Edible Landscaping and Forest Gardening

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Edulis Designs

Edible Landscaping

- Merges food-producing, ornamental, and native plants for a functional, attractive landscape.
- Attracts wildlife/ boosts biodiversity
- Can be designed for spaces of all sizes.

Forest Garden

- A productive human guided forest ecology which utilizes the patterns found in nature.
  - Developed by utilizing the natural process of ecological succession.
  - A layered food production system that is perennial and low-maintenance.


NOTICE

Maintained Disorder

Lawns are the #1 Crop in U.S.

- 40 million acres (63,000 square miles) of lawn occupying about 2% of the surface of the continental U.S.
- More lawns than irrigated corn (estimated 3x more acres of lawns than irrigated corn)
- Well-manicured lawn uses up to 240 gallons of water per person per day (average).
- Most regions outdoor water use already reaches 50-75% of the total residential use.

Milesi, C., C.D. Elvidge, J.B. Dietz, B.T. Tuttle, R.R. Nemani, and S.W. Running.
A Strategy for Mapping and Modeling the Ecological Effects of US Lawns.
NASA Ames Research Center

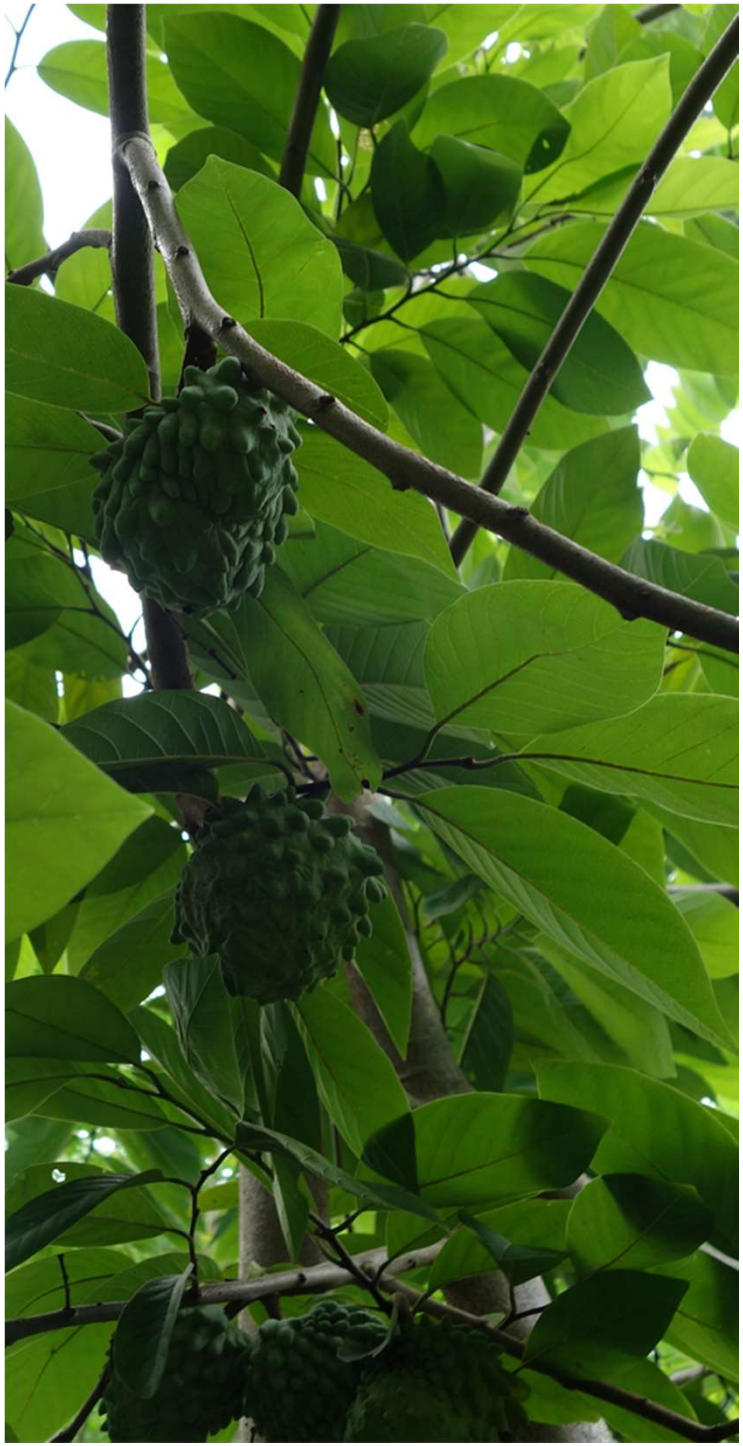
7 Layers of a Food Forest

- Canopy
- Understory
- Shrub
- Herb
- Groundcover
- Root
- Vine

1st Layer - The Canopy

- 30+ feet tall
- The highest layer of trees
- Benefits:
  - Shade
  - Protection
  - Fruit

Examples: Lychee, mango, black sapote, jackfruit, ice cream bean



2nd Layer - Understory Layer

- 15 to 30 feet tall
- Small trees and large shrubs, mostly planted between and below the canopy trees.
- Benefits:
  - Wind Break
  - Recycled for their mulch
  - Some fix nitrogen

Examples: annonas, guava, jabuticaba, beautyberry, papaya, dwarf citrus

3rd Layer - Shrub Layer

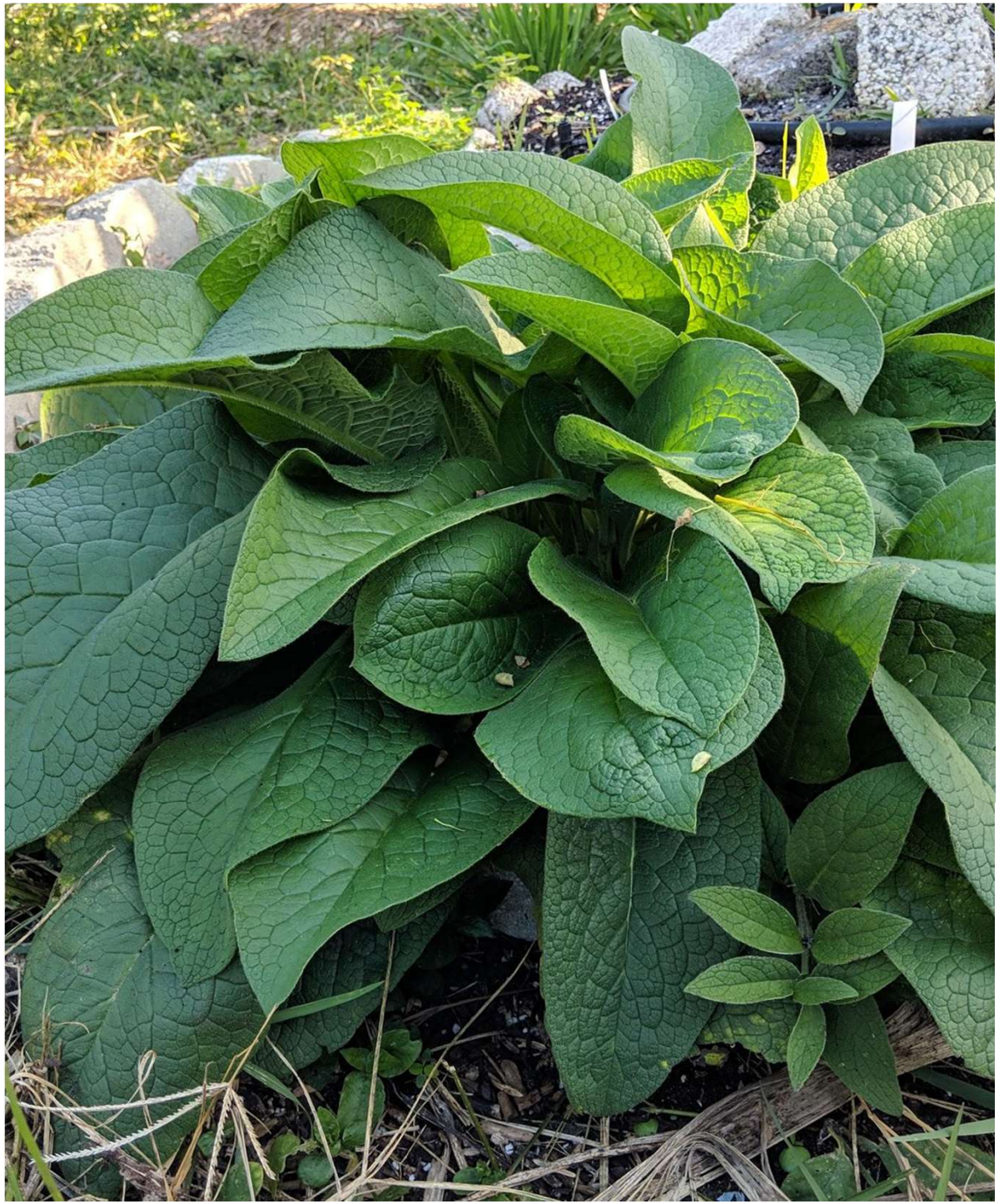
- 3 to 15 feet tall
- Planted between the taller trees according to shade tolerance.
- Benefits:
  - Wildlife Attracting
  - Some fix nitrogen

