

# Hemp Education in Alabama: Creating an Extension Program for a “New” Crop

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## Introduction

While hemp was a major crop in the United States for much of the 19<sup>th</sup> and 20<sup>th</sup> centuries, production declined and eventually stopped following restrictive laws and the popularity of other less expensive fibers<sup>1,2</sup>. With the 2014 and 2018 Farm Bills<sup>3,4</sup>, we saw a national resurgence of hemp with more producers licensed to grow every year for the last 5 years<sup>5</sup>. There was a 4700% increase in U.S. acres planted from 2016-2020<sup>5</sup>. In Alabama, the number of licensed growers tripled from the first (2019) to second (2020) year of legal hemp production<sup>6</sup>.

**This sudden interest in hemp provides Extension programs a unique opportunity to connect with new growers and provide research-based information throughout the region.**

## Extension Response

In early 2020, the Alabama Cooperative Extension System (ACES) organized educational meetings (Fig. 3) throughout the state with over 500 total attendees (Fig. 4, 5).

*Topics included:*

- Economics (Jessica Kelton)
- Basics of Hemp Production (Dr. Joe Kemble)
- Greenhouse Production (Dr. Jeremy Pickens)
- Controlling Weeds (Neil Kelly and Rudy Yates)
- Insect Pest Management (Dr. Katelyn Kesheimer)
- Diseases of Hemp (Dr. Kassie Conner)



Figure 3. Flyer advertising 7 Hemp Production Meetings throughout Alabama

## Impacts

- Growers reported saving an average of \$106 per field with the educational information provided by ACES
- Some growers reported that they saved their entire investment with knowledge gained from the meetings
- 89% of respondents at ACES meetings reported an increase in knowledge gained
- 98% of respondents at ACES meeting said they will use the information from the meeting
- The Southern Hemp Research and Extension Facebook page reached 7,687 people with 1,122 engagements in its first 9 months
- A research program was established at Auburn University that is seeking to answer questions directly related to grower feedback. We are investigating pest management strategies, variety selection, and fertility management. In 2020, an on-farm trial was conducted with a grower-cooperator and we scouted for insects, weeds, and diseases at multiple grower-cooperator fields.

*Grower from Birmingham, AL:*

- “They were all informative and offered their numbers to help...I probably would have bought something with the word ‘hemp’ on it and lost money...Now I feel like I can counsel with them instead of paying a \$250 consultant fee. So thankful for all the info.”

## Needs Assessment

A Qualtrix survey was used to identify major obstacles for successful hemp production in the southeast. We also sought to learn where producers went for information.

Major Production Issues:

- Diseases [Southern blight (Fig. 1), bud rot]
- Insects [caterpillars (Fig. 2), fire ants, and mites]
- Weeds (Nutsedge, morningglory)
- Identifying processors and buyers
- Labor costs

Where Growers go for Information:

- Extension agent/service (11.7%)
- University diagnostic lab service (9.6%)
- Fellow Farmers (39.7%)
- Find information online (30.8%)
- Other (8.2%)



