

# Agricultural Sustainability

Personal Environmental Leadership  
for your Home or Homestead



Planbook to help students learn concepts and practical applications  
plus plan and take action to grow healthy foods sustainably

**Dr. David Dyson**  
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Home of Life Leaders Ranch and Farm Education (nonprofit)

**Triple D**  
RANCH & FARM



# Purpose and Publishing

## Title

**Agricultural Sustainability and Personal Environmental Leadership for Your Home or Homestead**

Subtitle: Planbook to help students learn concepts and practical applications plus plan and take action growing healthy foods sustainably.

Uses: companion resource handout for classes, seminars, workshops, video learning, and coaching.

## Edition

2<sup>nd</sup> edition.

Developed to present first to students at the University of Montevallo in the classes of Caplow and Crider, "Environment and Society."

## Author

Dr. David Dyson, Triple D Ranch & Farm, Life Leaders Institute, professional practice as author & speaker.

## Mission for this Planbook and Seminar

To inspire knowledge and action applying principles and best practices of healthy sustainable agriculture and personal environmental leadership.

## Vision

1. Students grow healthy food using the best of traditional practices plus innovation with your ideas.
2. Students write plans to implement actions on values and lessons learned from the seminar.
3. Students write Plans for School & Life and universities teach and reward this best practice.

## Goals for Dr. Dyson serving you

1. Help students develop *Plans for School & Life* with applications for growing and buying healthy food.
2. Present principles and practical applications you can use in your plan now, home, or homestead.
3. Share examples of what's working and not so you can pick actions you value – now and after college.

## Information, Booking, or Publications

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## Advisors, Sources, and Influencers

Mr. Kenneth Crawford, farmer (retired), uncle, and provider of "tree okra" heirloom seeds

Mr. Kyle Crider, instructor, Environmental Studies, University of Montevallo; consultant, cover design

Dr. Susan Caplow, Assistant Professor & Coordinator of Environmental Studies, University of Montevallo

Mr. Gary Gray, Alabama Cooperative Extension System, Birmingham, Alabama

Dr. Arlie Powell, Instructor, Petals from the Past, and retired Professor, Auburn University

Mr. Jason Powell, Owner, Petals from the Past, Jemison

Mr. Patrick Dolan, "One Yard Revolution" video channel, Illinois

Mr. Paul Gautschi, "Back to Eden" video channel, California

Mr. Curtis Stone, "The Urban Farmer" video channel, Canada

Wikipedia

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## Sustainable Growing Suggestions Summary

1. Plant good seeds for good food from plants native to or suitable for your location – plant the proven ones first; you can experiment with others as you wish.
2. Plant annuals you value for your needs and others – consider planting your favorites or most expensive when you must buy.
3. Plant perennials you value to last a long time – adding value, saving time.
4. Do no harm adding harmful chemicals that may damage the land and you.
5. Add TLC and healthy amendments starting with organic material you already have – move toward not needing to buy any fertilizers, potting soil, compost...
6. Harvest food to enjoy, give away, and/or sell – and enough seeds for next season.
7. Enjoy confidence you produce for self-reliance and society instead of just consuming.

### Internalize Helpful Beliefs

*When I practice agricultural sustainability,  
I almost always simultaneously practice environmental leadership.*

1. To add sustainability to whatever you learn, *operationalize* – listen with intent to learn, decide what to remember, add to your plan to use, and pass on to others.
2. Listening helps. Operationalizing helps you focus and take action for better results, often in less time.
3. Outline plans with periodic review to increase probability for taking action, which significantly increases probability for success and sustainability.
4. Personal leadership aka Best-Self Leadership is the #2 most important topic on the planet. #1 varies among individuals. Once we decide on our top priorities, such as callings, families and friends, and methods of survival and serving, then our ability to choose priorities and implement becomes a major determinant of results and relationships.
5. Envision your life and impact on the world. Plan for it. Create habits.

*“The difference in average and above-average thinkers  
is their ability to operationalize ideas into strategies.”*

*-Dr. Byron Chew-*

# Suggestions to Think, Learn, Do Summary

## When you learn and practice *agricultural sustainability and personal leadership*, you...

- ◆ Grow food with nutrition you need that provides *healthier fuel* for positive life.
- ◆ Grow food without chemicals that might harm you, family, friends, community, and land.
- ◆ Practice *environmental leadership* that improves long-term capacity for people and land.
- ◆ Plan what you want to give and gain as well as balance learning from others and innovation.
- ◆ Take more action as a producer who contributes to society – not just a consumer.

## Paradigms and new Best Practices

- ◆ Think critically and creatively: consider status quo and if you envision change to improve.
- ◆ Consider if the best use of your lawn is grass or using at least part for a bed, garden, or food forest.
- ◆ Consider form and function (like architects) – pretty trees or pretty trees that also bear fruit.
- ◆ Discern the best of natural and “scientific advances” – science helped farmers change from primarily organic to “modern” chemicals to boost production; now, many are returning to organic.
- ◆ Science helped chicken/producers of meat to increase size and rates; now, we realize “we are not only what we eat, we are what we eat is eating” (grass and freedom vs growth hormones and cages).

