



# CANNA DAWGS NEWSLETTER

[WWW.CANNABISCENTER.SIU.EDU](http://WWW.CANNABISCENTER.SIU.EDU)



NEWSLETTER DESIGN, KATHERINE ACCETTURA





# CANNA DAWGS NEWSLETTER

WWW.CANNABISCENTER.SIU.EDU



SOUTHERN ILLINOIS

## HEMP CANNABIS SYMPOSIUM

09.17.2022

### FIBER AND SEED CROPS AND THEIR COMMODITIES

CHRIS BERRY

Illinois Hemp Growers Association

OUSSAMA BADAD

Trilogene

DK LEE

University of Illinois

PATRICK VAN METER

Midwest Natural Fiber

JUSTIN SWANSON

Midwest Hemp Council

JACOB WADDELL

US Hemp Building Association

RYAN DOHERTY

Hemp Ventures



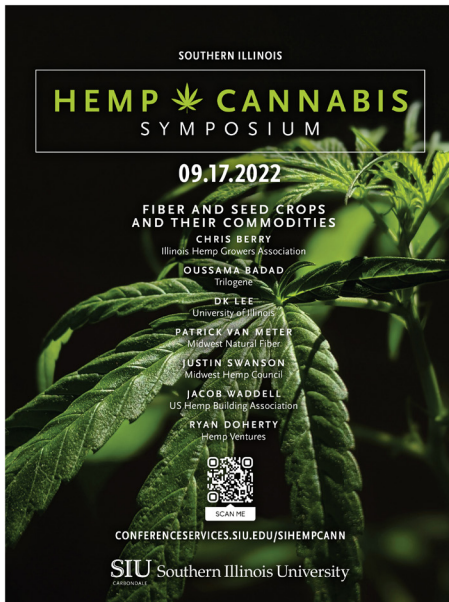
SCAN ME

[CONFERENCESERVICES.SIU.EDU/SIHEMPCANN](https://conferenceservices.siu.edu/sihempcann)

**SIU** Southern Illinois University  
CARBONDALE



## TWO BIG EVENTS SPONSORED BY THE CANNABIS SCIENCE CENTER IN SEPTEMBER



**SEPTEMBER 17, 2022**  
**AT SIU STUDENT CENTER**  
**SIU HEMP/CANNABIS SYMPOSIUM**

*See You In  
September*

### IN THIS ISSUE:

- PAGE 4-5: LINEUPS AND SCHEDULES FOR THE SYMPOSIUM AND FESTIVAL
- PAGE 6: COMMUNITY SHOUT OUT: COLE PRESTON AND THE CHILLINOIS PODCAST
- PAGE 7-9: FACULTY SPOTLIGHT: KARLA GAGE



**SEPTEMBER 24, 2022**  
**NEW EDUCATIONAL FESTIVAL**  
**IN CARBONDALE**  
**SIU FAMILY WEEKEND**  
**OFF THE RAILS CONCERT**  
**FEATURING THE SCIENCE OF:**  
**CANNABIS, MUSHROOMS, AND FERMENTATION**





## SOUTHERN ILLINOIS 3RD HEMP/CANNABIS SYMPOSIUM

The third Southern Illinois Hemp/Cannabis Symposium is Saturday, September 17 at Southern Illinois University Carbondale from 8am-2pm. Join us as our speakers cover topics related to growing hemp for fiber and seed crops, and their commodities on local, regional, national, and international levels.

(Learn more at [www.ConferenceServices.siu.edu/hempcann](http://www.ConferenceServices.siu.edu/hempcann)).

### What is this conference all about?

The symposium is targeted toward anyone with an interest in learning more about the possibilities of growing and marketing hemp/Cannabis products. Speakers will focus on statewide efforts in Illinois, as well as broad efforts across the Midwest, touching on Farm Bill issues and Federal regulations. Hemp breeders will discuss the development of new cultivars, optimized for Illinois or for use in unique row crop production systems where fiber, seed, and cannabinoids can be harvested from the same crop. The development of a business model for taking fiber hemp from the farm to the processing facility will be discussed by a leading innovator. Participants will also hear about new developments in the use of hemp materials in building and construction. Exhibitors and vendors will display modern production technologies in cannabis, in addition to consumer products.

### 3rd Symposium Speakers Include:

Chris Berry, Illinois Hemp Growers Association  
Oussama Badad, Trilogene  
DoKyoung Lee, University of Illinois  
Patrick Van Meter, Midwest Natural Fiber  
Justin Swanson, Midwest Hemp Council  
Jacob Waddell, US Hemp Building Association  
Ryan Doherty, Hemp Ventures

### Photos From 2nd Symposium:

Mark Peysecovick, MBM Advantage, Left.  
Ricky Hayward, JAIN Irrigation, Right.



