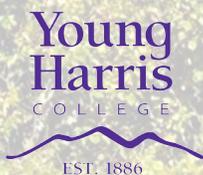


Beekeeping Institute

Celebrating 25 years!



**SPONSORED BY YOUNG HARRIS COLLEGE AND
THE UNIVERSITY OF GEORGIA HONEY BEE PROGRAM
YOUNG HARRIS, GA | MAY 18-21, 2016**

COVER PHOTO & PROGRAM DESIGN BY TABITHA WEAVER
INTERIOR PHOTOS BY BEN ROUSE & CINDY HODGES

ABOUT THE INSTITUTE

This year marks the 25th Anniversary of the partnership between Young Harris College and the University of Georgia Honey Program to provide one of the largest and most comprehensive beekeeping educational events in the southeastern United States. We're celebrating with more guest speakers than ever before, expanded classroom space and extra lecture topics -- so many things we had to add an extra day to fit everything in!

As always, our objective is to create an educational event that fits the needs of everyone, whether you're an experienced beekeeper or you're interested in getting your first hive. The Institute sponsors two additional and optional training opportunities – the Georgia Master Beekeeper Program and the Welsh Honey Judge certification Program. Details for these optional programs are included within this booklet.

The Institute proper, which takes place Thursday, Friday and Saturday, consists of lectures and workshops covering a vast range of beekeeping topics. Wednesday May 18 is dedicated to training and examinations for the Welsh Honey Judge program as well as the three highest grades of the Master Beekeeper Program – Journeyman, Master, and Master Craftsman. Training and exams for the Certified level are incorporated into the normal activities on Thursday, Friday and Saturday, and classes recommended for Certified candidates are highlighted in **blue**.

In 2015, our Institute's footprint increased drastically by adding the new 121,000 ft² Rollins Campus Center, located directly across the street from our long-time home, Maxwell Center. Classes will be held in both locations, so be sure to check the map in the back of this program for classroom locations.

One of the most rewarding opportunities at the Institute is the annual Honey Show. Along with honey, the Honey Show accepts entries in photography, art, candles, section comb honey, mead, and beekeeping gadgets. We urge students to participate in the Honey Show, even if you've never competed before. It costs nothing extra, and it's a fun way to see how your honey compares to others'. You can find the Honey Show rules in this booklet and on our website.

Thanks for joining us this year as we celebrate our silver anniversary!

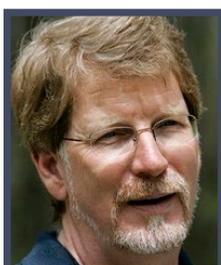


MEET OUR GUEST SPEAKERS



Dr. Dewey Caron

Dewey M. Caron is an Emeritus Professor of Entomology & Wildlife Ecology, at the University of Delaware, & Affiliate Professor in the Department of Horticulture at Oregon State University. He is a product of the Honey Bee program at Cornell University (PhD in Entomology with Dr Roger Morse). Professionally he has spent 40+ years teaching, doing bee extension and bee research at Cornell (1969-1970), University of Maryland (1970-1981) and University of Delaware (1981-2009). Dewey retired in 2009 and moved to Oregon to be near grandchildren and continue as volunteer Extension Bee Specialist and Affiliate Faculty for Oregon State University. He has been active in EAS since 1967 including organizing Short Course/Annual Meeting numerous times, most recent 2012 at University of Vermont and has served as board chair for 8 years (1991-99), as President (1986), and as EAS Foundation Chair (1999-2009). Dewey is currently the Master Beekeeper program advisor. Since moving to west coast he has been president (2010) and now is on executive Board of WAS. He has also been very active in Spanish speaking overseas extension development programs since 1981, currently with active projects in Mexico, Central America and Bolivia.



Dr. Jeff Pettis

As a research Entomologist in the USDA-ARS Bee Research Laboratory in Beltsville, Dr. Pettis leads a broad research effort to improve colony health by limiting the impact of pests and diseases on honey bee colonies. His research areas include; IPM techniques to reduce the impacts of parasitic mites and disease, effects of pesticides and pathogens on queen health and longevity, host-parasite relationships and bee behavior. Dr. Pettis serves on several international committees concerning bee health and is frequently interviewed by the media for his opinions on worldwide pollinator declines. Dr. Pettis received undergraduate and MS degrees from the University of Georgia and his doctoral degree in Entomology from Texas A&M University in 1992.



Dr. Jeff Harris

Jeff Harris is the extension/research apiculturist at Mississippi State University. He came to Mississippi after working for 15 years as a scientist with the USDA, ARS Honey Bee Breeding Lab in Baton Rouge, LA. He is best known for breeding lines of honey bees that express high levels of Varroa Sensitive Hygienic (VSH) behavior, which is a primary mechanism of resistance to Varroa mites. Prior to working with the government, he received a doctoral degree in insect physiology (Department of Zoology & Physiology) and a Master's degree in entomology (Department of Entomology) from Louisiana State University. Harris's long term research goal is to move from selected VSH lines that may be genetically narrow to a more genetically robust stock of VSH bees with several desirable commercial qualities. Although queens produced from pure lines of VSH bees retain a useful level of resistance after they have been mated to just about any other stock of bees, the resistance is only half of the pure lines. Pure lines suffer from narrow selection that has reduced much needed genetic variability, and many purebred VSH queens need to be supported heavily for their colonies to survive. By narrowly focusing on a single trait, Harris's previous breeding efforts missed the chance of producing a more sustainable stock with the VSH trait selected along with a suite of other important traits.

GUEST SPEAKERS, CONTINUED



Dr. Jim Tew

Dr. James E. Tew is the beekeeping specialist for the Alabama Cooperative Extension System, Auburn University and emeritus professor, The Ohio State University. Jim has taught classes, provided extension services, and conducted applied research on honey bees and honey bee behavior - specifically pollination behavior. Additionally, he continues to contribute monthly articles for national beekeeping publications and has authored: *Beekeeping Principles*, *Backyard Beekeeping*, a chapter in *The Hive and the Honey Bee*, and *Wisdom for Beekeepers*. He is a frequent speaker at state and national meetings and has traveled extensively to observe beekeeping techniques.



Dr. John Skinner

John Skinner is Professor and Extension Apiculture Specialist at the University of Tennessee where he has worked on research, teaching and extension for 25 years. Research has involved mite pest management, pesticides movement in soil and from seed treatments, pollination ecology of native and crop species, plantings for pollinators, and developing web based information about bees and beekeeping. He trains extension agents to work with local bee associations throughout Tennessee. He coordinates a Master Beekeeper Program, leads the Bee Health eXtension site and is part of the BIP and NAPPC to reduce colony losses. He enjoys reading, hiking, fly fishing and tying, singing and foraging with Dr. Delaplane and Ms. Jennifer Berry when they attend meetings and conferences together.