Examples: Pigeon pea, blueberry, wild coffee, kumquat, chaya, katuk, Barbados cherry, Eugenias

4th Layer - Herbaceous Layer

- Non-woody vegetation, perennial vegetables, flowers, culinary herbs, mulch plants.

Examples: Okinawan spinach, sunn hemp lemongrass, comfrey, tulsi



5th Layer – Ground Cover Layer

- Conserve and cycle large quantities of nutrients.
- Prevent erosion, weeds / grass

Examples: Perennial peanut,

sunshine mimosa, cowpea,

Seminole pumpkin, longevity spinach

6th Layer – Rhizosphere Layer

- The soil zone that surrounds and is influenced by the roots of plants.

Examples: Cassava, taro, gingers, sweet potato, yacon

7th Layer – Vine Layer

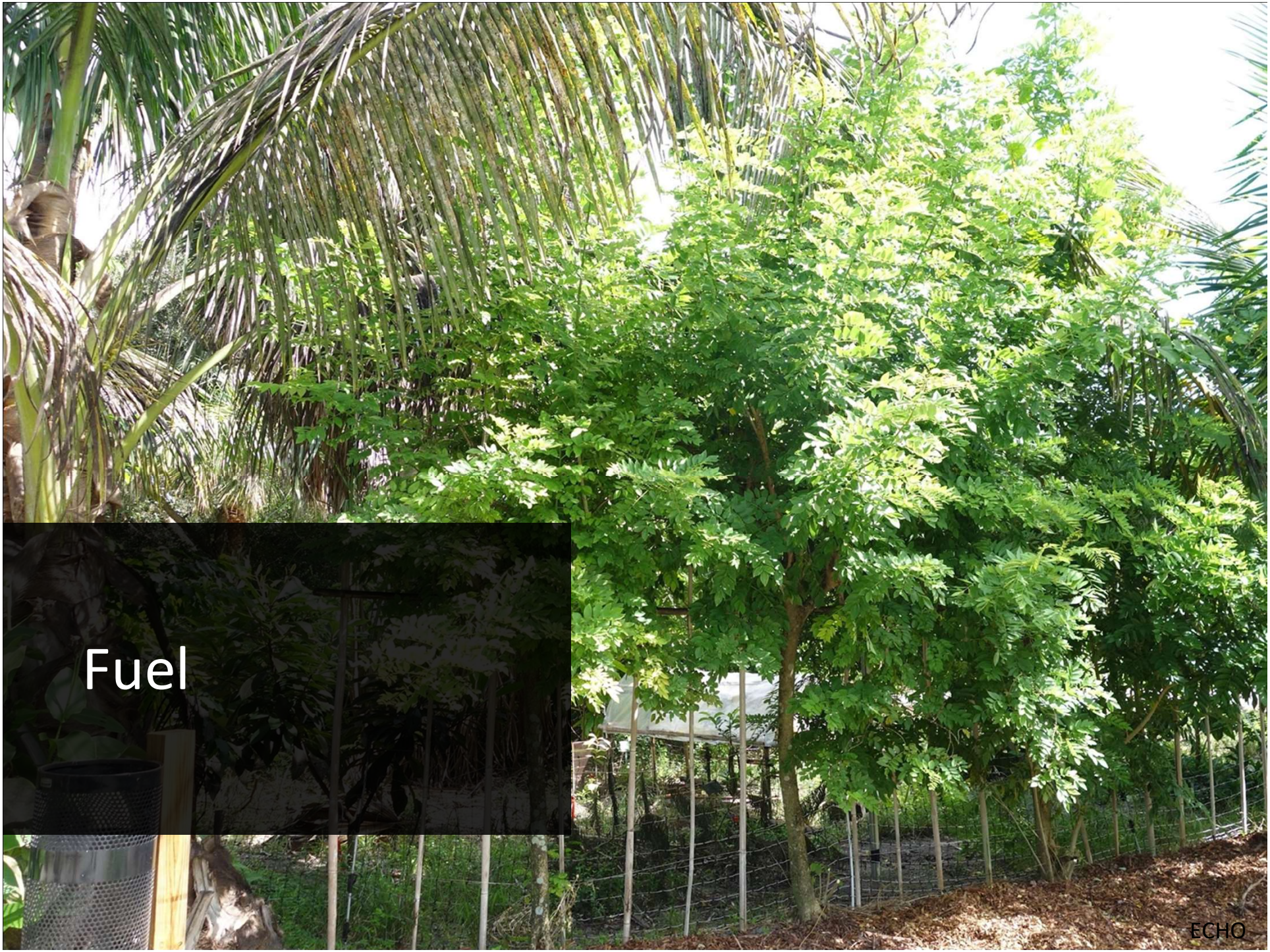
- Can develop in any of the other layers or in all of them (might need guidance).
- Can become parasitic if they end up reducing host's health.

