

YOUNG HARRIS COLLEGE UNIVERSITY OF GEORGIA

Beekeeping Institute 2018

MAY 9-11

ABOUT THE INSTITUTE

This marks the 27th year of a partnership between Young Harris College and the University of Georgia Honey Bee Program to provide you the most comprehensive beekeeping educational event in the Southeast. It is our goal to bring to you the best beekeeping scientists and educators in the English-speaking world.

It is also our goal to create an educational event that meets the needs of everyone, whether you're an experienced beekeeper or complete beginner. 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 in this booklet.

The Institute proper, which takes place Thursday and Friday, consists of lectures and workshops covering a vast range of beekeeping topics. Wednesday, May 9 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 and Friday, and classes recommended for Certified candidates are highlighted in blue. Classes are held in the Maxwell Science Center and state of the art 121,000 square ft. Rollins Campus Center.

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'. Cash prizes will be awarded to the first place winners in each class. You can find the Honey Show rules in this booklet and on our website.



Thanks for joining us as we celebrate 27 years!



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YOUNG HARRIS COLLEGE UNIVERSITY OF GEORGIA

Beekeeping Institute



THANKS FOR JOINING US!

On behalf of the speakers and staff, thank you all so much for joining us for the 27th University of Georgia and Young Harris College Beekeeping Institute!

MEET OUR GUEST SPEAKERS



Lewis Barlett



Dr. Reed M. Johnson



Jan Lohman



Dr. Geoff Williams



Michael Young

Lewis Bartlett

Hailing from Britain, Lewis is an infectious disease biologist and honey bee scientist. He is a PhD student at University of California Berkeley and working with Emory University, University of Georgia, and University of Exeter (UK), to better understand how honey bee diseases might be evolving in response to Varroa, migratory beekeeping operations and common beekeeping practices. Lewis uses mathematical models to make predictions about how bee diseases should behave which, with the aid of the UGA bee lab, are then matched against what we see in experimental hives.



Dr. Reed M. Johnson

Reed got his start in research beekeeping while looking for a summer job in his hometown, Missoula, Montana. He knocked on the door of Dr. Jerry Bromenshenk at the University of Montana, was offered employment, and was quickly drawn into the world of bees and their biology. Reed went on to receive a Ph.D. in Entomology working with Dr. May Berenbaum from the University of Illinois at Urbana-Champaign where he was involved in the honey bee genome project. Then he was a post-doc at the University of Nebraska with Dr. Marion Ellis where he explored drug interactions between miticides in bees. Reed is currently an Assistant Professor in the Department of Entomology at The Ohio State University, Ohio Agricultural Research and Development Center in Wooster, Ohio. He teaches two courses at Ohio State: one on the biology and practical aspects of beekeeping and another on pesticide toxicology and application. His research focuses on determining how bees are exposed to pesticides and combinations and measuring the effect that toxic exposure has on the health of honey bees and other pollinators with the goal of promoting bee health in the context of modern agriculture.

Jan Lohman

Jan Lohman comes to Georgia from Hermiston, Oregon. She and her partner, Vincent Vazza have been commercial beekeeper for 26 years, living the migratory beekeeper's life, moving business, bees and equipment from Eastern Oregon to North Central California each year for almond pollination (late January–March), then back to Eastern Oregon for cherry and pear pollination (April) and finally home to requeen the bees and move into melon pollination. She was President of the Oregon State Beekeepers Association for three years, Secretary for three years and regional representative for ten years and is currently again Secretary for 2018. She was a founding member of the Oregon Master Beekeeper Program that is now in its 7th year, has been on the organizing committee since its inception and is an instructor and mentor for the program in Eastern Oregon. Jan was selected as the ESP National Extension Volunteer of the year in 2017. She recently retired and is loving hobby beekeeping and spending more time with family.