Dr. Jennifer Tsuruda

Originally from California, Jennifer has been studying honey bees for over 15 years. She received her PhD at the University of California at Davis and was a postdoc researcher at Purdue University (in Indiana) and has studied honey bee foraging behavior, reproductive physiology, behavioral resistance to mites, and genomic imprinting.

Since joining Clemson University as SC's Apiculture Specialist in 2014, she has been organizing and speaking at beekeeping meetings, developing training programs, guest lecturing, participating in field days, and holding outreach events. She has been working on pollinator protection projects with Clemson's Regulatory Services and has a research project on the effects of systemic insecticides on honey bees in ornamental plant landscapes.

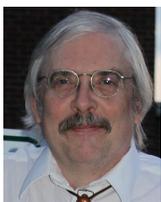
Active in the academic and beekeeping communities, Jennifer serves as past President of the American Association of Professional Apiculturists, Vice-Chair of the Heartland Apicultural Society, and past member of the Entomological Society of America's Student Transition and Early Professionals Committee. Clemson is quickly becoming her home and she looks forward to developing her career in SC and sharing her enthusiasm for honey bees.



Kim Flottum

Kim Flottum has been the Editor of *Bee Culture Magazine* for almost 30 years. He is past Chair of EAS, Past President of Ohio State Beekeepers, Vice President of Medina County Beekeepers and the author of several beekeeping books, ranging from basic beginners, to advanced skills, plus cooking with honey and honey tasting. He lives in Medina Ohio with his wife Kathy, a couple of cats, a whole flock of chickens, a garden and a backyard beeyard with who knows how many hives today.

MEET OUR STAFF & INSTRUCTORS



Paul Arnold
Institute Co-Founder,
Young Harris College



Keith Delaplaine
Institute Co-Founder
University of Georgia



Robert Brewer
Institute Co-Founder
Ret. Towns Co. Extension



Jennifer Berry
UGA Bee Lab
Apicultural Research Mgr.



Nicholas Weaver
UGA Bee Lab
Apiary Manager



Ben Rouse
UGA Bee Lab Staff
& Professional Artist



Brett Nolan
UGA Bee Lab
Ph.D. Candidate



Jack Garrison
UGA Bee Lab Staff



Tabitha Weaver
Institute Manager
& Graphic Designer



Nathan Beach
UGA Bee Lab Staff



Keith Fielder
Putnam Co. Extension
WHJ Program Director



Bob Binnie
Blue Ridge Honey Co.



Kim Bailey
Environmental Educator



Cyndi Ball
Lazy B Farm



Mary Cahill-Roberts
GA Master Beekeeper
Pediatric Nurse Practitioner



Will Dix
Emergency Physician
ACEP Fellow



Lonnie Funderburg
2-Term President ABA



Cindy Hodges
President, MABA
GA Master Beekeeper



Tom Hill
Mead & Melomel Brewer
Former High School Teacher



Slade Jarrett
Jarrett Apiaries



Bear Kelley
Bear's Bees
Past President, GBA



Wil Montgomery
GA Master Beekeeper



Bill Owens
Georgia Bee Removal
GA Master Craftsman



Tom Rearick
GA Master Beekeeper



Lance Wilson
GA Master Beekeeper

GEORGIA MASTER BEEKEEPER PROGRAM

CERTIFICATION LEVELS:

- Certified
- Journeyman
- Master
- Master Craftsman

WHERE TO FIND

REQUIREMENTS:

- On our website:
[ent.uga.edu/
bees/master-
beekeeper/
index.html](http://ent.uga.edu/bees/master-beekeeper/index.html)

QUESTIONS/COMMENTS:

- Dr. Keith
Delaplane
ksd@uga.edu

In 2016, the Georgia Master Beekeeper Program (GMBP) is offering qualifications at the Certified, Journeyman, Master, and Master Craftsman levels. If you are interested in beginning this program, sign up for the "Certified exam" during the registration process and attend the conference lectures and exams on Thursday and Friday. If you are sitting for exams at the Journeyman level or higher, you need to attend the sessions on Wednesday, which are included in your exam fee. Applicants to any level must mark their intention on the registration form and pay the appropriate fees. Payment of fee does not guarantee a passing grade. Aspirants to all grades must meet advance requirements detailed on our website (see link to the left). Applicants at the Certified level must have had beekeeping experience prior to the Institute. **(NOTE: Beginning this year, Certified candidates will be required to document at least one year prior beekeeping experience before sitting for exams).** All exam questions are drawn from Institute lectures, lecture notes on the website, and other sources publicly available. It is understood that applicants will bring to the exam a degree of independent and prior knowledge. The official reference text for the program is the 2007 edition of First Lessons in Beekeeping, Dadant & Sons.

WELSH HONEY JUDGE PROGRAM

CERTIFICATION LEVELS:

- Level I
- Level II (Senior)

WHERE TO FIND

REQUIREMENTS:

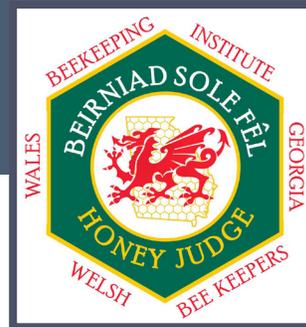
- On our website:
[ent.uga.
edu/bees/
young-harris/
certifications.html](http://ent.uga.edu/bees/young-harris/certifications.html)

QUESTIONS/COMMENTS:

- Keith Fielder
kfielder@uga.edu

The Welsh Bee Keepers Association (UK) partnered with the YHC-UGA Beekeeping Institute in the early 2000s to develop a unique North American version of the honey testing standards employed in the United Kingdom. Compared to American standards, the UK standards are strikingly more "sensory" than analytical. This was the first collaboration of its kind between the USA and United Kingdom and has since expanded into a sister program with the University of Florida. One can become a certified Welsh Honey Judge (WHJ) in one year. It takes at least one additional year to achieve the rank of Senior WHJ, although candidates for both levels may proceed through the certification process at their own pace.

Please consult the full program description on our website (listed to the left). If you wish to sit for this training please indicate your intention on the registration form and include the appropriate fee. Questions may be addressed to program director Keith Fielder.



HONEY SHOW RULES

ENTRIES WILL BE ACCEPTED FROM 8:00 A.M. UNTIL 11:45 A.M. FRIDAY IN ROLLINS - SEMINAR ROOM # 257.