Figure 4. Hemp Production Meeting in Cullman, Alabama



Figure 5. Hemp Production Meeting in Birmingham, Alabama

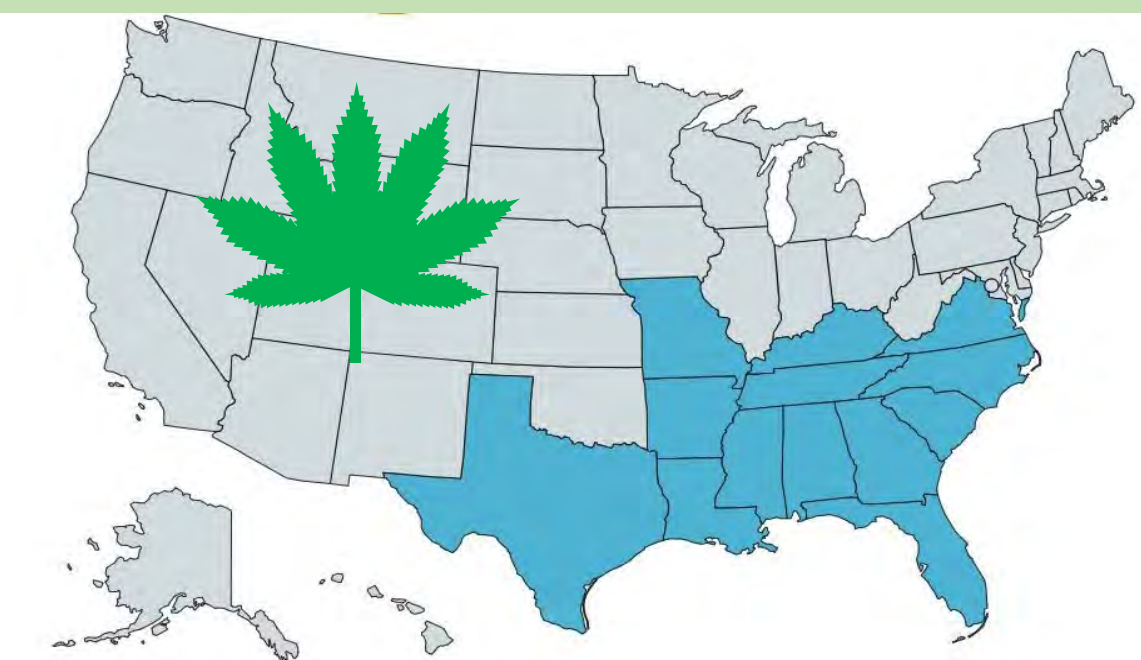


Figure 6. Logo for the new Southern Hemp Research and Extension Facebook page

## Virtual Extension Response

COVID-19 presented unique challenges with regard to educational delivery methods. In 2020, we used multiple methods including peer-reviewed Extension publications (3), Extension articles (4), and webinars (6) to connect with growers virtually.

In June 2020, a new Facebook page, Southern Hemp Research and Extension (Fig. 6), was created. This page is the result of a collaborative effort of Extension and research personnel from 11 states in the region. We post pest alerts, management recommendations, event updates, research findings, and live stream webinars.

In November 2020, we organized additional meetings (3) at the end of the growing season to get feedback from growers on their biggest challenges from the year (Fig. 7). These “Virtual Roundtables” created a space for peer-to-peer learning and networking opportunities for producers and others in the hemp industry, and allowed Extension personnel to both give and gather information.

ACES worked in collaboration with the Alabama Department of Agricultural and Industries (ADAI) to promote legal pesticide use. Following federal and state guidelines for hemp and pesticides, we created a list of pesticides growers can legally apply to hemp to help manage pest problems. We published the first “Integrated Pest Management Guide for Hemp in Alabama” in fall 2020 (Fig. 8).

We worked to educate the general public on hemp and its historical comeback. ACES conducted numerous local newspaper, radio, and television (Fig. 9) interviews. We also provided information for online publications and magazines



Figure 7. Flyer advertising 3 ‘hybrid’ Hemp Roundtable Discussions



Figure 9. Dr. Katelyn Kesheimer giving an interview to a local television station outside a Hemp Production Meeting

## Conclusions and Future Programming

- Since the legalization of commercial hemp production in Alabama, ACES has forged collaborative working relationships with local growers, the Alabama Department of Agriculture and Industries, and other universities throughout the United States
- With a ‘new’ crop, Extension truly became a two-way street when we were learning as much from growers and industry representatives as we were teaching them
- Even with the challenges presented by COVID-19, we were able to introduce hundreds of new growers to the resources available from the Extension service, increase knowledge and adoption of pest management strategies, and conduct on-farm research with local hemp growers
- In 2021, we are hosting a bimonthly H.E.M.P. (Hemp Education and Management Program) Webinar Series featuring speakers from across the country that include researchers, Extension personnel, industry representatives, and local growers