Examples: Yams, luffa, chayote, grapes, passion fruit, lablab

7 Functions of a Forest Garden

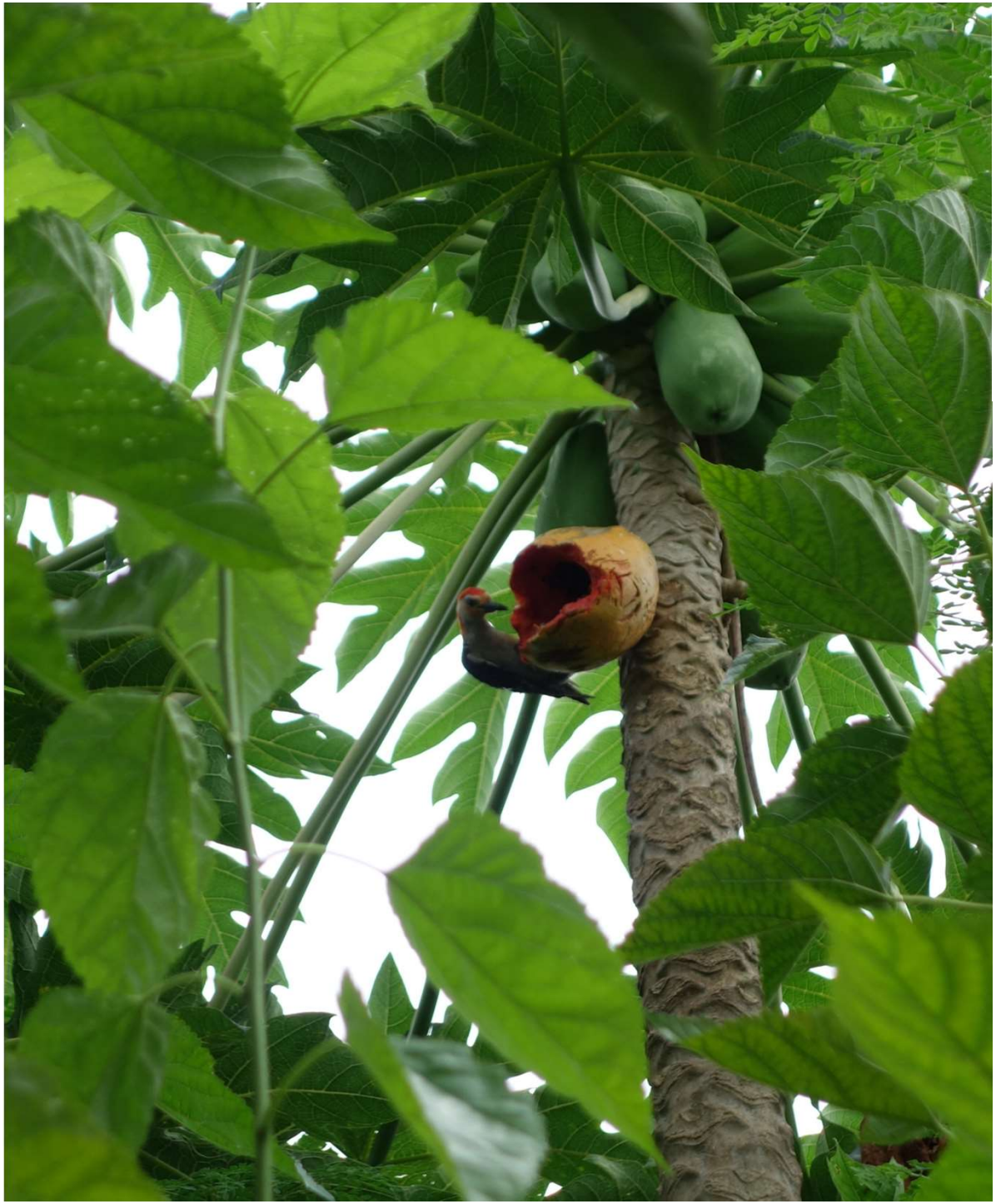
1. Food
2. Fuel
3. Fiber
4. Fodder: insectary, wildlife fodder, livestock fodder
5. Fertilizer: dynamic accumulators, biomass plants, nitrogen fixers
6. Pharmaceuticals
7. Fun