Dr. Geoff Williams

A native of Canada, Geoff experienced his first bee sting at the ripe age of 23. He has been hooked ever since. His graduate studies at Canada's Dalhousie University improved our understanding of the fungal parasite Nosema *ceranae*, and his post-doc work at Switzerland's University of Bern and Agroscope was the first to discern the potential damaging effects of neonicotinoids on honey bee reproduction. Now an Assistant Professor in the Department of Insect Pollination and Apiculture at Auburn University, Geoff represents the College of Agriculture's first faculty member that specializes in bee health. In addition to typical research and teaching duties, Geoff is an enthusiastic member of the honey bee research consortium COLOSS (http://www.coloss. org), acting both as an Executive Committee member and Vice President. He is also an Editorial Board Member of Scientific Reports and an Adjunct Professor at Chiang Mai University, Thailand.

Michael Young

Michael lives in a Georgian Royal Village in Hillsborough, Northern Ireland. A Georgia Master Beekeeper and keeper of bees for over 30 years, he is also chef at the Belfast Hilton. In the year 2000, Michael founded the Institute of Northern Ireland Beekeepers modeled on the Young Harris Beekeeping Institute after his first visit to Young Harris and the States in 1999. A Senior Honey Judge and expert showman in exhibiting beekeeping products across the world, he has collected over 800 prize cards for his wares. He is skilled in many areas of apiculture including beeswax encaustic painting and mead making. A lover of nature, gardening and photography, he also has a passion for orchids and painting in oils and watercolors. In 2008 Michael was awarded the title of Member of the British Empire, MBE, for his services to apiculture and conservation. Michael was invited as a Beekeeper Advisor to the Obama White House.

Beekeeping Institute 2018

MEET OUR STAFF & INSTRUCTORS



Dr. Paul Arnold Institute Co-Founder Professor, Young Harris College



Mary Cahill-Roberts Georgia Master Beekeeper Pediatric Nurse Practitioner Welsh Senior Honey Judge



Arthur "Brutz" English Presiding Georgia Senior Judge, Welsh Honey Judge Program



Jack Garrison UGA Bee Lab Technician



Jennifer Berry UGA Bee Lab Apicultural Research Manager Honey Pond Bee Farm



Dr. Keith Delaplane Institute Co-Founder Professor, University of Georgia



Keith Fielder Putnam County Extension Director Georgia Master Beekeeper



Cindy Hodges Past President of Metro Atlanta Beekeepers Georgia Master Craftsman Beekeeper



Bob Binnie Blue Ridge Honey Company Lakemont, Georgia



Dr. Will Dix Emergency Physician ACEP Fellow



Christine Fortuin PhD student, Warnell (UGA) School of Forestry



Slade Jarrett Jarrett Apiaries Baldwin, Georgia



Robert Brewer Insitute Co-Founder Retired Towns County Extension



Cristina Echezarreta UGA Bee Lab volunteer MFA student at UGA Lamar Dodd School of Art



Lonnie Funderburg *Two-Term President Alabama Beekeepers Association*



Bear Kelley Past-president GBA, Senior Welsh Honey Judge, Georgia Prison Beekeeping Program Founder, Institute Registrar



Marybeth Kelley Institute Registrar



Avry Pribadi UGA Bee lab staff and MS graduate student



Dan Long Georgia Journeyman Beekeeper Tallassee Highlands Apiary Athens, Georgia



Damon Wallace Georgia Master Beekeeper Two-term President, Alabama Beekeepers Association



Will Montgomery Georgia Master Beekeeper



Nicholas Weaver UGA Bee Lab Apiary Manager, Senior Welsh Honey Judge



Julia Mahood President, Metro Atlanta Association, Georgia Master Beekeeper



Broadus Williams *Certified Georgia Beekeeper*



Lance Wilson Georgia Master Craftsman Beekeeper



GEORGIA MASTER BEEKEEPER PROGRAM

CERTIFICATION LEVELS:

- Certified
- Journeyman

WHERE TO FIND REQUIREMENTS:

http://www.caes.uga.edu/departments/entomology/ research/honey-bee-program/georgia-master-beekeeperprogram.html

Master Craftsman

• Master

QUESTIONS/COMMENTS: Dr. Keith Delaplane at ksd@uga.edu

In 2018, the Georgia Master Beekeeper Program (GMBP) is offering qualifications at the Certified, Journeyman, and 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.

The certified practical exam will also be available Wednesday if you wish to leave more time for classes on Thursday and Friday. The certified level requires one year's prior beekeeping experience, passing a written exam, and passing a two-part practical exam (inside and outside).