- Only registered Institute participants may enter.
- Judges, stewards, and show secretary are disqualified from competition.
- Institute reserves the right to limit the number of entries on a first-come, first-admitted basis.
- There are fourteen show classes: (1) extracted honey light, (2) amber, (3) dark, (4) chunk honey, (5) black jar, (6) cut-comb, (7) creamed honey, (8) mead, (9) flavored mead, (10) beeswax cake (a single molded piece of two pounds or more), (11) candle (poured or dipped, straight or ornamental), (12) original bee-related photography, (13) original bee-related art, and (14) beekeeping gadgets. Contestant may enter in any or all classes but may enter only once per class.
- All honey and beeswax entries must have been produced by the submitter and within the last 12 months. This restriction does not apply to entries in mead, photography, art, and gadgets.
- All entries for honey and candles must be submitted in triplicate: i.e., three matching jars of honey, three boxes of cut-comb, or three candles. The only exemption is black jar; one is enough.
- Submit extracted honey in standard one-pound Gamber or queenline-type jars. Either plastic or glass is acceptable; jars with tamper-proof seals will be disqualified.
- Submit chunk honey in standard one-pound chunk honey jars with wide mouths and straight sides. Insert only one piece of comb in jar.
- Submit mead in clear 750 ml bottles.
- The sole criterion in the black jar class is flavor. Bring entry in a jar spray-painted black.
- Beeswax entries must be pure beeswax.
- Art and photography must be presented in a self-standing frame, and each accompanied with a 3 x 5 card giving the title, artist, and brief "story" behind the piece.
- Do not label products in any way; an identifying code sticker will be assigned to your entry at registration

JUDGING CRITERIA ARE SELECTED AT THE DISCRETION OF SENIOR JUDGE. ALL ENTRIES ARE JUDGED ON INDIVIDUAL MERIT; CLASS RIBBONS ARE AWARDED AT JUDGE'S DISCRETION.

EACH INDIVIDUAL WILL CERTIFY BY A SIGNED AFFIDAVIT UPON MAKING AN ENTRY INTO THE INSTITUTE HONEY SHOW THAT SAID ENTRY WAS PRODUCED DIRECTLY BY THE SHOW ENTRANT.

WEDNESDAY | MAY 18, 2016

Today's emphasis is on lectures and exams for **Journeyman, Master, Master Craftsman,** and **Welsh Honey Judge** candidates. Only those who have registered for one of these exams and have paid the appropriate fees may attend the lectures, audits and exams.

Certified practical exams are offered by appointment today from 1-4 p.m., all day Thursday, and only in the morning on Friday. Candidates for the Certified Beekeeper certification must complete **THREE** parts to the exam: inside practical, outside practical, (both by appointment) and a written exam on Friday from 1:15 - 2:00 p.m.

8:00	JOURNEYMAN LECTURES MAXWELL ROOM 116 8:00 Basic Toxicology 8:30 Hive Products & Honey Labeling 9:00 Plant Pollination	MASTER LECTURES MAXWELL ROOM 117 8:00 Plant Pollination & Conservation Ecology 8:30 State-of-the-Art Varroa Control 9:00 Varroa Resistance Mechanisms
------	---	---

9:30 **BREAK**

10:00	JOURNEYMAN LECTURES MAXWELL ROOM 116 10:00 Disorders I 10:30 Disorders II 11:00 Bees, Near Bees, & Bee Nest Assoc I 11:30 Bees, Near Bees, & Bee Nest Assoc II	MASTER LECTURES MAXWELL ROOM 117 10:00 Advanced Pathology 10:30 Advanced Toxicology 11:00 Drivers of Bee Decline 11:30 Highlights for the Exam
-------	---	---

12:00 **LUNCH GRACE ROLLINS DINING ROOM (LEVEL 1 IN ROLLINS CENTER)**

1:00 to 4:00	CERTIFIED PRACTICAL EXAMS MAXWELL 113 & 114 Exams are available by appointment only. If you are scheduled to take your exam at this time, make sure to take both the indoor and outdoor practicals. Remember: candidates must also sit for the written exam on Friday at 1:15 p.m.	JOURNEYMAN PRACTICAL EXAMS MAXWELL 109	WELSH HONEY JUDGE TRAINING LECTURES ROLLINS LEVEL 2 Please note that WHJ qualifications have changed. New rules can be found at ent.uga.edu/bees/young-harris/certifications.html	MASTER & MASTER CRAFTSMAN AUDITS MAXWELL 116 You must provide all documentation for certification at this time. Please see requirements at ent.uga.edu/bees/master-beekeeper/levels.html
		JOURNEYMAN AUDITS MAXWELL 110	JOURNEYMAN AND MASTER WRITTEN EXAMS MAXWELL 116	WELSH HONEY JUDGE EXAMS & AUDITS ROLLINS LEVEL 2

THURSDAY | MAY 19, 2016

IMPORTANT NOTES:

- Registration is open from **7 AM until 5:30 PM** today, and will be closed during lunch.
- Course descriptions can be found in the back of this program.
- Courses highlighted in **BLUE** are recommended for beginning beekeepers and/or Certified Exam registrants. Please check your appointment time for practical exams.
- **Honey show entries are due by 11:45 a.m.** See page 7 for more information.

Please do not ask Institute instructors for copies of their digital presentations.
There are many copyright and intellectual property difficulties.

8:00

WELCOME AND OPENING DETAILS

ROLLINS SUBER BANQUET HALL - Keith Delaplane

8:15

WHAT SUCCESSFUL BEEKEEPERS DO ABOUT LOSSES

ROLLINS SUBER BANQUET HALL - Dewey Caron

9:15

The Irrational Robbing Behavior of Honey Bees
Rollins Suber
Jim Tew

Getting Started: The Principles
Rollins Hatcher
Nicholas Weaver

Biology of Individuals
Maxwell 117
Dewey Caron

Biology of the Colony
Maxwell 116
Jennifer Tsuruda

Off-Season Management
Behind Maxwell
Slade Jarrett

Hive Equipment for the Commercial Beekeeper
Maxwell 108
Bob Binnie

Treasures from the Hive I
Maxwell 109
Cyndi Ball

10:15

Honey Plants of the Southeast
Rollins Suber
Keith Fielder

Getting Started: The Principles
Rollins Hatcher
Will Dix

Biology of Individuals
Maxwell 117
Lonnie Funderburg

Biology of the Colony
Maxwell 116
John Skinner

Off-Season Management
Behind Maxwell
Nathan Beach

Hive Equipment for the Commercial Beekeeper
Maxwell 108
Bob Binnie

Treasures from the Hive I
Maxwell 109
Cyndi Ball

11:15

Honey Plants of the Southeast
Rollins Suber
Keith Fielder

Getting Started: The Principles
Rollins Hatcher
Nicholas Weaver

Biology of Individuals
Maxwell 117
Dewey Caron

Biology of the Colony
Maxwell 116
Jennifer Tsuruda

Off-Season Management
Behind Maxwell
Slade Jarrett

Creating Pollinator Gardens
Maxwell 107
Kim Bailey

Honey Bee Nutrition
Maxwell 106
Kim Flottum

12:15

LUNCH FOR GENERAL REGISTRANTS - ROLLINS CAFETERIA

Advance tickets for lunch will be sold in the Maxwell lobby by a representative from the Young Harris dining facility.