## Land and Ecosystem Health

- ◆ Focus on making your soil and seeds healthy and strong naturally.
- ◆ Get your soil off of “steroids” (harmful artificial chemicals for fertilizer, pesticide, herbicide).
- ◆ Use what you already have for soil amendments to add carbon and nitrogen nutrients
  - If it’s organic, do not throw it in your trash. Add to soil or compost kitchen extras like coffee grounds, excess fruits and veggies--banana peels, ends of celery stalks, carrots...
  - Leaves, grass clippings, ash from fireplace or burn pile, twigs around trees for slow release...
  - Horses often like excess parts of carrots, apples, okra leaves, even banana peels....
  - Animal lovers benefit from spreading grass-fed manure (composted to prevent E. coli)
  - Wood chips can be available for free (electric utility companies trim and chip limbs near power lines and may donate and deliver when working on your land or in your area).

## Natives

- ◆ Grow plants and trees already proved successful in your area to increase chances of success and keep the best of the past alive, as well as prevent bringing in potential harmful species.
- ◆ If you import plants or seeds, consider those successful in similar areas within your growing zone.

## Heirlooms

- ◆ Focus on growing with heirloom seeds and seedlings native to your area that produce healthy seeds.
- ◆ Harvest seeds from plants grown on your land that over time improves confidence they come from healthy plants grown in healthy soil adapted to your land.

## Personal leadership

- ◆ Be a proactive producer, not just a passive consumer – for you and society.
- ◆ Learn best practices for planning and leading your life applied to growing and harvesting plants you can benefit from as food and landscape at home, professional institution, community.
- ◆ Be proactive to learn traditions of the past and innovations of the present, plus innovate.
- ◆ Think success and sustainability with time, inspiration, money, and energy as well as land.

## Fun facts and ideas learned from asking questions and experimenting:

- ◆ Geology matters: “Peach capitals” are 200 miles from the ocean in Alabama, Georgia, SC, and north. “Slocumb tomatoes” are unique because of the soil in an area of South Alabama.
- ◆ Use all you grow for food or compost. Many people harvest okra pods to cook and discard the rest. In Africa, some prefer the leaves over pods. You can cook leaves as you would other “greens.” Okra pods are good eaten raw. When okra pods get big and tough, you can cook the seeds, add pods and stalks to compost. This is another example of, if we think first, we can re-use more of what we have.

# Concepts and Paradigms, Terms and Trends

## Information or Idea

## Notes (learned, ideas, plan...)

### **Mental preparation for this class-college-career...**

1. Operationalize
2. The 2<sup>nd</sup> most important topic in your life
3. PAR: Plan-Action-Results
4. YOU: Class - Course - College graduation - Career performance - Citizenship
5. Agricultural Sustainability connection to Personal Environmental Leadership
6. Missed opportunity thinking: Alabama and Pawpaw, America's Veterans Day Ed...branding
7. Pareto Principle: 80% of value will come from 20% of ideas and actions....

### **Synergistic Thinking and Benefits of Ag Sustained for Life**

### **My Motivation for Teaching and Helping You**

1. Influence of grandparents, farmers on 40, then 80 acres
2. School Science Project: Botany
3. Renewed love of horses inspired me learn more about land and plants
4. Back to Eden: wood chips
5. Second farm, hopefully the final place: 30+ acres with 24 animals needing home and care
6. Goal to create "working farm" that has purpose before the age Pa died
7. Diet to sustain life longer than grandfathers
8. Create a place people want to visit for renewal, personal growth, improved planning for life
9. My big lesson learned the hard way about the impact of artificial fertilizers and pesticides last year.
10. And, invitation from Caplow and Crider to teach again inspired wanting to improve and add planbook.

*Lesson: allow yourself to be shaped by both your vision and by invitations to fill needs. Last term, I presented handouts and slides. This term, for you, the planbook has been added. If you like this work, we could keep developing with more photos and explanations to stand alone without instruction. Your feedback and suggestions are welcome.*

### **Your possible Motivation for growing more of your food and/or obtaining from those you trust**

8. Energy for a better life now and over time
9. Avoidance of self-inflicted diseases caused by food and habits
10. Consider which of your favorites you can grow – save money and time traveling for groceries
11. Create savings and and/or income source and/or professional option
12. Demonstrate intelligence (are you more or less likely to hire someone in good health with good habits?)
13. Ethics of Sustainable Ag and Environmental Leadership
14. Some of your assumptions about food growing and preparation for you may not be not true
15. Survival in the future
16. Synergy: hobby, improve as you learn, share, coach, teach, publish...to add energy to your efforts.
17. Serve others. Give gifts of food or service. Donate to those in need.
18. Sell for income to support a hobby or your homestead.
19. Ethics of you as producer and as consumer who commissions others.
20. For every pot or plot you do NOT grow in your grass lawn you are creating demand for someone else to use land to grow food for you. That means, you may be creating more purpose for land not used on a farm or it could mean cutting down trees to use land for growing to feed more people. And, you are spending more time and money to grow pretty grass when you could grow pretty plans with purpose.