Figure 1. Symptoms of Southern Blight on an outdoor hemp plant



Figure 2. A corn earworm, *Helicoverpa zea*, on a flowering hemp plant

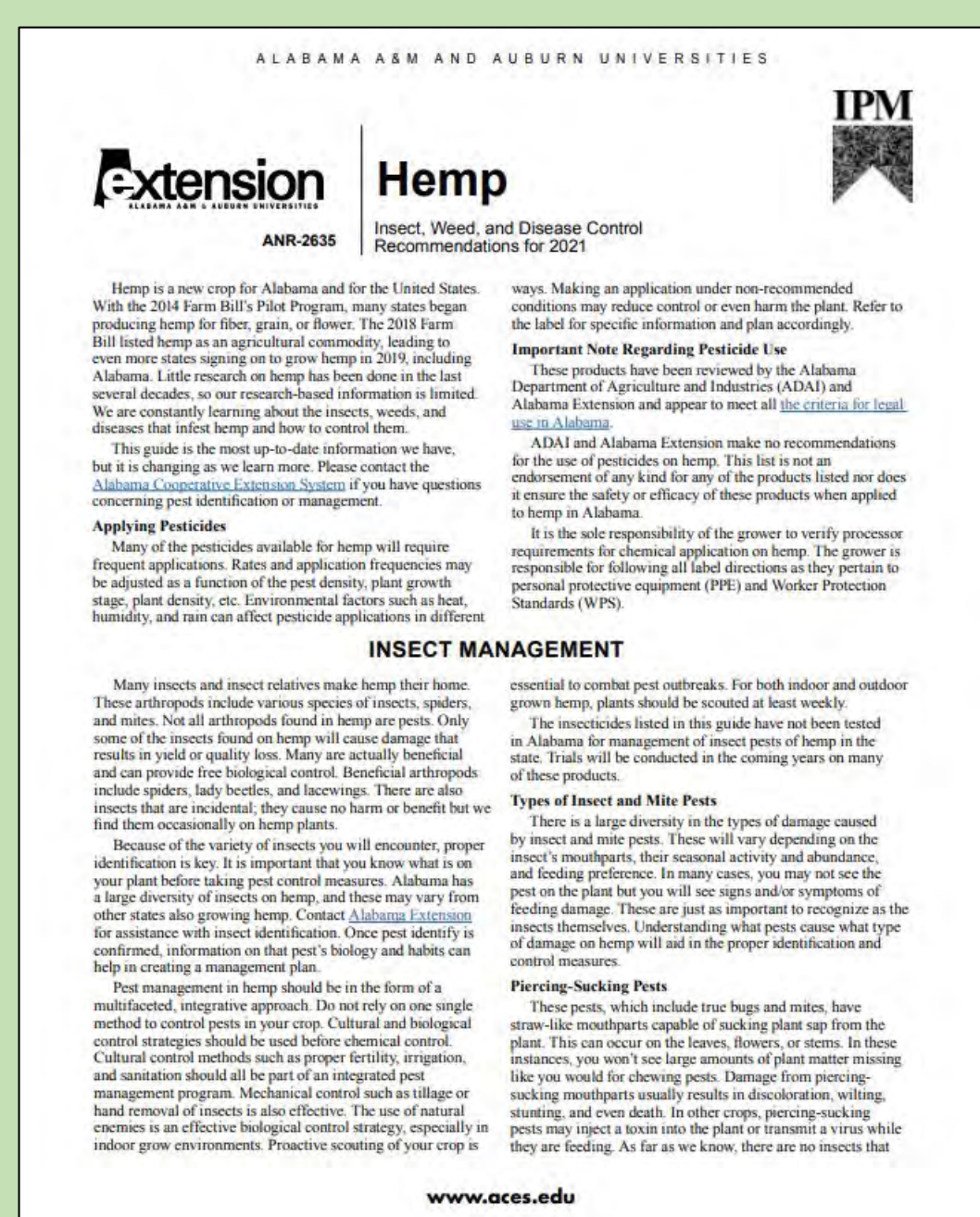


Figure 8. The new 2021 Hemp IPM Guide for Alabama

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