12:15

INVITATIONAL MASTER LUNCHEON - ROLLINS SUBER

LUNCHEON ADDRESS: HAVE WE MOVED BEYOND THE MOVEABLE FRAME? - Jeff Pettis

This luncheon is open to sitting Master and Master Craftsman beekeepers only. Pre-registration is required.

CERTIFIED PRACTICAL EXAMS AVAILABLE BY APPOINTMENT

THURSDAY | CONTINUED

CERTIFIED PRACTICAL EXAMS BY APPOINTMENT

1:15

The Almond Odyssey & How it Affects You
Rollins Suber
 Kim Flottum

Parasites
Rollins Hatcher
 Paul Arnold

Pathogens
Maxwell 117
 Cindy Hodges

Getting Started: The Real Thing Behind
Maxwell
 Will Dix

Honey: the Inside Story
Maxwell 116
 Bear Kelley

Creating Pollinator Gardens
Maxwell 107
 Kim Bailey

Practical Stock Improvement for the Hobby Beekeeper
Maxwell Planetarium
 Lonnie Funderburg

2:15

Neonics in the Southeast
Rollins Suber
 Jeff Harris

Parasites
Rollins Hatcher
 John Skinner

Pathogens
Maxwell 117
 Brett Nolan

Getting Started: The Real Thing Behind
Maxwell
 Nicholas Weaver

Ten Mistakes New Beekeepers Make
Maxwell 116
 Keith Fielder

Treasures from the Hive II
Maxwell 109
 Cyndi Ball

Honey Bee Cognition
Maxwell Planetarium
 Tom Rearick

3:15

Reproductive physiology
Rollins Suber
 Jennifer Tsuruda

Parasites
Rollins Hatcher
 John Skinner

Pathogens
Maxwell 117
 Cindy Hodges

Getting Started: The Real Thing Behind
Maxwell
 Will Dix

Ten Mistakes New Beekeepers Make
Maxwell 116
 Keith Fielder

Treasures from the Hive II
Maxwell 109
 Cyndi Ball

Honey Bee Nutrition
Maxwell 106
 Kim Flottum

6:00

LOW COUNTRY BOIL/GROUP DINNER - THE RETREAT AT HIAWASSEE RIVER

At tonight's event, we will present the new Journeyman, Master, Master Craftsman, and Welsh Honey Judges.

GROUP DINNER INFORMATION

LOCATION:

Hiawassee River Retreat

GPS ADDRESS:

15 Cabin Drive
 Hiawassee, GA 30546

PHONE:

(706) 896-7400

WEBSITE:

www.hiawasseecabins.com

DRIVING DIRECTIONS FROM YOUNG HARRIS CAMPUS:

- Turn **RIGHT** onto GA-2 E/US-76 E/Main Street.
- Drive straight for 10.8 miles
- Turn **RIGHT** onto GA-75 S
- Drive straight for 1.3 miles
- Turn **RIGHT** onto Cabin Drive
- Follow the road until you reach the pavilion (it will be on your **left**) and park in the grass behind the building.

If you are in need of additional directions or assistance, please stop by the registration desk before 5:30 p.m. or call Tabitha at (770)744-5280.

FRIDAY | MAY 20, 2016

IMPORTANT NOTES FOR FRIDAY:

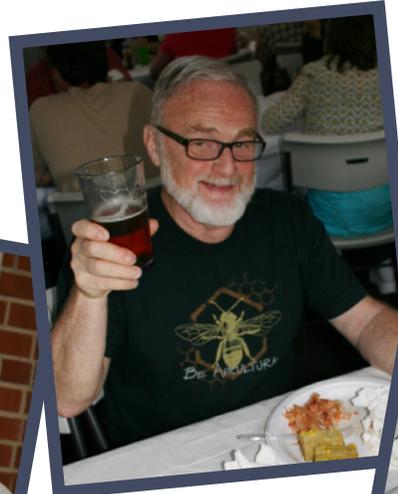
- Registration is open from **7 AM until 5:15 PM** today, and will be closed during lunch.
- Course descriptions can be found in the back of this program.
- Courses highlighted in **BLUE** are recommended for beginning beekeepers and/or Certified Exam registrants. Please check your appointment time for practical exams.
- **Honey show entries are due by 11:45 a.m.** See page 6 for more information.

Please do not ask Institute instructors for copies of their digital presentations.
There are many copyright and intellectual property difficulties.

8:00	CERTIFIED PRACTICAL EXAMS AVAILABLE BY APPOINTMENT	WELCOME AND OPENING DETAILS ROLLINS SUBER BANQUET HALL - <i>Keith Delaplane</i>						
8:15		WHY ARE QUEENS FAILING? ROLLINS SUBER BANQUET HALL - <i>Jeff Pettis</i>						
9:15		Honey Bee Anatomy Rollins Suber Brett Nolan	Safety & Biomechanics in the Apiary Rollins Hatcher Mary Cahill-Roberts	Building Hive Equipment Maxwell 108 Lonnie Funderburg	Spring Management Behind Maxwell Slade Jarrett	Basic Honey Processing Maxwell 117 Bill Owens	Business Considerations for Expanding Your Operation Maxwell 107 Bob Binnie	Alternative Hive Designs: Pros & Cons Maxwell 109 Nathan Beach
10:15		Breeding for Varroa Resistance Rollins Suber Jeff Harris	Safety & Biomechanics in the Apiary Rollins Hatcher Mary Cahill-Roberts	Building Hive Equipment Maxwell 108 Lonnie Funderburg	Spring Management Behind Maxwell Lance Wilson	Basic Honey Processing Maxwell 117 Bill Owens	Business Considerations for Expanding Your Operation Maxwell 107 Bob Binnie	Alternative Hive Designs: Pros & Cons Maxwell 109 Nathan Beach
11:15		The Role of Pesticides in Bee Health Rollins Suber Jeff Pettis	Urban Beekeeping Rollins Hatcher Cindy Hodges	Building Hive Equipment Maxwell 108 Lonnie Funderburg	Spring Management Behind Maxwell Slade Jarrett	Basic Honey Processing Maxwell 117 Bill Owens	Vital Signs: Minimal-Invasive Hive Inspection Maxwell Planetarium Tom Rearick	How to Win a Honey Show Rollins Welsh Judging Room Robert Brewer
12:00		GROUP PHOTO - IN FRONT OF ROLLINS BUILDING Say "Cheese!" Please join us outside the Rollins Center for our annual Institute photo!						
12:15		LUNCH - ROLLINS CAFETERIA Advance tickets for lunch will be sold in the Maxwell lobby by a representative from the Young Harris dining facility.						