### **Do I have Time for growing plants?**

Instead of travel time to gym, consider synergies of your labors in your plot or community garden:

21. Work/exercise producing something tangible: food, money, animal care, land improvement
22. Ranch work: dig holes for posts, work with animals: walk, hike, run, core strength from riding
23. Homestead/Farm work: work the soil with hands and tools, split your own firewood...

### **Do I have Money for growing plants?**

24. Savings from what you would spend for groceries?
25. Borrow tools from family or friend to get started, look for donated seeds, learn from libraries/online
26. Trade your time to help a mentor/experienced grower or trade part of food to use their land and tools

### **Options for Opportunity**

27. Personal Leadership; grow what and how you need or support those who grow the right way
28. Homestead: "a house, especially a farmhouse, and outbuildings" (often growing and more self-reliance)
29. Farm: "an area of land and its buildings used for growing crops and rearing animals, typically under the control of one owner or manager"

### **Strategy/deciding what to grow**

30. Healthy for you and others – add quality, confidence in what you get
31. Purpose/on your grocery list/saves money and time
32. Goals to improve health: blueberries, sprouts, microgreens, lettuce, spinach...
33. Foods grow well in area (natives)
34. Niche to add value and attract visitors or business (blueberries, okra, pawpaw)
35. Freeze for year-round benefit (blueberries, okra...)
36. Good for people and animals
37. Public demand (to sell or donate)
38. Feed horses, too: carrots, apples, pears, watermelon...
39. Feed ducks: corn...
40. Needs of society: pawpaw has not been grown commercially in Alabama so it's an opportunity for state to grow this native of the Eastern U.S.
41. Determinate or indeterminate plants

### **Natives – examples**

42. Pawpaw: North America/Eastern U.S.
43. Watermelon: Africa (Egypt)
44. Okra: Africa (Ethiopia)
45. Peaches: China
46. Cotton: India

### **Land uses and sources of income ideas**

47. Microgreens
48. Vegetables
49. Fruits
50. Plants
51. Grass (hay, sod)
52. Fibers for products (cotton...)
53. Corn Maze
54. Pumpkin Patch
55. Christmas Tree Farm
56. Trees: Fruit, Ornamental, Wood Products
57. Timber (sell excess trees when needing to clear or keep from encroaching on pasture)
58. Raise chickens: Organically grown eggs
59. Board horses (lease pasture, feed, care, trimming, training)
60. Horse Hotel (overnight stay for travelers with horses)
61. Lease land to gardener, farmer, horse lover for boarding
62. Lease cabin with fenced space for dogs, cats, horses, garden...
63. Animal services: boarding, trimming (hooves), grooming, training
64. Online: seeds, dry root trees, potted trees and plants, standard or unique tools or supplies you offer

### **Where to Use/Give Produce**

65. Self: grow favorites, save money, earn money, grow gifts for others
66. Family
67. Neighbors
68. Donations to nonprofits: Food banks, agencies feeding animals, children, veterans...
69. Customers who buy from you
70. Clients who want advice and/or assistance consulting to do what you have done

### **Places and Methods to Tell and Sell**

71. Neighbors
72. Cooperative (Co-op members)
73. Farmers Market
74. Local store
75. U Pick (people come to you to pick and pay)
76. Farm Day: sale of items--eggs, veggies, fruits, plants, or pay admission fee to get pumpkin, petting zoo
77. Ranch Day: petting zoo, horse clinic, photos, nonprofit events, horseback riding (safety, liability)
78. Honor Farm Stand with offerings of food and volunteer "honor" payment or donation box
79. Web site
80. Social media
81. Email subscribers
82. Video channel: teach, share info, tell offerings, option to attract subscribers and earn revenue

### **Places to Grow Plants and Trees for Food, Landscape**

83. Inside with natural light: window, sky lights
84. Inside with artificial light: grow lights
85. Kitchen window or counter
86. Patio pot
87. Yard plot
88. Garden/"Victory Garden"
89. Food Forest
90. Raised beds
91. Basement
92. Spare room
93. Shipping container, Box car, or other converted structure
94. Greenhouse
95. Hoop House
96. Homestead
97. Farm
98. Field
99. Commercial Farm
100. Paddock: small pasture
101. Nursery: grows trees, vegetables, ornamental plants and trees, sod
102. Acre (US): 4,840 square yards
103. Hectare: (International) 10,000 square meters and equivalent to just under 2.5 acres.