If you are sitting for exams at the Journeyman level or higher, you need to attend the sessions on Wednesday.

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 http://www.caes.uga.edu/departments/ entomology/research/honey-bee-program/georgiamaster-beekeeper-program.html). Applicants at the Certified level must have had at least one year's beekeeping experience prior to the Institute and will be asked to sign an affidavit to that effect.

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. Recommended reading includes Keith Delaplane's 2007 edition of *First Lessons in Beekeeping*; Mark Winston's *Biology of the Honey Bee*; Thomas Seeley's *Honeybee Democracy*; and the 2015 edition of *The Hive and the Honey Bee*.

IMPORTANT NOTES

- Wednesday's emphasis is on lectures and exams for Journeyman, Master, Master Craftsman and Welsh Honey Judge candidates. The certified practical exam will be optionally available for those who want to save time on Thursday and Friday. Only those who have registered for one of these exams and have paid the appropriate fees may attend the Wednesday lectures, audits and exams.
- Certified practical exams are offered by appointment Wednesday from 1-4 p.m., all day on Thursday, and Friday morning. There are THREE parts to the exams: inside practical, outside practical (both by appointment), and a written exam on Friday from 1:15-2:05 p.m.

WEDNESDAY | MAY 9, 2018

8:00- 10:00 a.m.	JOURNEYMAN SCHEDULE Maxwell 116 8:00 a.m. Parasites Jennifer Berry 8:45 a.m. Toxicology Geoff Williams 9:30 a.m. General review time Keith Delaplane	MASTER SCHEDULE Maxwell 117 8:00 a.m. General rev <i>Keith Delap</i> 8:45 a.m. Toxicology <i>Reed Johns</i> 9:30 a.m. State of the <i>Jennifer Be</i>	olane con e art Varroa control	TRAINING Rollins le Arthur "Br Nicholas V	WELSH HONEY JUDGE TRAINING LEVELS I AND II Rollins level 2 Arthur "Brutz" English Nicholas Weaver Michael Young			
10:15 a.m.	DKLAN							
10:30 a.m. -noon	JOURNEYMAN SCHEDULE Maxwell 116 10:30 a.m. General review time <i>Keith Delaplane</i>	MASTER SCHEDULE Maxwell 117 10:30 a.m. Pollination human ec <i>Paul Arno</i> 11:15 a.m. Non-Apis their cons <i>Christine</i>	onomics Id bees and ervation	TRAINING Rollins le Arthur "Br Nicholas V	WELSH HONEY JUDGE TRAINING LEVELS I AND II Rollins level 2 Arthur "Brutz" English Nicholas Weaver Michael Young			
Noon	LUNCH							
1:00- 2:00 p.m.	JOURNEYMAN PRACTICAL EXAMINATIONS Maxwell 109 Will Dix Jack Garrison	CERTIFIED PRACTICAL EXAMS available by appointment* Maxwell 113, 114 Staff * Schedule your exam time at the registration desk. Certified candidates must sit for two exams: a practical (two-part) and written. The written exam is Friday at 1:15 p.m.		MASTER AND MASTER CRAFTSMAN AUDITS Maxwell 116 Paul Arnold Keith Delaplane		WELSH HONEY JUDGE TRAINING LEVELS I AND II Rollins level 2 Arthur "Brutz" English Nicholas Weaver Michael Young		
3:00- 4:00 p.m.	JOURNEYMAN AUDITS Maxwell 106 Cindy Hodges Jennifer Berry							
4:00 - 5:00 p.m.	JOURNEYMAN AND MASTER WRITTEN EXAMINATIONS Maxwell 117 Jack Garrison							
Color Ke	y							
J	ourneyman activities		Certified Practical Exams			Journeyman & Master activities		
N	laster activities		Welsh Honey Judge activities					

WELSH HONEY JUDGE PROGRAM

CERTIFICATION LEVELS:

- Level I (Candidate)
- Level II (Judge)
- Level III (Senior Judge)

WHERE TO FIND REQUIREMENTS:

www.caes.uga.edu/departments/entomology/research/ honey-bee-program/yhc-uga-beekeeping-institute/ welsh-honey-judge-licensing.html

QUESTIONS/COMMENTS:

brutzenglish@gmail.com



The Welsh Bee Keepers Association (UK) partnered with the YHC-UGA Beekeeping Institute beginning 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 the United Kingdom and has since expanded into a sister program at 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 at http://www.caes.uga.edu/departments/ entomology/research/honey-bee-program/yhcuga-beekeeping-institute/welsh-honey-judgelicensing.html. 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 Brutz English.



