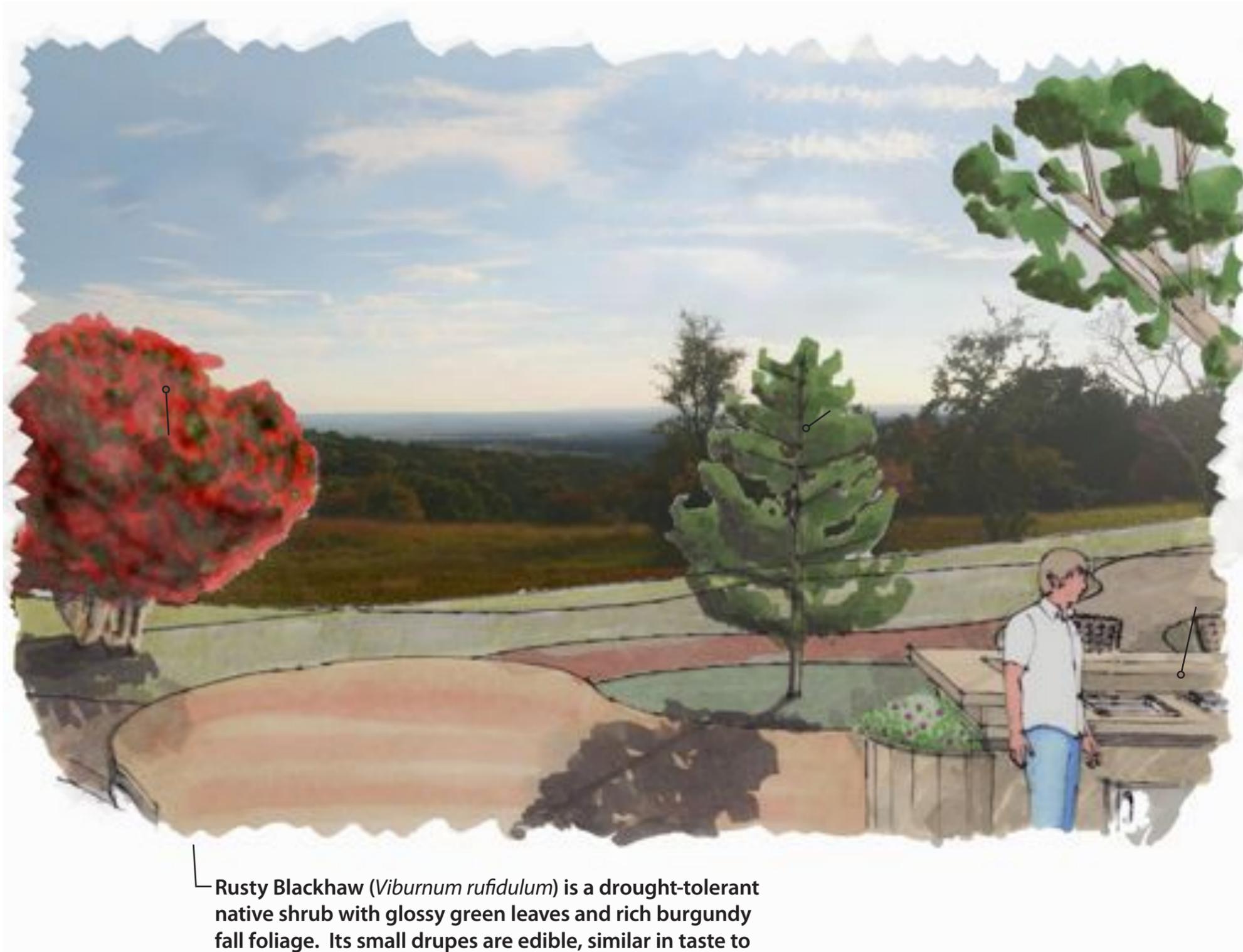
— Leadplant (*Amorpha canescens*) is a ground cover shrub that fixes nitrogen, attracts pollinators, and has showy purple blooms.

Zone 3: Wildlife

- Passion vine (*Passiflora incarnata*) has indescribably complex flowers, edible fruit, and is a host plant for the Gulf Fritillary butterfly.
- Texas Mountain Laurel (*Sophora secundiflora*) is a native, evergreen small tree with fragrant spring blooms.
- Oregano (*Origanum vulgare*) and most other aromatic herbs are moderately deer resistant.
- Rosemary (*Rosmarinus officinalis*) is planted around the outdoor kitchen area, and within close proximity to the indoor kitchen. It is not only a deer-resistant shrub, but also can be a good nectar source for pollinators.
- Agarita (*Berberis trifoliolata*) is a native, deer-resistant shrub that produces edible berries that are excellent in jams and jellies.



Southwest View from House



— Rusty Blackhaw (*Viburnum rufidulum*) is a drought-tolerant native shrub with glossy green leaves and rich burgundy fall foliage. Its small drupes are edible, similar in taste to raisins, but they are nearly all seed. However, they are a major attractant for birds.

Zone 3: Wildlife

— Existing Juniper (*Juniperus ashei*) can be retained for shade or removed to improve the view. It is a valuable source of wildlife food and shelter.

— The Outdoor Kitchen provides a functional outdoor living space, including a grill, a gas cooktop, a sink, and a refrigerator. The bar faces the vista to the southwest, so the cook can enjoy panoramic views and a fully-equipped space for food preparation.