### **No/low Cost Gardening**

104. Dirt+compost (mix in organic material you may have like grass clippings, coffee grounds, ash, leaves, unused kitchen scraps like ends of carrots, celery, lettuce... if you use woodchips, only mix in to soil aged chips a year or older; if younger, you can use on top of the ground without tilling).
105. Ask a dedicated gardener to share extra seeds or plants or tell family of interest in gift cards to start
106. Plant perennials
107. Harvest seeds from organic heirloom veggies for you to plant next season
108. Harvest seeds from your best plants so you can develop stronger soil and seeds

109. Borrow a garden tool (garden fork) or share tools with an experienced gardener. You may need a shovel though if the soil is good be aware a garden fork is safer for worms than a shovel.
110. Use a pot or plot where you live or trade service with a gardener for a plot and tools to grow yours.
111. Grow enough to save you money to cover your expenses.
112. Grow as gifts for others instead of spend money to buy for them.
113. Grow for you and one or more others to cover your costs, maybe your time (food coops sometimes have members who pay an amount such as \$20 for a basket of mixed veggies such as tomato, lettuce, spinach, carrot, potato, and more. Pick what to grow based on what you want to buy and perhaps what family or customers want to buy.

### **Paradigms, Beliefs, and Strategies**

114. Grass lawn or garden plants best use of your land at home
115. Plant based on “pretty” or *pretty with purpose*
116. Pre-industrial – Industrial - Now
117. Periodic fallow (rest without growing) vs. live in the ground all the time
118. Modern science-produced artificial chemicals vs. “Back to Eden” basics using wood chips
119. Genetically Modified (GMO) or Non-GMO
120. Organic or pesticides-herbicides
121. Cover crops for soil food or cover crops that also grow food
122. Commonalities and differences between “food forests” and “commercial farms”
123. Mono or Multi/Poly crop per area
124. Ethics of meats and plants you grow and buy
125. Ethical dilemma of some farmers: more income though less healthy
126. Animals (rights, care, purpose)

### **Synergies of Animals**

127. Horses: eat lawn and pasture grass (no toxic chemicals!), provide manure, experiences for people
128. Chickens: lay eggs, scratch surface on gardens and compost, clear insects, fertilize
129. Turn chickens in on garden after harvest for insect control and fertilizer months before next season

### **Tilling**

130. Purpose: soil soft enough to plant and roots to grow.
131. Past pre-Industrial: horse or mule and man to clear land, plow, plant, harvest by hand...
132. Past Industrial: tractors and turn plow, disc, planters, mechanical harvesters

### **Natural Methods of Tilling**

133. Horses till new garden (fed them hay on new annual garden early fall until winter – they left excess dirty hay for compost, added manure for compost, and loosened the top 4 inches of soil with their hooves walking and standing in dirt extra soft because of rain). Moved feeding spot months before growing.
134. Plants with big, deep roots that keep soil loose (okra in soft soil has grown roots as long as plant is tall)
135. Worms dig natural tunnels and are attracted to rich natural dirt and compost
136. Chickens scratch the surface of the soil and eat grass/weeds
137. Gardening fork: most recommend only loosen the top layer, 1-4”
138. Horse drawn scratcher or harrow
139. Horses eating hay from a feeder on wet soil wear down grass, make soil loose, and fertilize
140. When the ground underneath is too hard for some plants, the quick fix may include tilling 4” deep (tractor pulled or walk behind tiller), though if you start early you can put down 4 or more inches of wood chips in advance to break down before planting, decreasing need to till. On a lawn, to prep for planting, consider laying cardboard before adding 4” or more wood chips or leaves.

### **Natural methods of Grass control**

141. Wood chips, leaves, dirty hay
142. Chickens help scratch and eat

143. Cover crops to control weeds between crops
144. Cover crops to control weeds along with cash crops
145. Live mulch vs. mulching

### **Natural methods of Soil Amendment**

146. Leaves
147. Grass clippings
148. Mint hay
149. Wood chips
150. Cover crops
151. Manure: Horse, Donkey, Chicken

### **Growing Methods**

152. Heirloom seeds and organic matter
153. Monoculture
154. Polyculture
155. Permaculture
156. Deep mulch method (hay, wood chips...) – Ruth Stout Method (1884-1980)
157. Mound culture (Hugelkultur): dig trench, add trees, limbs, stump...wood that absorbs water and provides moisture and slow release nutrients
158. Grow lights
159. GMO (genetically modified...) and artificial chemicals to stimulate growth and kill
160. Pesticides (kills pests)
161. Herbicides (kill plants)
162. Mulch basin
163. Curb cuts on streets
164. Swale: trench
165. Companion planting: example “3 sisters” (corn, bean, squash) that help each other
166. Guilds: a group of species that have similar requirements and play a role within a plant community.