Food


Fuel
ECHO

Fiber

Fodder



Fertilizer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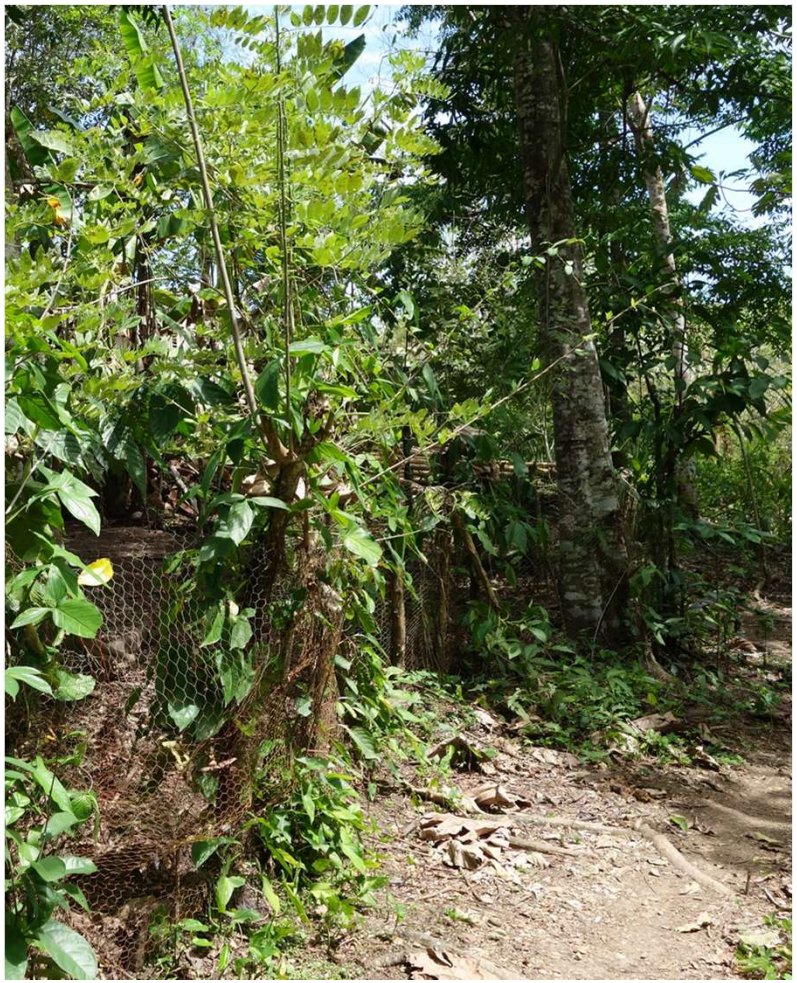
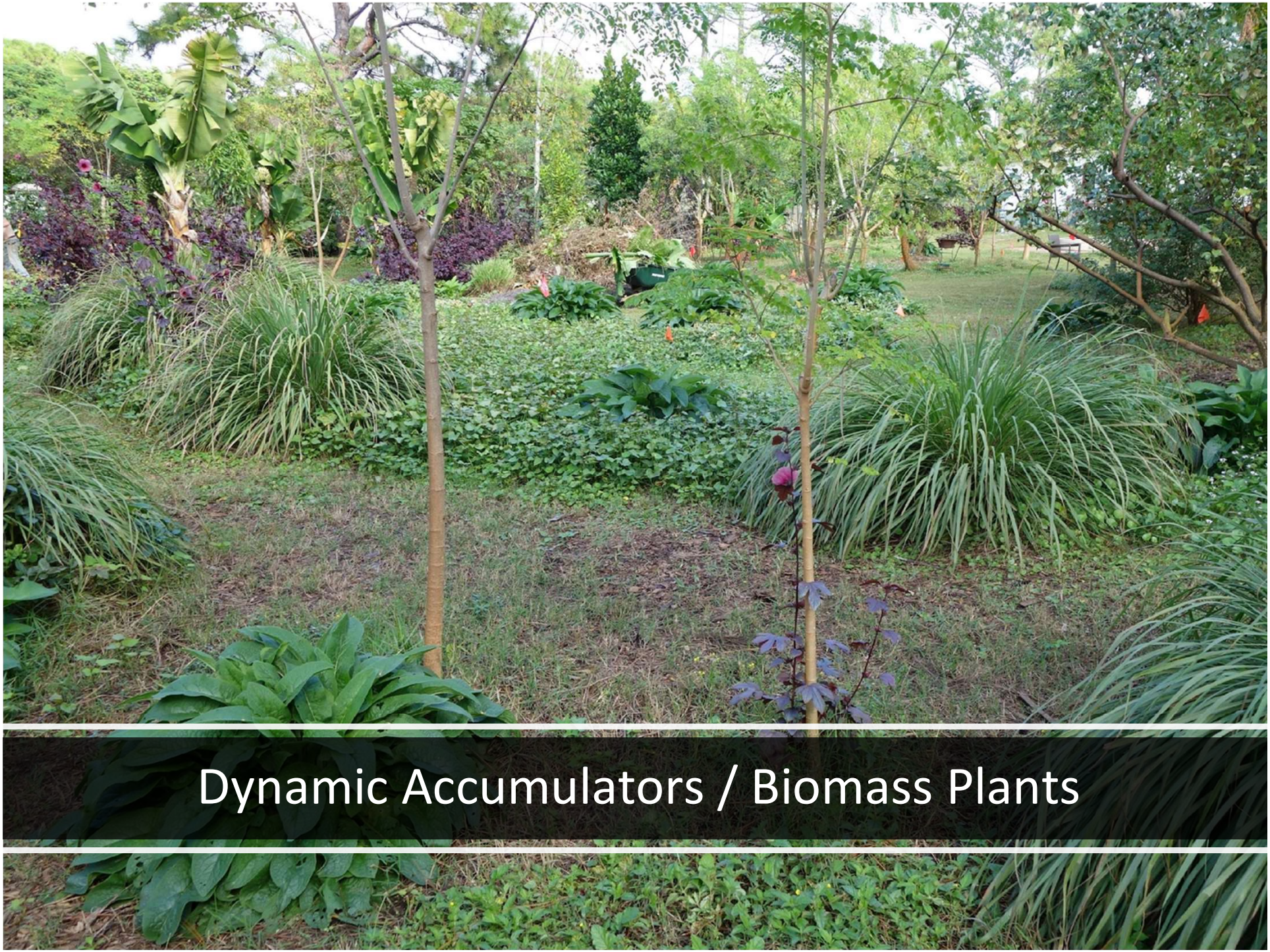
Fun

Guild Elements

- Nitrogen fixers
- Dynamic accumulators / Biomass Plants
- Beneficial insect attractors
- Aromatic pests confusers
- Ground covers

Nitrogen Fixers





Dynamic Accumulators / Biomass Plants

Beneficial Insect Attractors

Aromatic Pests Confusers

Ground Covers

Photo: Geoff Lawton

Thank You!

http://edulisdesigns.com/

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Edible Ecological Landscapes

Sources

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