2018 BEEKEEPING INSTITUTE HONEY SHOW

CHAIRPERSON:

Nicholas Weaver 678-779-8143 • keepbeesinforsyth@gmail.com

ENTRY FEE: Included in registration

ARRIVAL TIME: Thursday, May 10, 2018 Between 8 a.m. and noon

LOCATION: Rollins Campus Center, Second floor, Room 116

GENERAL RULES OF THE HONEY SHOW

- 1. The 2018 Beekeeping Institute honey show is open to any attendee who wishes to enter one or more exhibits, except as otherwise specifically provided for herein. The competition is not open to individuals serving as judges, stewards, or show secretaries, nor to the spouses, children, parents, or siblings of said individuals.
- 2. Entries must be received between 8:00 a.m. and noon on May 10, 2018, at Room 116 on the second floor of the Rollins Campus Center at Young Harris College in Young Harris, GA. No entries will be accepted after this deadline.
- 3. Each Exhibitor must sign an affidavit stating that each entry he or she submits was produced by the Exhibitor in conformity with the rules set forth herein.
- 4. Each Exhibitor may make only one entry per class. Duplication (same product) of entries by families is also prohibited.
- 5. All exhibits must be produced by the exhibitor within the last calendar year with the exception of meads, artworks, poetry, crafts, needlecrafts, gadgets, and photography. Any exhibit previously submitted for consideration in any prior Institute honey show, with the exception of mead, is not eligible for this competition.
- 6. In instances where the exhibit may qualify for consideration in multiple classes, the exhibitor shall have the final decision as to which class to enter the exhibit. This selection will not be overturned by the judge(s). Said exhibit will be judged based on the criteria set forth in the selected class.

JUDGING:

May 10, 2018, beginning at noon

RELEASE TIME:

All entries will remain in the show area for public viewing after the judging. All entries will remain on display until noon Friday, May 11. Exhibitors may pick up their entries on Friday, May 11 between noon and 1 p.m.

JUDGES AND SECRETARY:

Arthur "Brutz" English

- 7. Once exhibits have been accepted into the competition by the Show Secretary, they may not be altered in any way.
- 8. After submitting entries to the Show Secretary, exhibitors may not enter the area where the exhibits have been placed.
- 9. The Secretary, Stewards or Judges are the only persons who may enter the honey judging area.
- 10. Judges will enter the honey show area after the close of exhibitor acceptance. This is to ensure as close to a blind judging as possible.
- 11. Copyright of any submitted recipe, artwork, literary work, or other media remains with the exhibitor, but the Institute has the unrestricted right to publish images of submitted recipe, artwork, literary work, or other media in its newsletter, on its website, and via its social media outlets, plus unrestricted rights to use the same in any related material for PR purposes.
- 12. Allowances will be made for minor damage to cappings in entries in the comb honey categories, where such minor damage is clearly the result of previous judging in another show.
- 13. Exhibits and other items not retrieved by the deadline posted for pick-up, shall be deemed abandoned, and shall be donated to the Honey Show Committee for future use or disposal. The YHBI is not responsible for any items left after the pick-up deadline.

2018 BEEKEEPING INSTITUTE HONEY SHOW

THE FOLLOWING CATEGORIES WILL BE ACCEPTED AND JUDGED AT THE HONEY SHOW:

