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University of Florida Industrial Hemp Pilot Program

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What is industrial hemp?

Cannabis sativa with THC < 0.3% per dry weight

A potentially valuable and impactful alternative crop

Requires preliminary assessment of the crop for:

- plant varieties
- cropping systems
- invasion risk
- processing and commercialization



- This is Sunn Hemp,
- not industrial hemp



What is medical marijuana?

Cannabis sativa leaves and other plant material with THC > 0.3% per dry weight.

Medical applications include:

- Treat diseases (e.g. cancer, Alzheimer's)
- Treat conditions (e.g. PTSD, pain, nausea)



Why interest in industrial hemp?

Multi-use crop

- Fiber (textiles)
- Food (hemp seed oil, greens)
- Feed (forage)
- Building material (hempcrete)
- Bioplastics
- Medicinal (CBD extract)
- Environmental remediation



UF/IFAS Industrial Hemp Pilot Project

Initial Authorization

- Federal – Agricultural Act of 2014, 7 U.S.C. s.5940, Legitimacy of industrial hemp research. DEA – Schedule 1 Permit and other forms for seed procurement.
- State – Florida Statute 1004.4473 (2017), Industrial hemp pilot projects
- FDACS – Rule 5B-57.013 (2018), Industrial hemp planting permits
- UF – Board of Trustees

UF/IFAS Industrial Hemp Pilot Project

What was mandated?

- Industry-funded
- 2-year pilot project (starts at planting date)
- Report project outcomes to legislation

How did UF respond?

- Hemp production limited to UF facilities
- Genetics through variety trials without breeding
- Processing and market research without product sales

UF/IFAS Industrial Hemp Pilot Project

Updates to Authorization

- Federal – Agricultural Improvement Act of 2018
 - Hemp = ag commodity, NOT controlled substances
 - USDA controls hemp production
 - Farmers access financing and insurance
 - Hemp production still regulated
 - FDA controls hemp products
- State – USDA will require ‘State Hemp Plan’
- FDACS – New rule could include private permits

It is still illegal to grow hemp without a permit in FL

Pilot Project Research Objectives

The Goal Support the future viability and sustainability of an industrial hemp industry

The Plan Industry funded research and outreach at UF/IFAS research facilities with a multidisciplinary team to:

- Identify hemp varieties suitable for planting in Florida's various environments
- Develop hemp management practices and cropping systems economically viable for Florida
- Assess hemp invasion risk in Florida's natural and built environments

UF/IFAS Research Team

- **Dr. Zachary Brym**, Project Coordinator, South Florida location
- **Dr. John Erickson**, Central Florida location
- **Dr. Michael Mulvaney**, North Florida location
- **Dr. Josh Freeman**, North Florida location
- **Dr. Luke Flory**, Invasion risk analysis
- **Dr. Edward Evans**, Economic analysis
- **Dr. Bonnie Avery**, Analytical chemistry
- **Jerry Fankhauser**, FL Ag. Experiment Station-UF/IFAS Research
- **Dr. Robert Gilbert**, UF/IFAS Dean of Research

Pilot Project Research Activities

Hemp Varieties

- 31 certified varieties identified so far for testing
- Germination, flowering, height, biomass, yield, disease, THC, CBD
- Planting date trial with best cultivars in year two

Hemp Management

- Field production (3 production sites, 7-10 acres each site)
- Spacing Trial, Fertilizer trial

Invasion Risk

- Greenhouse (light, water, soil response) and field trials
- Control measures to minimize escape
- Modeling invasion risk across FL

