The agroecology framework in action:

Bringing hemp to Florida

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trec.ifas.ufl.edu/agroecology
programs.ifas.ufl.edu/hemp
Agroecology Framework
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Production

Environment

Society
Agroecology Framework

Systems  Diversity  Resilience
Agroecosystems
Environment
The Crop
Good

Bad

Plant Community
Invertebrate Community
Vertebrate Community
Ag Neighbors
Natural and Urban Neighbors
Linkages & Dynamics
What is *your* agroecosystem?
Hemp

*Cannabis sativa* with THC < 0.3% per dry weight

**Botanically:** indistinguishable from marijuana

**Legally:** distinguished by THC content

**Economically:** potentially valuable alternative crop

**Ecologically:** potential invasive species
Hemp Production

Fiber (Stem)  
Grain (Seed)  
CBD (Flower)
Fiber

- On-the-flat
- Direct seed
- 1 million plants/acre
- 90-100 days
- Harvest at first flower
- Machine harvest stems
- Low cost – low value
Grain

- On-the-flat
- Direct seed
- ½ million plants/acre
- 100-120 days
- Pollination required
- Combine harvest seeds
- Low cost – low value
Grain & Fiber
Essential Oil

- Raised bed
- Transplanted
- 2,500-10,000 plants/acre
- 90-120 days
- Unpollinated flowers
- Hand harvest flowers
- High cost – high value
Essential Oil
Hemp Agroecology

**Production**
- Varieties and genetics
- Cropping system design
- THC levels and ‘hot’ plants

**Environment**
- High invasion risk
- Nutrient management
- Biosecurity and agrochemicals

**Society**
- Seed import and transportation
- Security and law enforcement
- Banking and markets
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