Chicken Moat and Rainbarn



Zone 2: Forest Garden

Existing Texas Live Oak (*Quercus fusiformis*) provides shade and food supplement for chickens.

The Rainbarn will house a cistern that provides a source of drip irrigation for the forest garden. It is shaded to reduce water temperature and minimize the associated problems with algae and bacteria. It will also be centrally located as a source of equipment, near the compost pile and chicken/duck activity areas.

Olive trees (*Olea europaea* 'Pendolino' and 'Leccino') are planted on the leeward side of the barn to protect them from cold winter winds. Olives have success during La Niña weather pattern years, but have difficulty setting flowers during El Niño years in this region because of the lack of diurnal temperature fluctuations during winter.

Therefore, olives should be thought of as attractive ornamental trees but not be relied upon as a major source of income.

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Grapevines (*Vitis vinifera* 'Black Spanish' and 'Champanel') grow up and over the arbor.

The "Chicken Moat" is a chicken run consisting of two parallel chicken wire fences with an arbor spanning them, providing protection from deer and other varmints.*

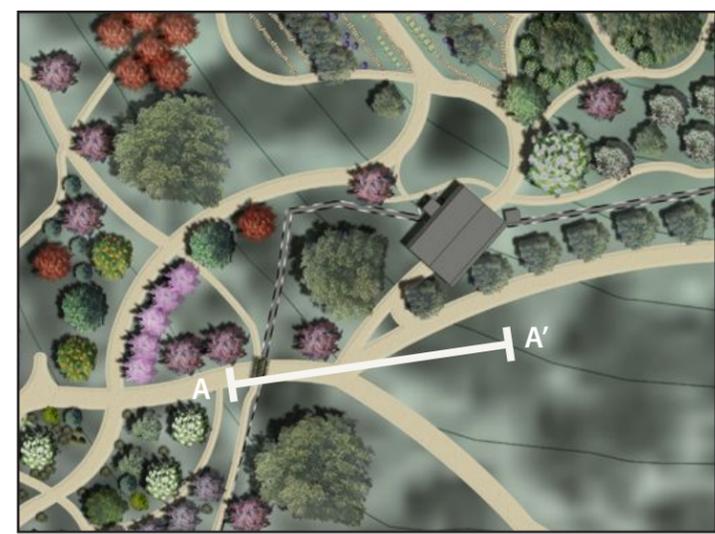
Redbud (*Cercis canadensis var. texensis*) has edible flowers and green pods, and provides a source of forage for chickens.

Comfrey (*Symphytum officinale*) is a nitrogen-hungry herb that can tolerate fresh chicken manure. It is very deep-rooted and acts as a dynamic accumulator, mining many nutrients from the soil into its quickly-degradable leaves, which are an excellent source of potassium (2-3 times more than manure). Combined with chicken manure, comfrey is an ideal compost-builder.

SCALE: 1'=12'



* Chicken moat idea adapted from Joe Jenkins, referenced in Jacke and Toensmeier's "Edible Forest Gardens"



KEY MAP

Pond Edge



Pecan (*Carya illinoensis*) provides shade for the pond edge, reducing algae buildup, and provides a cooling effect for the bees that make their home at the pond edge, as well as a tranquil refuge after a day's work in the garden.

Zone 2: Forest Garden

- Mayhaw (*Crataegus aestivalis*) is a native Texas source of fruit used in jellies. Though uncommon in the hill country, the pond edge provides enough moisture for this small tree to survive.
- The irregular edge of the pond provides increased habitat for emergent and transitional aquatic plants, which include several sources of food for ducks. Suggested species are Softstem Bulrush (*Scirpus validus*), American Lotus (*Nelumbo lutea*), and Spatterdock (*Nuphar lutea*).



Central Forest Garden Path



Zone 2: Forest Garden

- Olive trees (*Olea europaea* 'Pendolino,' 'Leccino,' and 'Coratina'), though marginal in this region, provide a stately elegance to the orchard's main axis.
- Loquats (*Eriobotrya japonica*) are evergreen, drought tolerant trees that produce unique apricot-like fruit and extremely fragrant flowers.



- Blackberries (*Rubus fruticosus* 'Navajo,' 'Rosborough,' 'Brazos,' and 'Shawnee' line the main garden path for convenient harvest. Ground surface should be mulched to prevent weed competition.

— Blazing Star (*Liatis punctata*) attracts butterflies, is very drought-tolerant due to its taproot, and makes an excellent cut flower.

— Jujube trees (*Ziziphus jujuba*) and Pear trees (*Pyrus communis* 'Orient') surround a central node at the intersection of the 8' wide main path and the 4' wide secondary path, providing a shaded activity area accessible by vehicles.



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Pond Edge and Pollinators

Zone 2: Forest Garden



- Pecan (*Carya illinoensis*) is planted near the pond's edge to satisfy its moisture requirements.
- Two species of Persimmon, *Diospyros americana* and *Diospyros kaki*, are planted further uphill.
- Elderberries (*Sambucus canadensis*) provide a valuable nectar source for honeybees from late spring to early summer. The flowers and fruits are also excellent for making wine and jelly.
- Beehives are located in an area that receives morning sun to stimulate bee activity and afternoon shade to prevent dehydration. A water source is located within 15' and sources of nectar are nearby, inviting bees into the garden for pollination.
- Mayhaw (*Crataegus aestivalis*) is a Texas native, edible early-ripening hawthorn that prefers low, wet areas. It flowers from late February to March, providing an early source of nectar for honeybees. Mayhaw jelly is a rural Southern tradition.