FRIDAY | CONTINUED

<p>1:15</p>	<p>The Role of Pesticides in Bee Health Rollins Suber Jeff Pettis</p>	<p>Propolis: Its Uses for Bees & Humans Rollins Hatcher Cindy Hodges</p>	<p>Cell-Punch Method of Queen Rearing Maxwell 109 Wil Montgomery</p>	<p>How to NOT Kill Yourself Applying Oxalic Acid Maxwell Planetarium Jim Tew</p>	<p>CERTIFIED WRITTEN EXAM Student Org. Loft - Rollins Top Floor</p>	<p>Death by Varroa Maxwell 116 Slade Jarrett</p>	<p>How to Win a Honey Show Rollins Welsh Judging Room Robert Brewer</p>	<p>Effective Varroa Mgmt Through IPM Maxwell 106 Lance Wilson</p>
<p>2:15</p>	<p>The Genetics of Grooming Behavior Rollins Suber Jennifer Tsuruda</p>	<p>Teaching Kids About Bees & Pollinators Rollins Hatcher Kim Bailey</p>	<p>Cell-Punch Method of Queen Rearing Maxwell 109 Wil Montgomery</p>	<p>How to NOT Kill Yourself Applying Oxalic Acid Maxwell Planetarium Jim Tew</p>	<p>Bee Removal From Buildings Maxwell 117 Nicholas Weaver</p>	<p>Death by Varroa Maxwell 116 Slade Jarrett</p>	<p>Mead Making Maxwell 108 Tom Hill</p>	<p>Effective Varroa Mgmt Through IPM Maxwell 106 Lance Wilson</p>
<p>3:15</p>	<p>Pollination: the Interaction Between Flower & Bee Rollins Suber John Skinner</p>	<p>Teaching Kids About Bees & Pollinators Rollins Hatcher Kim Bailey</p>	<p>Cell-Punch Method of Queen Rearing Maxwell 109 Wil Montgomery</p>	<p>Honey: the Inside Story Maxwell Planetarium Bear Kelley</p>	<p>Bee Removal From Buildings Maxwell 117 Bill Owens</p>	<p>Senses of the Honey Bee Maxwell 107 Tom Rearick</p>	<p>Mead Making Maxwell 108 Tom Hill</p>	<p>Murphy's Law of Beekeeping Maxwell 106 Will Dix</p>
<p>4:15</p>	<p>THE NATURAL NEST IN THE UNNATURAL APIARY ROLLINS SUBER BANQUET HALL - <i>Jim Tew</i></p>							
<p>5:15</p>	<p>ICE CREAM SOCIAL - CHAPEL GAZEBO At this event, we will present the new Certified beekeepers and Honey Show awards.</p>							



SATURDAY | MAY 21, 2016

Today's lectures are open to everyone. All exams are finished!

IMPORTANT NOTES:

- Registration is open from 7 AM until Noon today.
- Course descriptions can be found in the back of this program.

8:00	WELCOME AND OPENING DETAILS ROLLINS SUBER BANQUET HALL - <i>Keith Delaplane</i>
8:15	PESTICIDES, POLLINATORS AND PEOPLE ROLLINS SUBER BANQUET HALL - <i>Jennifer Tsuruda</i>
9:15	BEEKEEPING AROUND THE WORLD & THE THREAT OF NEW PESTS ROLLINS SUBER BANQUET HALL - <i>Jeff Pettis</i>
10:15	TEN RULES OF MODERN BEEKEEPING ROLLINS SUBER BANQUET HALL - <i>Kim Flottum</i>
11:15	EVOLUTIONARY BEEKEEPING ROLLINS SUBER BANQUET HALL - <i>Keith Delaplane</i>
12:00	ADJOURN <i>Safe travels, and we will see you in our 26th year!</i>

COURSE EVALUATIONS

This year, we have **digital Course Evaluations!** Please take the time to fill these out, as they help us determine the most useful topics and presenters to invite or bring back for our next Institute. Please check your email - Tabitha will be sending out the link to digital course evaluations during the conference. If you haven't already, make sure to add Tabitha's email address, ugabees@gmail.com, to your safe-senders list!