SIU's Cannabis Science Center, whose mission includes formally establishing a collaborative network for cannabis research, is sponsoring this event. For more information and registration, visit the Southern Illinois Hemp/Cannabis Symposium website or contact Rebecca Dycus at [rdycus@siu.edu](mailto:rdycus@siu.edu).

Registration access coming soon.

**See you Saturday, September 17, 2022 from 8am-2pm!**



# CANNA DAWGS NEWSLETTER

WWW.CANNABISCENTER.SIU.EDU



## HEMP-HOPS-SHROOMS

JOIN US FOR A FREE EVENT IN CARBONDALE

**A NEW, EDUCATIONAL FESTIVAL IN SOUTHERN ILLINOIS.**

**SATURDAY, SEPTEMBER 24, 2022 (10AM - 10PM).**

Southern Illinois University's Cannabis Science Center joins forces with SIU Fermentation Science Institute, The City of Carbondale, Off The Rails Concert Series, Carbondale Mainstreet, and others, to bring a new event to Downtown Carbondale, IL during Family Welcome Weekend.

As outdoor Summer festivals begin to take place here in southern Illinois, we have been working hard to coordinate a new event, unlike any our city has ever seen before. Attendees of all ages will enjoy educational presentations from SIU Faculty on cannabis, fermentation, and culinary mushrooms. See local artists, vendors from 10am-3pm, live music from 11am-10pm, a kids' bounce house, giant interactive games, and a cooking with culinary cannabis and mushrooms demonstration. Additionally, you can BYOB your food and drinks from 10am-10pm, or support local nearby businesses, thanks to the City's new ordinance which allows for open containers within the designated areas of Downtown Carbondale.

Director and Department Chair at the Cannabis Science Center, and Departments of Physiology and Biochemistry & Molecular Biology, Dr. Dale Buck Hales, will present, "All About The SIU Cannabis Science Center and An Introduction to Cannabis Medicine", beginning at 10:00 am. Next, Dr. Karla Gage, Associate Professor of Weed Science and Plant Biology, SIU, will present, "Growing Hemp for Fiber and Seed". She has been instrumental in helping the Cannabis Science Center prosper. One of our newest, and most cannabis-focused, faculty presenters is Dr. Jose Leme, Jose Franco Da Chunha Leme Filho, PhD, who works with SIU's School of Agricultural Sciences and School of Biological Sciences, will be presenting,

"Studying Cannabis in an Academic Environment", showcasing his recent work with students in his cannabis-focused courses. Additionally, learn more about another incredible Southern Illinois University program from Dr. Matt Mccarroll, Professor and Founding Director of the Fermentation Science Institute at SIU.

Visit [www.CannabisCenter.siu.edu](http://www.CannabisCenter.siu.edu) or [www.MakandaMushroomFestival.com/hempshopshrooms](http://www.MakandaMushroomFestival.com/hempshopshrooms) to learn more, and get the full schedule and vendor lineup.

### LINEUP:

**10AM-2PM**  
EDUCATIONAL  
PRESENTATIONS ON:

**CANNABIS**  
**MUSHROOMS &**  
**FERMENTATION...**

#### **\*SPEAKERS INCLUDE\***

Dr. Buck Hales  
Dr. Karla Gage  
Dr. Jose Leme  
Dr. Matt Mccarroll  
& More.

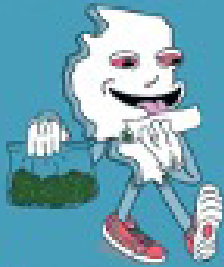
**10AM-3PM**  
VENDOR MARKET:  
**Local Artists & Vendors**

**1PM-10PM**  
MUSIC:  
Carr and Tejada  
T-Lex & More!



# COMMUNITY SHOUT OUT

## Chillinois



Join the conversation at  
[Chillinois.net](http://Chillinois.net)

### CHILLINOIS PODCAST

A platform for open discussions centered around civil liberties.

Article by Cole Preston (photo below), Host and Producer of Chillinois.

The Chillinois Podcast is a platform for open discussions centered around civil liberties. Since the legalization of adult use cannabis, the Chillinois Podcast has hosted several conversations around the topic of legal cannabis. The podcast can be streamed for free online at [Chillinois.net/Podcast](http://Chillinois.net/Podcast). My perspective has been featured in the Chicago Tribune, the Chicago Sun-Times, on GrownIn.com, and other publications. Most recently, I was featured in a working group that was hosted by the state of Illinois; where I spoke about the experience of cultivating cannabis at home.