Class 1: Extracted Honey a. Light b. Amber c. Dark Class 2: Creamed Honey Class 3: Chunk Comb Honey Class 4: Cut Comb Honey Class 5: Section Comb honey Class 6: Full Frame Class 7: Novice **Class 8: Commercial** Class 9: Black jar Class 10: Beeswax Block Class 11: Beeswax Candles a. Dipped Tapers b. Molded Tapers Class 12: Molded Ornamental Beeswax Candles Class 13: Meads a. Sweet Meads b. Dry Meads Class 14: Braggot (Beer and Ale made with honey) **Class 15: Honey Beverages** a. Alcoholic b. Non-alcoholic Class 16: Honey Cake (traditional) Class 17: Honey Cake (open recipe) Class 18: Honey Breads **Class 19: Honey Confections** Class 20: Artwork Related to Beekeeping **Class 21: Poetry Related to Beekeeping** Class 22: Crafts Related to Beekeeping Class 23: Needlecraft Related to Beekeeping Class 24: Notions, Potions, and Lotions **Class 25: Beekeeping Gadgets** Class 26: Photographs Related to Beekeeping Class 27: Electronic Media Related to Beekeeping

PRIZES AND AWARDS

It is the intention that ribbons will be given in all classes even if there is only one entry in the class. However, in order to receive an award that entry must be worthy of placement. Entry into a class does not guarantee an award. The decisions of the judges are final. After the announcement of awards, any exhibitor may meet with the class judge to discuss their entry and ask questions. The show administrator will appoint a Referee who shall have final say in any matter pertaining to the contest if called upon. Exhibitors found willfully cheating, or purposefully altering or disfiguring an entry for the purpose of influencing the validity of judging will be disqualified from the contest, as well as from any future honey shows sponsored by the Institute for a period of not less than three (3) years.

Cash and ribbons will be awarded to Best in Show and First place winners in each class. Ribbons will be awarded Second and Third place winners in each class. Prize cards with point values for participants in the Welsh Honey Judging Program will be awarded as follows:

> Best in Show = 6 points First Place = 6 points Second Place = 5 points Third Place = 4 points Very Highly Commendable = 3 points Highly Commendable = 2 points Commendable = 1 point

RULES FOR INDIVIDUAL CLASSES

CLASS 1: EXTRACTED HONEY

Extracted honey is judged in three classes: (a) light, (b) medium, and (c) dark. Entrants may submit one entry in each of these three classes. One entry of extracted honey is defined as two (2) one-pound jars. All forms of extracted honey are to be presented in one-pound queen line glass or plastic jars without tamper proof seals. Closures may be of metal or plastic. There shall be no labels on the jars. Judges evaluate entries on the following: Cleanliness of the jar and lid; Correct fill level; Uniformity of the two jars that comprise the entry; Cleanliness and clarity of the honey; Moisture content (only if needed); and aroma and flavor (for off aromas and or flavors).

CLASS 2: CREAMED HONEY

An entry of creamed honey is two (2) wide mouth jars. Creamed honey must be displayed in clear straight-sided glass jars with one-piece lids. Judges evaluate entries on the following: fineness of crystals, uniformity and firmness of product, cleanliness and freedom from foam or from added flavors, striation or colors.

CLASS 3: CHUNK COMB HONEY

One entry of chunk honey is defined as two (2) one-pound jars. Chunk honey must be displayed in straight sided, glass, wide mouth, jars. The glass should not be embossed. Such jars are available from many commercial beekeeping suppliers. Only one chunk of comb should be in each jar for competition. Judges evaluate entries on the following criteria: The chunk of comb must be in one piece, with a straight mid rib and of uniform thickness. The cuts should be clean and uniform. The chunk comb should be cut and sized to appropriately fit the container. The honey should fill the rest of the jar to the appropriate fill line. The comb should be oriented in the container as found naturally in the hive. Comb with watery cappings should be avoided. The comb should extend the length of the jar. The chunk of comb should account for at least fifty percent (50%) of the internal volume of the jar. Comb is judged for equal amounts on either side of the center rib. The extracted portion of the entry will be judged by criteria explained for Class 1.

CLASS 4: CUT COMB

An entry of cut comb honey is two (2) boxes. The boxes must be transparent on all sides made for displaying cut comb. Each section should weigh a minimum of 12 ounces. The chunk of comb must be in one piece, with a straight mid rib and of uniform thickness. Comb with watery cappings should be avoided. The cuts should be clean and uniform. There should be no leaking of honey from comb into the box. Judges evaluate entries on the following: Uniformity of appearance and color (including the honey in the comb), cleanliness, absence of uncapped cells, no "wet" cell appearance, freedom from granulation, pollen, and brood. Weight should be uniform for each section. Total weight of the entire entry (2 sections) may be used as a tiebreaker.