### **Natural Soil and Plant Amendments**

167. Organic material (source: living, not artificial)
168. Mulch (layer of material added to soil – organic or artificial like plastic)
169. Compost (aged/decomposed organic material – can be tilled into soil)
170. Leaves
171. Grass clippings
172. Coffee grounds
173. Wood ash (burn pile, fire pit, fireplace)
174. Twigs (base of fruit trees or kindling)
175. Hay
176. Manure: Horse (gather near feeding area, stalls, more time if gather in pastures)
177. Manure Donkey
178. Manure Chicken
179. Manure: Cow
180. Manure: Deer (sanctuary with deer feeding space so manure could be gathered is possible)
181. Risk of E.coli: bacteria that can cause food poisoning and can come from animal manure (typically suggest age 6 months or more; better to put in compost 6 months so heat kills harmful bacteria)
182. Wood chips
183. Cover Crop
184. Cash crop as cover crop
185. Limbs, logs...can be buried in ditch and covered with dirt and compost for long-term organic material
186. Vermicompost (vermi-compost, vermiculture) is the product of the composting using earthworms to create a mixture of decomposing vegetable or food waste, bedding materials, and vermicast (also called

worm castings, worm humus, worm manure). These castings have been shown to contain reduced levels of contaminants and a higher saturation of nutrients than organic materials.

**Man-made products** used with organic material, mulch or compost

- 187. Cardboard (on grass covered with material to convert lawn or build soil on top of hard dirt/rocks) – this method is used often in “Back to Eden” gardening using wood chips
- 188. Newspaper (some warn of ink)

#### **Artificial soil amendments**

- 189. Manufactured fertilizer with sometimes toxic chemicals to stimulate plant growth

#### **Natural Pest /insect controls**

- 190. Mint (claimed to repel fleas and some insects)
- 191. Plants that attract helpful insects to control harmful insects
- 192. Chickens that eat insects
- 193. Polyculture (mixing plants instead of group all in one place)
- 194. Plants that repel/confuse harmful insects
- 195. Plants that attract good insects to repel harmful insects
- 196. Diatomaceous Earth (some claim results, but some still question value)

#### **Artificial Pest Controls**

- 197. Pesticide (chemicals to kill pests – insects, rodents)

#### **Semi-natural pest controls**

- 198. Netting over fruit trees to keep bugs off

#### **Natural Weed Control**

- 199. Leaves, Wood chips est 4” thick
- 200. Improve health of soil and plants to survive and compete

#### **Semi-natural weed control**

- 201. Tarp or plastic to block sun from weeds/grass
- 202. Tarp/landscape fabric with holes on beds for plants like strawberries
- 203. Flame weeder to burn surface weeds

#### **Artificial Weed Control**

- 204. Herbicide to kill weeds (may kill good plants, may be harmful to skin...)

#### **Types of Plants and Terms**

- 205. Native
- 206. New from native conditions
- 207. Annual (1 season or short-term)
- 208. Perennials (expected to grow again): Fruit vines and bushes, fruit trees
- 209. Vegetable
- 210. Fruit
- 211. Cash crop (eat, sell...)
- 212. Cover crop (improve soil, conditions)
- 213. Weed: unwanted (can be good plants in a bad location)

#### **Growing Methods**

- 214. Cash crop then fallow (rest)
- 215. Cash crop rotation
- 216. Cash crop alternated with cover crops
- 217. Growing in hay (Ruth Stout Method)

#### **Cover Crops**

- 218. Add nitrogen to soil
- 219. Prevent erosion

- 220. Weed control
- 221. Examples: Non-cash--Clover; Cash crops--lettuce, spinach, mint hay...

### **Harvesting seeds**

- 222. Freezer, refrigerator, cool dry place
- 223. Glass, plastic, baggies, or metal cans (beware of plastic unless chilled)

### **Lighting**

- 224. Natural: sun
- 225. Full sun: 6-8 hours
- 226. Sky lights (light through glass in ceiling)
- 227. Grow lights

### **Commercial farm recent advancements in Organic farming**

- 228. No/low till farming returning more with new equipment – Punch planters
- 229. Cover crops
- 230. Change from “let field lie fallow” to “always grow live plants” – alternating with cover crops

### **Ethical Choices Farming growing food**

- 231. We are mainly what we eat (food, lifestyle, genetics)
- 232. We are what we eat and what feed what we eat (poisons, hormones...)
- 233. Ethics of animal treatment of livestock (food source animals)
- 234. Use chemicals that could hurt people to increase yield on crop?
- 235. Use growth hormones to grow chickens faster even if hormones will influence humans?
- 236. Feed healthy natural foods to animals like chickens on grass or artificial food?
- 237. Feed animals that produce food in a healthy and happy environment or in pens

### **Ideas Triple D Farm is exploring**

- 238. Mint inside Pet Freedom Fence (close to orchard) as repellent for insects, mint hay as cover crop
- 239. Cover crop for Nitrogen and food such as Lettuce, Spinach, Snow peas...