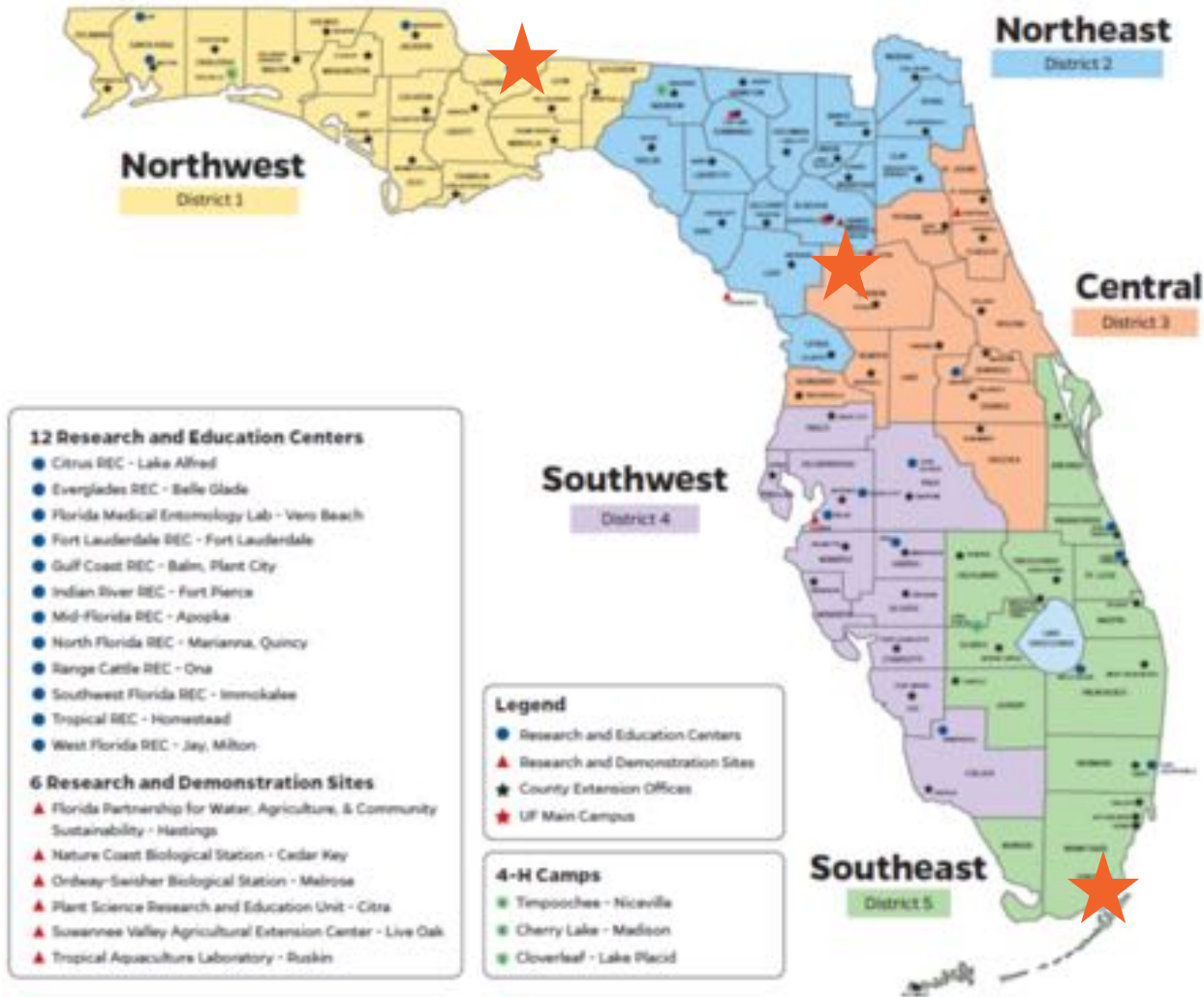
Pilot Project Field Locations

Beginning in spring 2019, field studies will commence at the following locations:

- North Florida Research & Education Center, Quincy (NFREC-Quincy)
- Tropical Research and Education Center, Homestead (TREC)
- Agronomy Forage Research Unit, Hague (AFRU)
- Bivens Arm, Gainesville



UF/IFAS Statewide Facilities



Why only at UF facilities?

The State of Florida and FDACS set all of the pilot project risk and liability on UF.

The risks

- Seed import and transportation
- THC testing and hot plants
- Biosecurity and invasion potential
- Lack of registered agrochemicals
- Personal security, theft, and law enforcement
- Bond requirements and financing

FDACS would have to permit farms for private hemp grow

Ways to Get Involved

Program Activities

- Workshops
- Field days

Advisory Group

- Oversee program execution
- Aid in program decisions

Qualified Project Partners

- Formal collaborator opportunity

Project Sponsors

- Workshops and Field Days
- Research Activities



Pilot Project Workshops

Objectives

- Generate interest in the industry
- Prepare industry with information necessary to grow hemp
- Support permitting and regulatory process



Pilot Project Workshops – Aug '18

Objectives

- Generate interest in the industry
- Focus group discussions
- Introduce ways to get involved

Registration

- Quincy 50
- Citra 162
- Homestead 52



Pilot Project Advisory Group

Mission Use diverse experiences and backgrounds to provide feedback for the UF hemp program and also support the development of the hemp industry in the state of Florida.

Membership Selected 14 members from diverse backgrounds in farming, research, business, law, and medicine

Meeting Met in December 2018 for introduction and will establish process, procedure, and priorities early 2019

Qualified Project Partners

Process

- Included in the UF planting permit (FDACS 5B-57.01)
- We are not accepting 'business plans'

FDACS Permit Application, Section 13

- QPP principal place of business in Florida
- Demonstrate a 'meaningful contribution' within UF research plan

Meaningful Contributions

- Growers – consultant/volunteer at UF field site
- Industry – materials, technology, and equipment for production and processing

Pilot Project Sponsorship

Sponsored Programs' Research Agreement – \$1.3 million



- First sponsor required for UF BOT approval and project initiation
- Current pilot project objectives and research activities

Florida Industrial Hemp Endowment – \$10,000

- Multiple sponsors critical to our purpose
- Additional objectives and sites
 - High-CBD varieties - \$250,000
 - Propagation and indoor grow - \$750,000 (Apopka)
 - Communications - \$250,000
 - Hemp products incubator - \$1.5 million
 - Additional sites - \$500,000 per site (Belle Glade, Jay, Ona)
- Donate to Fund #023613 <https://www.uff.ufl.edu/>

Pilot Project Sponsorship Purpose

“We are committed to develop broad collaboration, partnership, and sponsorship with growers, industry, and other universities. Our collective goal is to develop a viable hemp industry for Florida supported by the best available information and technology.”

Pilot Project Workshops Sponsors

Program Sponsors



Farmhouse Tomatoes

Lunch Sponsors



Refreshment Sponsors



Timothy F Stanfield, Attorney at Law

Partner and Sponsor Next Steps

1. Reflect on partnership and sponsorship opportunities.
2. Commit to our collaborative approach.
3. Reach out to folks that might be able to complement or help support your objective.
4. Send an email with your ideas.
 - Zack Brym, brymz@ufl.edu
5. We'll get back to you to continue the conversation.

We hope guidance from UDSA and FDACS this year will more clearly define a path to permit private hemp production and processing. We're here to support the industry and will continue with updates through our newsletter.

A large, detailed sculpture of an alligator, likely the one at the University of Florida's H. Rouse Caffery Alligator Exhibit. The sculpture is shown in a dynamic pose, with its head raised and mouth open, revealing sharp teeth. It is situated in an outdoor park-like setting with trees and a paved walkway in the background. The entire image has a blue and orange color overlay.

<https://programs.ifas.ufl.edu/hemp/>

THANK YOU!

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UF/IFAS Statewide Facilities