CLASS 5: SECTION COMB HONEY

An entry of section comb honey is two (2) sections. Ross rounds and square section entries must be displayed in the original square or circular section. Sections must be in clear plastic boxes made for the display of their respective style of section comb honey. Each section should weigh a minimum of 12 ounces. Judges evaluate entries on the following: Uniformity of appearance and color (including the honey in the comb), cleanliness, absence of uncapped or leaking cells, no "wet" cell appearance, freedom from granulation and pollen, and uniform weight of each section. Total weight of the entire entry (2 sections) may be used as a tiebreaker.

CLASS 6: FULL FRAME

An entry of full frame comb honey is one (1) frame of capped honey. Frames suitable for extraction must be shown in protective casing without lacing or edging and both sides of the comb should be visible. Frames must be 100% capped. Judging: Full frame comb honev entries are not judged for flavor unless fermentation is apparent. Judging criteria are uniformity of appearance and color (including the honey in the comb), cleanliness, absence of uncapped or leaking cells, no "wet" cell appearance, freedom from granulation and pollen, and symmetry throughout the frame. Total weight of the entire entry may be used as a tiebreaker.

CLASS 7: NOVICE

An entry consists of one (1) one-pound jar of extracted honey. Judging criteria is the same as that for extracted honey. This class is only open only to exhibitors who have never won first prize in any honey category at any prior honey show.

CLASS 8: COMMERCIAL

An entry consists of six (6) identical jars. The six-jar commercial class includes exhibitors' own labels. Labels should be legal within the laws of Georgia; only one I.D. label is required per entry (six jars). Tamper-proof seals are allowable. Judging: Criteria are cleanliness of the jar and lid. Correct fill level; uniformity of the six jars that comprise the entry; cleanliness and clarity of the honey; and design and content of the label.

CLASS 9: BLACK JAR

An entry consists of not less than two ounces, nor more than four ounces, of honey. Entries are to be submitted in black or colored jar which will be provided by the show secretary at the honey show. Entries must be unmarked and unlabeled, or unidentifiable in any way. Judges evaluate entries on the following: An entry is judged for flavor only.

CLASS 10: WAX BLOCK

An entry consists of one (1) block of pure beeswax. The block must weigh between one to two pounds, no more, and should have thickness no greater than 1.5 inches. The block should be smooth-surfaced and free of decorations or embellishments. Preferable color should be lemon yellow with a pleasant fragrance.

CLASS 11: CANDLES

(A) Dipped tapers: An entry for dipped tapers is defined as four (4) candles. Dipped tapers should have the last drip left on; the wicks must be left joined. (B) Molded tapers (spiral, octagon or straight sided accepted): An entry for molded tapers is defined as two (2) candles. Molded tapers must have flat finished bases with wicks well centered. The minimum length of all taper candles is eight inches. One of the candles in each entry will be burned (if time and conditions allow). Wicks must trimmed to one-half inch in length.

CLASS 12: MOLDED ORNAMENTAL CANDLES

An entry is defined as two (2) candles. Wicks must be trimmed to one-half inch in length. The form must have a flat finished base with wicks well centered. Candles will be judged on the above criteria as well as casting flaws and sharpness of detail.

CLASS 13: MEADS - (A) SWEET MEADS AND (B) DRY MEADS

Exhibitor may submit one example of a mead prepared by the Exhibitor. However, entrants may submit one entry in each of these classes. An entry consists of one, clear glass standard 750 ml wine bottle. Punt bottles are acceptable as long as they are standard pattern wine bottles. Tee Corks are the required, and only acceptable, closure; traditional inserted corks will not be accepted into the show. Mead should be filled to 5/8 of an inch

continued on next page



2018 BEEKEEPING INSTITUTE HONEY SHOW

RULES FOR INDIVIDUAL CLASSES

continued from previous page

above the top of the shoulder of the bottle. All mead must be produced from honey produced by the Exhibitor. All entries will be tasted. Judges evaluate entries on the following: Cleanliness, fill, color, clarity, lack of sediment, aroma, body and flavor.