### **Farm Life Mindset & Environmental Sustainability**

- 240. Law of the Farm: work with natural laws
- 241. Use what you have mindset
- 242. Re-use food scraps
- 243. Use less electricity: more clothes and covers
- 244. Use less money: shop only when you need something
- 245. Family that works and plays together stays together (more often)

### **Water Uses**

- 246. Dig watering hole for animals to drink rain water, high water table, underground stream
- 247. Well and pump
- 248. Irrigation
- 249. Drip hoses
- 250. Rain water bucket collection and pump or gravity fed pipe
- 251. Sprinklers: rectangles, circles on larger fields
- 252. Grow water loving plants near sources: ponds, bogs to minimize need for irrigation
- 253. Collect water from gutters into barrels with hose to garden, gravity feed, or solar powered pump

### **Triple D Growing Experiments You May Like**

- 254. Grow pawpaw (possibly the first commercial grower in Alabama) to add native fruit and help others.
- 255. “3 Sisters” of Native Americans (corn, climbing bean, squash at base helping with weed control)
- 256. 3 *Brothers*: experiment to adapt 3 Sisters concept to use Crawford “Tree Okra” plus snow peas (2’ high) around base to help with weed control, possibly cucumber or beans growing on stalk.
- 257. Test growing more plants observed to resist disease and insects: okra, pawpaw, cucumber. Most fruits and veggies like squash, corn, tomatoes attract insects. You can still eat most of the food, after removing

- the area with the worm, though consumers preferring pretty over healthy usually do not want organically grown foods. Ugly food can be your friend (organic food tends to be uglier and better).
258. Raise egg producing chickens to add health and revenue plus benefit from chickens working compost piles as well as reducing insects and weeds.
  259. Allow dogs to play in orchard as a great playground and deterrent to animals eating fruits and veggies.
  260. Add compost pile in chicken coop to add heat in winter (compost can heat to over 100 degrees).
  261. Grow fruit trees without using insect sprays (mint nearby in pet fences) to test assumptions that some say we cannot grow fruit without chemicals that can cause harm.

### **Tools you may need to grow/care for homestead**

#### **Hand/personal tools**

262. Garden fork (loosening soil)
263. Pitch fork (lifting hay)
264. Hoe
265. Shovel
266. Spade
267. Pick
268. Ax
269. Maul
270. Push planter
271. Push plow
272. Post hole digger
273. Wheel barrow

#### **Small Machines** (sometimes needed)

274. Tiller (1" depth helps protect biology below – roots of plants can keep soil below loose)
275. Flame Weeder (some use to heat/torch grass and weeds as they emerge before becoming problems)
276. Mower (grass, weeds)
277. Weed eater/trimmer
278. Chain saw
279. Pole saw (good for pruning above your reach)
280. Log splitter (if you cannot split wood manually or if you wish to sell and need more production)
281. Wood chipper (make your own wood chips – often best to get from tree trimming company)
282. Auger (post hole digger – sometimes helps to plant trees) – 1-person, 2-person, 3-point hitch on tractor

#### **Large equipment**

283. Truck
284. Utility trailer (often 10x5' or similar) – move metal, garbage, lumber, hay, tools, small engines...
285. Transport trailers: to move larger equipment like tractor...
286. Horse trailers: transport horses and the roofs help move hay, furniture...

#### **Tractor and implements**

287. Lawn tractor: cut grass, paddocks
288. Garden tractor: cut, pull wagon
289. Compact tractor: small for home/homestead/small farm
290. Farm size: more hp and hydraulics for lifting, pushing, pulling... (round bales weigh 800+/- lbs.)
291. Plow/Turn Plow/Breaking plow
292. Disc
293. Harrow
294. Planter
295. Punch planter (no till planter)
296. Cultivator (secondary tillage like weeding)
297. Front end loader
298. Bush hog (tractor-pulled mower)

- 299. Hay spear (1 large and 2 small spears hold roll of hay to move with tractor)
- 300. Auger (post hole digger) can be powered by PTO (engine and power train) of tractor
- 301. Backhoe: scoops and moves dirt
- 302. Wagon

### **Animals add to your Homestead**

#### **Animals add value**

- 303. Horses: graze and control grass, fertilize land, provide manure for compost fertilizer
- 304. Donkeys: more likely to eat vines and weeds, they are great in a garden not in production eating grass and fertilizing though be with them if grazing in an orchard – they may nibble blooms, bark, branches
- 305. Dogs: watch dog, guard dog for chickens, cows...keeps predators and garden poachers away...
- 306. Cats: repel animals not wanted in your home or yard--field mice, snakes, chipmunks...
- 307. Chickens: eggs for people and dogs, control garden insects, scratch garden soil, scratch compost
- 308. Others: many farms have cows – milk; goats – milk; sheep – wool
- 309. Synergies: horses/donkeys manure is full of grass, pieces of grain – attracts worms, flies – chicken feed