The Chillinois Podcast has featured several key players in the cannabis industry. Recently, the podcast featured a lengthy interview with the cannabis regulation oversight officer for the state of Illinois. The podcast has also included perspectives from companies that currently operate within the Illinois cannabis industry, like Cresco Labs, NuEra, Acreage Holdings, and more. The podcast has helped to detail the perspectives of many prominent journalists, including Mike Foucher and Brad Spirrison from GrownIn.com, Tom Schuba and Stephanie Zimmermann from the Chicago Sun-Times, and Jackie Bryant from MJBizDaily.

The Chillinois Podcast recognizes the importance of education. The show has featured many prominent guests from higher education, like Dr. Buck Hales from SIUC, Dr. Karla Gage from SIUC, Dr. DokYoung Lee from UIUC, Dr. Sheila Simons from EIU, Justin Lieby from UIUC, and many others. For balance, the podcast has hosted debates with guests that are opposed to the legalization of cannabis.

Cannabis legends like Tommy Chong and the Pot Brothers at Law have both paid multiple visits to the podcast. To keep things fun, the podcast features conversations with comedians, musicians, and more. Tune in to the Chillinois Podcast to stay up to date with the latest and greatest in the cannabis industry and so much more. You can listen or watch the show for free online at [www.Chillinois.net/Podcast](http://www.Chillinois.net/Podcast) or wherever you stream podcasts.







# FACULTY SPOTLIGHT



### DR. KARLA GAGE UPDATES US ABOUT HER LATEST RESEARCH

Our faculty has been working hard to enhance our cannabis program here at SIU, and we wanted a chance to reintroduce you to one of the founding faculty members of the Southern Illinois Cannabis Science Center, Dr. Karla Gage, Associate Professor of Weed Science and Plant Biology, SIU.

(Dr. Karla Gage, photo left.)

#### What is your role at SIUC?

I am an associate professor and a weed ecologist, and the primary focus area of my research is weeds of concern in corn and soybean rotations. These weeds are primarily species that have evolved herbicide resistance and are no longer chemically controlled in genetically modified, herbicide tolerant crops. While my lab still focuses on controlling weeds with herbicides, we are also building projects to look at the effects of other

cultural control practices on the suppression of these “economic driver weeds” (or weeds that drive management decisions). We have been working on harvest weed seed control (HWSC) practices, based on the success of Australian farmers and the work of weed scientists such as Michael Walsh at the University of Sydney. HWSC is the practice of managing the return of seeds to the seedbank to decrease the numbers of weeds that compete with the crop in future years; sometimes this is done by destroying the seed by cracking the weed seed coat at the time of crop harvest. We also have several projects on using cover crops and interseeding other crops into the cash crop. These additional plants (cover crops or interseeded crops) can fill the space that weeds would normally occupy and reduce weed competition. And, since 2018, we have been working with hemp as a potential way to diversify crop rotations, based on research that shows that diversified crop rotations reduce the dominance of economic driver weeds, as well as other crop pests. This reduces weed pressure over time, because diversified management practices reduce the weeds’ ability to adapt and evolve over time. This is like what happens with antibiotic or herbicide resistance; once the same herbicide is used several times, in the same way, on the same population of weeds, it begins to “select” weeds with the ability to survive the application. Diversity is the key to successful weed control. [continued on next page]...



# CANNA DAWGS NEWSLETTER

WWW.CANNABISCENTER.SIU.EDU



## The SIU Cannabis Science Center Welcomes You!

---

### How did you start working with hemp?

SIU received a Research Pilot License from the Illinois Department of Agriculture in 2018, after the 2014 Farm Bill made it legal for universities to conduct research on hemp. Our work with hemp began with CBD cultivars, grown as a specialty crop with black plastic mulch and irrigation. Pollen flow was an initial management concern, and regarding getting started with a research project, we thought that growing a CBD crop could be done easier and on a smaller scale than direct seeding and establishing a hemp rowcrop. We started plants in the greenhouse over the winter/spring in 2018, and transplanted them into the field in May and June. We started our research by studying the effect of waterhemp (one of our main economic driver weeds in IL; not related to Cannabis) competition at different densities on the phytochemistry (cannabinoids and terpenes) and yield of a CBD hemp cultivar in a plasticulture system (Shikanai and Gage 2022) (a). We planted up to five waterhemp plants in the plastic mulch around a hemp plant, and we let the plants directly compete. We were surprised to learn that there were no changes in hemp yield or phytochemistry even with the most intense competition treatments. This supported the classic idea of hemp as a good competitor with other plants, once it is established.