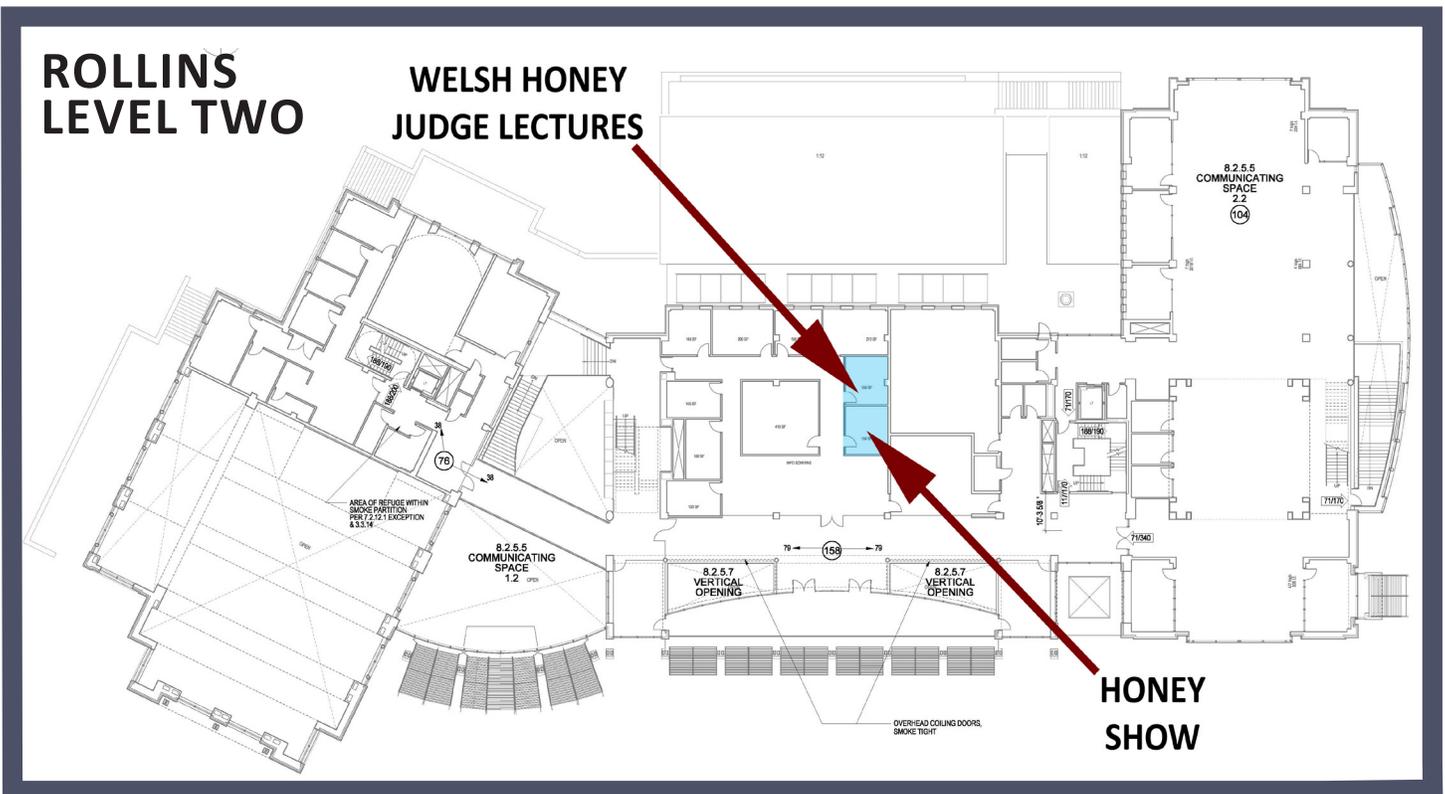
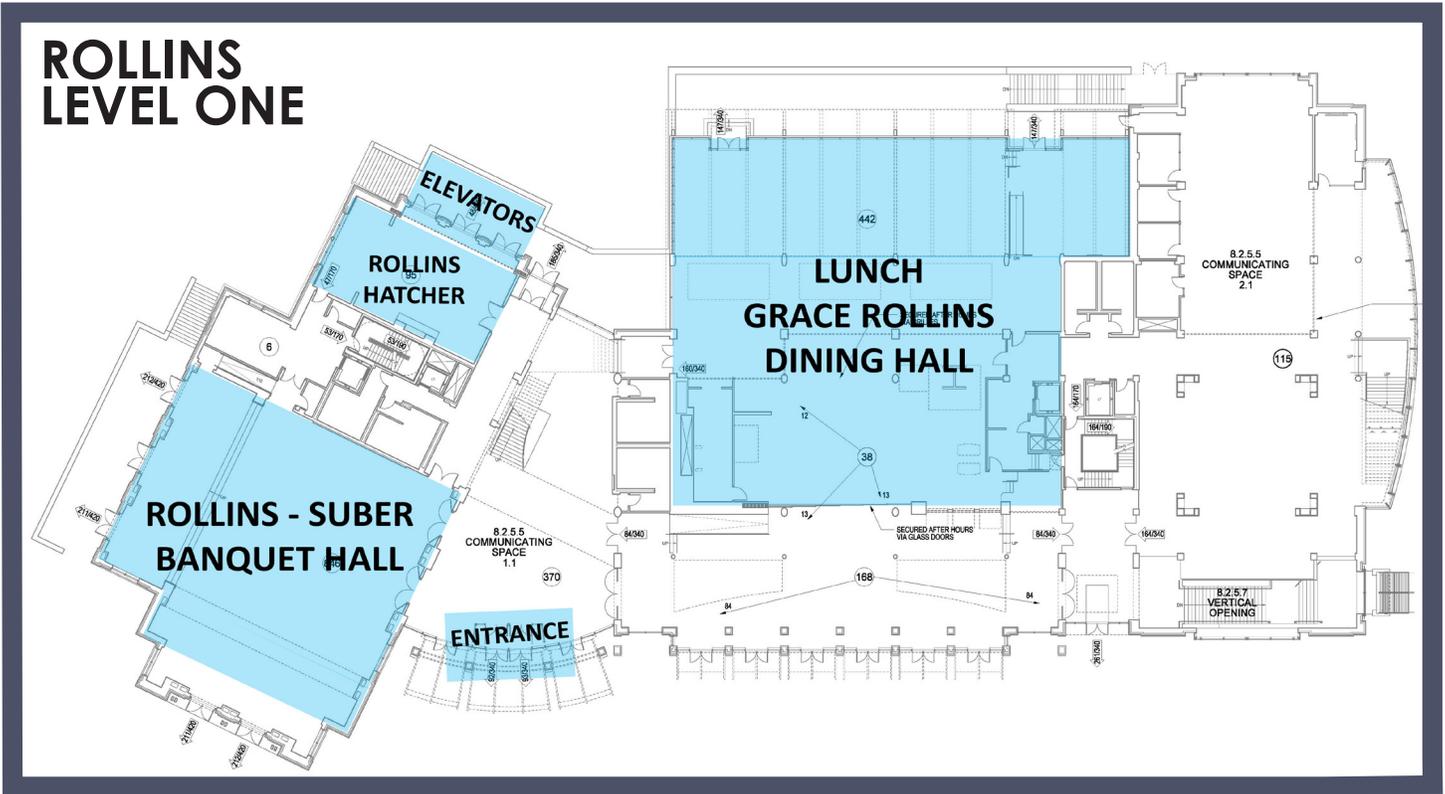
FIND US ON FACEBOOK!



For up-to-date info and photos from this year's conference, and for interesting opportunities and information throughout the year, make sure to follow us on Facebook! Just navigate to [Facebook.com/UGAHoneyBeeLab](https://www.facebook.com/UGAHoneyBeeLab).