#### **Horse/mule drawn gardening and farming**

- 310. Wagon
- 311. Collar: padded, fits around neck, pushed by chest
- 312. Chains: to pull tree limbs, logs...connect to collar
- 313. Plow
- 314. Harrow/Disc
- 315. Scratcher
- 316. Planter
- 317. Buggy

#### **Chickens as producers of eggs**

- 318. Re-use kitchen scraps as chicken food
- 319. Compost bed to yard for them to feed
- 320. Compost pile to generate heat for chickens and kill bacteria
- 321. Eggs: consider boiled eggs with egg whites for humans, yokes/centers for dogs (mine love them)

#### **Equines**

- 322. Equine Therapy (horse-assisted therapy, source of donated service or income)
- 323. Maturity of human and horsemanship and maturity of horse: inverse relationship. Ex: young child may need an old mature “bomb proof” (“spook in place”) horse

#### **Sustainability for Horses: Be a leader and help them have purpose!**

- 324. Graze grass (prevent worms by rotating or providing extra pasture)
- 325. Fertilize soil
- 326. Work: pull limbs, work in places machines may not access
- 327. Exercise: riding horses uses core muscles and sharpens senses
- 328. Companionship: walking and playing as well as riding
- 329. Beauty: look at a “postcard” view – attractive, stress reducing

#### **Sustainability through reduced expenses--Farmer mindset examples**

- 330. *Country Conservative* (frugal) on spending and time
- 331. Farm turned home heat off at night, relying on extra clothes and quilts
- 332. Farm house does not use central heat unless under 50 (space heater under desk, when showering...)
- 333. Woman shops for good clothes in thrift store run by church selling nice clothes donated

#### **Ethical Choices Ranching and treatment of animals**

- 334. Beliefs and treatment of animals: *people treat people about the same as they treat animals*
- 335. Animal Breeders vs adopt one of the million plus healthy dogs and cats euthanized annually
- 336. Should society support or allow “puppy mills” when euthanasia is needed for healthy dogs and cats

- 337. Ethical options when you no longer want or can no longer care for a pet
- 338. Horses: USA, Canada, Mexico ethics and laws on killing
- 339. Ethical treatment of livestock (good lives with only “one bad day”)
- 340. *Entertainment killing* of wildlife is unethical, even when legal: remember “Cecil the Lion”
- 341. Suggestion for ethical requirements of hunters – must be skilled to shoot to kill instead of injure

### **Horse-Related Terms**

- 342. Equine: refers to type of animal including horse, donkey...
- 343. Stallion: male horse
- 344. Gelding: male castrated (typically done when colt/young)
- 345. Mare: female horse
- 346. Foal: young horse
- 347. Colt: young male
- 348. Filly: young female
- 349. Pony: horse under 14.5 hands high if a horse; also pony and small horse breeds have differences
- 350. Hand measurement (4”) as 15 hands equal 60”
- 351. Miniature horses
- 352. Donkey or burro
- 353. Male donkey: Jack
- 354. Female donkey: Jenny (Jennet)
- 355. Mule: offspring of horse and donkey (Mules do not reproduce)
- 356. Group of horses: Herd
- 357. Hoof: foot (to trim means file the hoof)
- 358. Wither: base of mane (about where the saddle horn would be)
- 359. Conformation: shape or structure

### **Common False Beliefs**

- 360. I don’t have a horse anymore because I am too old to ride (horses are great for hiking, walking, playing, or “hanging out”)
- 361. Child and young horse: they can grow up together (immature riders need mature horses)

### **Dogs**

- 362. Young: Puppy
- 363. Male: Dog or Stud dog
- 364. Female: Bitch
- 365. Group: Pack

### **Cats**

- 366. Young: Kitten
- 367. Male: Tom or Tomcat if not neutered; if neutered: Gib
- 368. Female: Queen
- 369. Group: Clowder

### **Fencing**

- 370. Beware of pretty ranch fences that are not functional and potentially dangerous
- 371. 2x4” welded wire fence
- 372. 4x4” sometimes called “hog wire” (not recommended for horses, chicks, goats with horns...)
- 373. Chicken wire
- 374. Posts: vertical
- 375. Rails: horizontal
- 376. Material options: treated wood, t-posts, barbless, barbed (beware), electric (beware)
- 377. Heights often recommended: 8’ deer, 5’ horses

### **Triple D Practices for Fencing to Protect Animals**

378. Fence rails 5 foot (15 hands, 60 inches) on top to help keep horses of average size in and safe and 1 foot or less to protect dogs
379. Add 5' welded wire (2x4") to posts before attaching rails to keep dogs safe from digging out or a dangerous pack from getting in, plus slowing down predators to chickens like fox, and this fence is much safer to keep donkeys in than strands of wire
380. *Freedom Fence* (brand of Triple D) for cats (welded wire sides and top) so cats can get outside without dangers of predators (coyotes, hawks...) and vehicles on road if they get out and wander.