### What are the best cultivars you've found to use in southern Illinois?

We've been researching the agronomy of fiber and dual-purpose (grown for fiber and seed) hemp for several years. In 2019, we joined the S1084 USDA dual-purpose hemp trials (b) to try to determine which cultivars are best suited for the geography of southern Illinois. This project is led by the University of Kentucky with participating universities from across the US. Our 2019 trial established, but this was planted late and therefore missed the high-intensity spring rainfall events we typically receive in our geography. The 2020 and 2021 trial was a "wash out", even with a replant each year. The ground stayed too wet for too long, and hemp does not grow well in saturated soil. The plants that established were then outcompeted by emerging weeds. Our experience is not unique to our other collaborators, and all the failures within our project have been valuable learning experiences for everyone. We think we are looking for a cultivar that is either 1) more tolerant to prolonged wet conditions and/or 2) able to be planted later to miss our heavy rainfall (so less photoperiod-sensitive, possibly auto flower) to be the most successful in southern Illinois. We have heavier soils than other areas of Illinois, so that also plays a role in what cultivars will be able to tolerate heavy rains. So far, we have found that the fiber cultivar 'JinMa' seems to be the most successful. We can plant it late, and the plants still establish and reach 6 to 8 feet tall.

### How does your work with hemp fit into the weed control work you're doing?

We've also looked at a proof-of-concept for the integration of the harvest weed seed control practice of chaff lining in a dual-purpose hemp crop (Shikanai and Gage 2022) (c). [continued on next page]...





# CANNA DAWGS NEWSLETTER

WWW.CANNABISCENTER.SIU.EDU



## The SIU Cannabis Science Center Welcomes You!

Chaff lining is a practice where the finest crop particulates and weed seeds that are harvested will enter the combine and be funneled out the back of the combine into a line of mulch. The weed seeds are concentrated in this line, where they may decay in the mulch, or at least are concentrated in a space where a non-selective herbicide can be banded over the top of any emerging weeds. Our research has also suggested that hemp residue is allelopathic. Allelopathic plants are capable of producing chemicals that affect the germination and growth of other plants around them; it is kind of like chemical warfare in the world of plant ecology. So, if we chaff line allelopathic hemp residue, any weed seeds that are deposited into hemp chaff would potentially be killed by these allelopathic compounds. We have shown this as a proof-of-concept greenhouse study, where we saw hemp chaff reduce waterhemp seed germination.

We have started a new grant project funded by United States Department of Agriculture (USDA)- National Institute of Food and Agriculture (NIFA)- Crop Protection and Pest Management (CPPM) (d) this year to look at the critical weed free period in hemp. We are removing weed competition from our hemp plots for 0, 1, 2, 4 or 6 weeks and looking at differences in growth and yield of hemp. This is requiring a good degree of time to hand-hoe the weeds out of hemp for these time intervals. Additionally, we are testing effects of hemp planting density and herbicide program. Currently, there are no herbicides labeled for use in a hemp crop in the US. For a rowcrop, where hemp is direct seeded into the soil, this can lead to a failed crop if the weeds germinate and grow faster than the hemp. We are testing: 1) no herbicide, 2) Sonalan (ethalfluralin) followed by Assure II (quizalofop), and 3) Dual (S-metolachlor) followed by Select Max (clethodim) on hemp growth and yield and weed competition. The herbicides Sonalan and Assure II may be registered for use in dual-purpose hemp in the US, possibly this year; however, this program has its flaws and may not control many of our weeds, hence the Dual + Select Max treatment that, unfortunately, will not be registered for use any time soon.

### Some final thoughts...

There seems to still be a lot of work needed to determine basic agronomic practices for dual-purpose and fiber hemp in our geography. Hopefully, hemp markets will develop, and this will be a way for farmers to diversify their rotations, which would benefit the production of all crops if herbicide resistant weeds can be suppressed. It has been exciting to be part of this process of re-learning how to grow this historic crop. We have some new ideas and new collaborators, and we look forward to what the future holds for hemp in Illinois.

### Sources:

- (a) <https://journals.ashs.org/horttech/view/journals/horttech/32/2/article-p99.xml>
- (b) <https://www.nimss.org/projects/view/mrp/outline/17716>
- (c) <https://www.frontiersin.org/articles/10.3389/fagro.2022.832471/full>
- (d) <https://cris.nifa.usda.gov/cgi-bin/starfinder/0?path=fastlink1txt&id=anon&pass=&search=R=93834&format=WEBLINK>

NEWSLETTER DESIGN, KATHERINE ACCETTURA