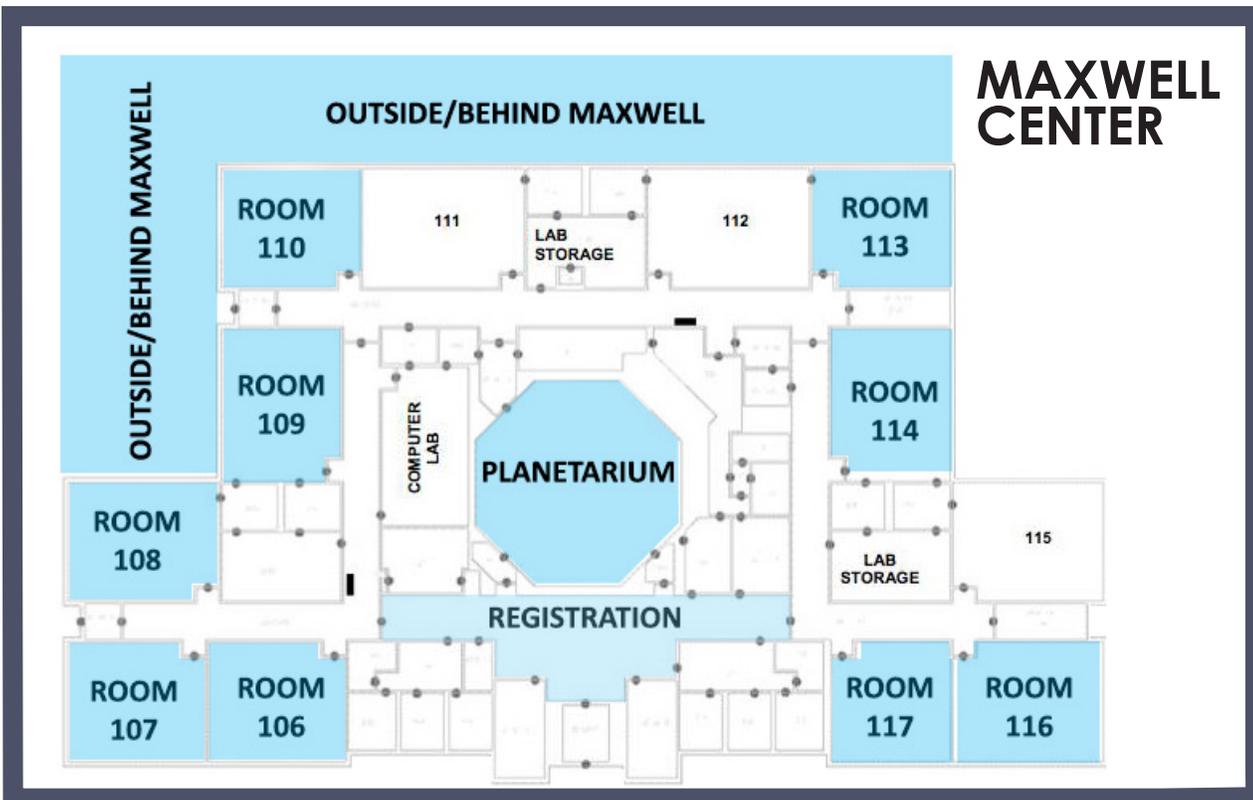
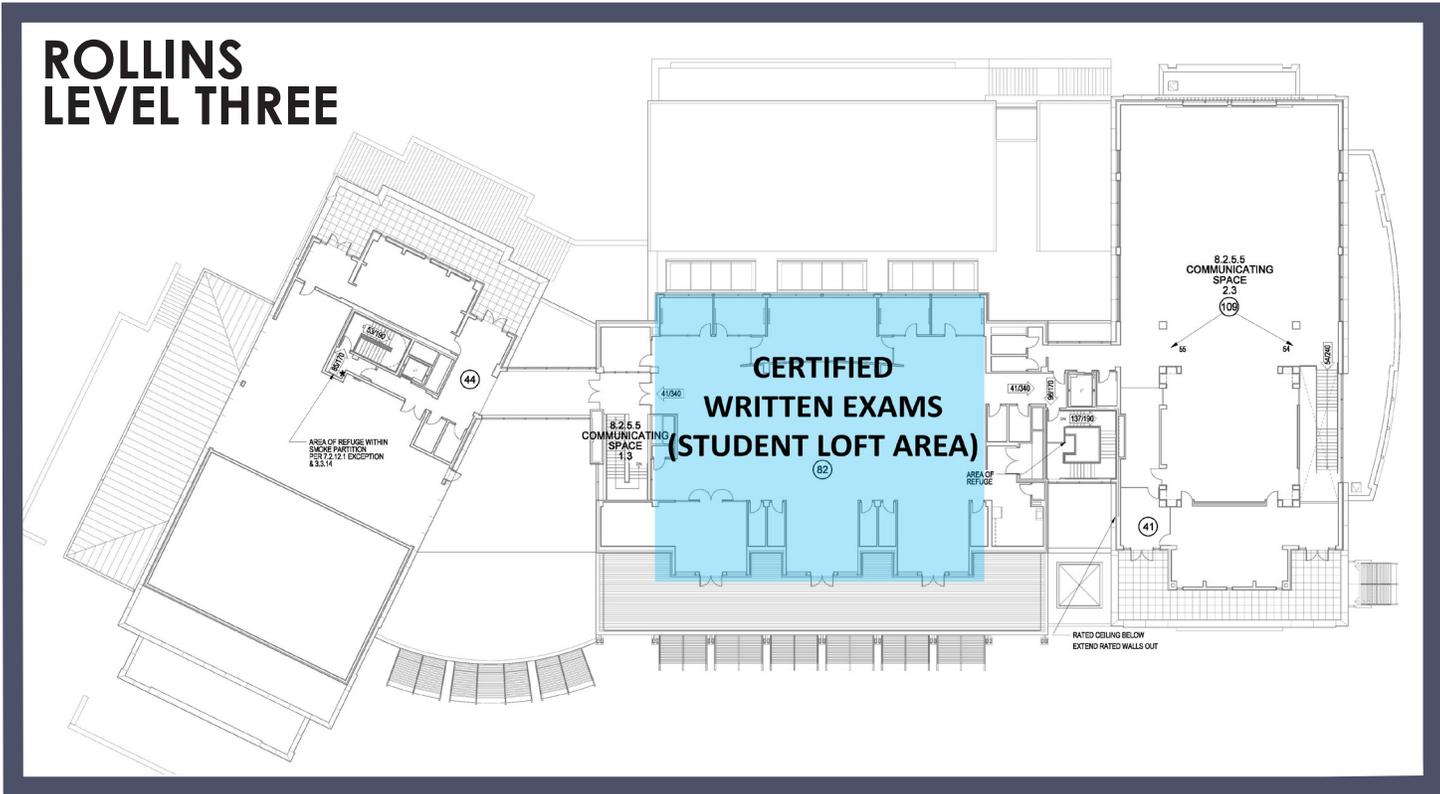
INSTITUTE MAPS

Please note that there should be an electronic directional sign in the downstairs lobby of the Rollins Center in the event that you cannot find the classroom you are looking for.



INSTITUTE MAPS

 = classrooms used during the institute



COURSE DESCRIPTIONS

THURSDAY

DESCRIPTIONS ARE LISTED IN ORDER OF SCHEDULED PRESENTATION TIME.