### **Resources to Help You more**

381. Every county in AL and most nationwide have a county ag office where citizens can get information.

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<https://www.aces.edu/>

Google search "Alabama beginning farmer" (top hit is Extension Commercial Horticulture team page)

# My Plan for Agricultural Sustainability and Personal Environmental Leadership

Name \_\_\_\_\_

## Suggestions/Instructions

**List what you are doing you want to continue.**

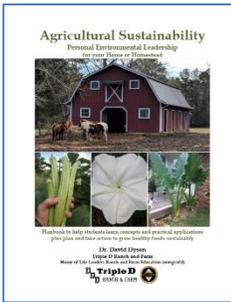
List what you want to **do because of what you learned and thought.**

Add **plans to use in the future.** If a possibility is not yet a goal, you can add a question mark(?). Be creative. You do not have to do every idea, though you may do something innovative if allowed to be inspired.

**Consider:** *Callings – Gifts – Talents drive mission, vision, goals, actions--try to create synergy with ag plans*

1. **My Vision for where and how to live** (trees, plants, garden, reuse organic matter...).
2. **Choose food** I want to eat, to grow, to buy that is ethically grown and environmentally friendly.
3. Be a **producer instead of just a consumer of food** (plot or pot, garden, orchard, food forest, farm...).
4. **Use food scraps/excess instead of discard**--what I can share with animals, plants, soil...
5. **Reduce** purchasing low priority, impulse buys, single use products (increase buys of reusable goods)...
6. **Use labor for fitness synergistically** (labor for food, animals, land build muscles and character).
7. **Reduce buying. Reuse** what I can. **Recycle** what I no longer need (sell/donate metal, clothing, goods...)

## Goals/Plans/Ideas



# Agricultural Sustainability and Personal Environmental Leadership

In this Planbook, you get:

- ◆ Summary notes from 10+ years of research and practice growing
- ◆ Content listings on concepts and applications with space for your notes
- ◆ Template to begin or improve your plan for growing and more—now and later

## About the Author: Dr. David Dyson

**Mission:** *to empower citizens, colleges, and country to PLAN and LEAD in LIFE.*

Director, Life Leaders Institute and Triple D Ranch and Farm. Author of books, models, and blogs on *planning, personal leadership, patriotism, freedom, environmental leadership....*

David serves as author, teacher, executive and life coach, speaker, horseman and farmer, provider of an animal sanctuary and workshop venue, advisor to educational leaders.

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**Books & Planbooks:** *Plan for College and Life; Best-Self Leadership: Strategy to Do Your Best; Achieve More Goals: 7 Proven Steps to Set Achievable Resolutions; Veterans Making Comebacks – Assessment and Planning; Earning and Delegating Empowerment; Assessing and Developing Attitude and Ability....* Books: *Professionalism Under Stress* and *Patriotism in Action* with Col. Stretch Dunn (1943-2017). Others available to view: *Presidential Priorities*, *Suggestions for Successful Living: Positive Ideas for the 7 Areas of Life*, *The Career Planner*.

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## About Triple D Ranch and Farm

Animal sanctuary, organic farm, and plan for school and life center.

Home of Life Leaders Ranch and Farm education and events (nonprofit).

Home of Horses: American Patriot, Star of the Bar, Indian Legend, Cocoa, Cody, Princess Katie.

Donkeys: Honk, June, Jill. Dogs: Cowgirl, Buck, Chief, Lady. Cats: Night, Midnight, Tux, Star Cat, Panda, Bella, Diamond, Angel. Living in sanctuary: ducks, Ducky and Mallie, barn cat, deer, fish.

**Web:** [www.TripleDRanchAndFarm.com](http://www.TripleDRanchAndFarm.com).

**Facebook blogs:** *Triple D Ranch and Farm, Environmental Leadership.*



## About Life Leaders America

Life Leaders is a 501 (c)(3) charitable service organization providing free online information and materials for teaching, learning, and doing in 7 Areas of Calling: *Plan for School and Life, Best-Self Leadership, Master Your Goliaths, Patriotism in Action, Veterans Day Founding and Character Education, Freedom to Flourish, Farm and Ranch.*

**Institute:** research and publication of books, planbooks, models, assessments, videos, plus teaching and service to leaders, teachers, and *true professionals.*

**Association:** seminars, workshops, and events for members and the public.

**Ranch:** nonprofit programs to teach and help people plan, develop, renew with animals.

**Farm:** nonprofit educational programs to teach and grow food.

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