- **WHAT SUCCESSFUL BEEKEEPERS DO ABOUT LOSSES**
The BIP surveys give clues about what's really working to keep bees alive.
- **THE IRRATIONAL ROBBING BEHAVIOR OF HONEY BEES**
Robbing is a form of cannibalism. Does it make sense? How can we prevent it better?
- **GETTING STARTED: THE PRINCIPLES**
Theoretic background behind colony start-up
- **BIOLOGY OF INDIVIDUALS**
Development and behavior of workers, drones, and queens
- **BIOLOGY OF THE COLONY**
Seasonal life history of the honey bee colony as a superorganism
- **OFF-SEASON MANAGEMENT**
How to manage colonies for optimum survival through late summer, autumn, and winter
- **HIVE EQUIPMENT FOR THE COMMERCIAL BEEKEEPER**
A workshop focusing on the unique needs of the enlarging beekeeping business
- **TREASURES FROM THE HIVE I**
A hands-on work shop. Learn to infuse oils and make your own salves with wax from your hive.
- **HONEY PLANTS OF THE SOUTHEAST**
A survey of the distribution and seasonality of the region's honey plants
- **CREATING POLLINATOR GARDENS**
A succession of bloom is important to increase wild bees in your area.
- **HONEY BEE NUTRITION**
It's not just sugar syrup. Check out the full-orbed nutrient needs of our bees.
- **MASTER LUNCHEON - INVITATION ONLY: HAVE WE MOVED BEYOND THE MOVABLE FRAME?**
Is there a compelling reason for the Langstroth hive? Or is it just an accident of history?
- **THE ALMOND ODYSSEY AND HOW IT AFFECTS YOU**
Almonds are the tail that wags the bee industry dog. Learn the far-reaching effects of this annual event.
- **PARASITES**
A survey of the parasites affecting bees with an emphasis on Varroa
- **PATHOGENS**
A survey of the most important diseases the beekeeper is likely to encounter
- **GETTING STARTED: THE REAL THING**
Taking the principles of beginning beekeeping and applying them in the field
- **HONEY: THE INSIDE STORY**
The ins and outs of honey's unique physical and chemical properties
- **PRACTICAL STOCK IMPROVEMENT FOR THE HOBBY BEEKEEPER**
Things any beekeeper can do to encourage genetic improvements in our bees
- **NEONICS IN THE SOUTHEAST**
These systemic pesticides are implicated as contributors to bee decline.
- **TEN MISTAKES NEW BEEKEEPERS MAKE**
Things they may not tell you in the beginners' books
- **TREASURES FROM THE HIVE II**
A hands-on workshop. Learn to make lip balm with the wax from your hive.
- **HONEY BEE COGNITION**
Collective group decision making and the workers that make it happen
- **REPRODUCTIVE PHYSIOLOGY**
The queen's egg output is a secret to beekeeping success

COURSE DESCRIPTIONS

FRIDAY

DESCRIPTIONS ARE LISTED IN ORDER OF SCHEDULED PRESENTATION TIME.

- **WHY ARE QUEENS FAILING?**
Once we could get 2 years out of a queen; today we're lucky if it's 6 months. Come hear some of the reasons why.
- **HONEY BEE ANATOMY**
It adds to a beekeeper's wonder to see these creatures up close and personal
- **SAFETY & BIOMECHANICS IN THE APIARY**
The right way and wrong way to handle hives and equipment
- **BUILDING HIVE EQUIPMENT**
A popular workshop on the construction of hive equipment
- **SPRING MANAGEMENT**
Swarm prevention, colony buildup, supering for the honey flow
- **BASIC HONEY PROCESSING**
How to take it from the comb to the bottle
- **BUSINESS CONSIDERATIONS FOR EXPANDING YOUR OPERATION**
A look at the financial and management changes of a transitioning bee business
- **ALTERNATIVE HIVE DESIGNS: PROS & CONS**
There's a lot of innovation going on. Check out a list and a review in this class.
- **BREEDING FOR VARROA RESISTANCE**
A primer on the best-known mite genetic resistance traits
- **THE ROLE OF PESTICIDES IN BEE HEALTH**
Pesticides are one of many contributors to bee health problems today. Come hear a scientist's appraisal of their relative importance in the big picture.
- **URBAN BEEKEEPING**
Learn about the special considerations of having bees in the city.
- **VITAL SIGNS: MINIMAL-INVASIVE HIVE INSPECTION**
You can tell a lot by simply watching – along with gentle inspections.
- **HOW TO WIN A HONEY SHOW**
How to get that winning edge in competitive honey shows
- **PROPOLIS: ITS USES FOR BEES AND HUMANS**
Tree resins play an important role in honey bee health. How can beekeepers exploit this for good health – the bees' and their own?
- **CELL-PUNCH METHOD FOR QUEEN REARING**
A popular repeat workshop on a grafting-free method to produce queen cells
- **HOW TO NOT KILL YOURSELF APPLYING OXALIC ACID**
OK, an overstatement maybe – but OA can still cause a beekeeper serious injury if not applied correctly
- **DEATH BY VARROA**
A seasoned beekeeper's experiences of controlling this serious pest
- **EFFECTIVE VARROA MANAGEMENT THROUGH IPM**
Using all resources available to keep mites below damaging levels
- **THE GENETICS OF GROOMING BEHAVIOR**
Some bees can detect, bite, and remove Varroa mites from themselves or each other. Come learn the genetic basis behind this promising behavior.
- **TEACHING KIDS ABOUT BEES AND POLLINATORS**
Helping the next generation have an appreciation of the interconnectedness of the natural world – especially with pollinators
- **BEE REMOVAL FROM BUILDINGS**
Bee removal can be a good revenue stream – but it can be disastrous if not done right.
- **MEAD MAKING**
Some call it the most ancient of alcoholic beverages; come learn the most modern methods of making – and enjoying – this alternative hive product.

Continued on the next page...

COURSE DESCRIPTIONS

FRIDAY, CONTINUED

DESCRIPTIONS ARE LISTED IN ORDER OF SCHEDULED PRESENTATION TIME.

- **POLLINATION: INTERACTION BETWEEN FLOWER AND BEE**
Bees and pollination are one of the best-known examples of co-evolution. Come learn what this ancient relationship looks like today.
- **HONEY: THE INSIDE STORY**
The ins and outs of honey's unique physical and chemical properties
- **SENSES OF THE HONEY BEE**
Worker bees are rich in sensory perception.
- **MURPHY'S LAW OF BEEKEEPING**
When it comes to things that can go wrong – well, beekeeping is full of them. Come learn how you might avoid some of Murphy's prognostics.
- **THE NATURAL NEST IN THE UNNATURAL APIARY**
Is the honey bee a wild animal or domestic? Whatever the answer, a beekeeper often plays the dual role of farmer and naturalist.

SATURDAY

- **PESTICIDES, POLLINATORS AND PEOPLE**
- **BEEKEEPING AROUND THE WORLD AND THE THREAT OF NEW PESTS**
- **TEN RULES OF MODERN BEEKEEPING**
- **EVOLUTIONARY BEEKEEPING**

PLEASE DON'T FORGET TO FILL OUT YOUR COURSE EVALUATIONS!

THANKS FOR JOINING US!

On behalf of the speakers and staff, thank you all so much for joining us for the 25th Anniversary of the University of Georgia and Young Harris College Beekeeping Institute! We look forward to seeing you again next year!

NOTES



Young
Harris
COLLEGE



EST. 1886