CLASS 14: BRAGGOT (BEER AND ALE MADE WITH HONEY)

The Exhibitor may submit one example of a beer or ale prepared by the Exhibitor. An entry consists of one (1) glass, unembossed, standard 12 oz or 16 oz beer bottle. Clear glass is preferable; however colored glass is acceptable. Standard, unmarked crimped closures or lightening closures will be accepted. Bottle should be filled to midpoint between the bottom of the cap and the top of the shoulder of the bottle. All beer and ale must be produced from honey produced by the Exhibitor. All entries will be tasted. Judges evaluate entries on the following: Cleanliness, fill, color, aroma, body and flavor. A 3x5" white card with a description of the type or style of beer or ale and the full recipe (including all ingredients) must accompany each entry. No name should appear on the card.

CLASS 15: HONEY BEVERAGES - (A) Alcoholic; And (B) Non-Alcoholic

Exhibitor may submit one example of a honey beverage prepared by the Exhibitor. However, entrants may submit one entry in each of these classes. An entry consists of one (1) glass, unembossed, standard 12 oz or 16 oz beer bottle. Clear glass is preferable; however colored glass is acceptable. Standard, unmarked crimped closures or lightening closures will be accepted. Bottle should be filled to midpoint between the bottom of the cap and the top of the shoulder of the bottle. All honey beverages must be produced from honey produced by the Exhibitor. All entries will be tasted. Judges evaluate entries on the following: Cleanliness, fill, color, aroma, body and flavor. A 3x5" white card with a description of the type or style of beverage and the full recipe (including all ingredients) must accompany each entry. No name should appear on the card.

CLASS 16: HONEY CAKE (TRADITIONAL RECIPE)

The entrant may submit one honey cake. The cake is to be made according to the recipe provided and may not be deviated from in any way. The recipe must be followed exactly as written and all entries will be tasted. Absolutely no flavoring agents are to be added to the recipe. Cakes are to be baked in an eight-inch (8"), round cake pan. Cakes are to be presented dome up, unsliced, on a cardboard base, in a standard white cardboard cake box. Judges evaluate entries on the following: appearance, uniformity, moistness, texture, aroma and flavor. **See page 15 for the recipe.*

CLASS 17: HONEY CAKE (OPEN RECIPE)

The Exhibitor may submit one example of a cake baked by the Exhibitor. An entry consists of one (1) standard size cake, or two (2) cupcakes. Cakes may be, but are not required to be, iced or glazed. The recipe for the entry must include honey produced by the Exhibitor. Entries are to be presented on a cardboard base, in a standard white cardboard cake box. All entries will be tasted. Judges evaluate entries on the following: appearance, uniformity, moistness, texture, aroma, flavor, influence of honey on the finished product, and originality. A 3x5" white card with a description of the item and the recipe (including all ingredients and procedure) must accompany each entry. No name should appear on the card.

CLASS 18: HONEY BREADS

The Exhibitor may submit one example of a bread baked by the Exhibitor. An entry consists of one (1) standard size loaf, or two (2) rolls, biscuits, muffins, or mini-loaves. The recipe for the entry must include honey produced by the Exhibitor. Entries are to be presented on a plain white paper plate, enclosed in a zip-top bag. All entries will be tasted. Judges evaluate entries on the following: appearance, uniformity, moistness, texture, aroma, flavor, influence of honey on the finished product, and originality. A 3x5" white card with a description of the item and the recipe (including all ingredients and procedure) must accompany each entry. No name should appear on the card. *In the event an exhibit in this class is too large to fit in a commonly available zip-top bag, the exhibitor may submit his/her entry in some other appropriate, re-sealable container.



CLASS 19: HONEY CONFECTIONS

A confection is any pastry, pie, tart, petit flour, candy, chocolate, or other sweet food or delicacy, not otherwise encompassed in another class in this show. The Exhibitor may submit one example of a confection prepared by the Exhibitor. An entry consists of two (2) to six (6) servings. The recipe for the entry must include honey produced by the Exhibitor. Entries are to be presented on a plain white paper plate, enclosed in a zip-top bag. All entries will be tasted. Judges evaluate entries on the following: appearance, uniformity, moistness, texture, aroma, flavor, influence of honey on the finished product, and originality. A 3x5" white card with a description of the item and the recipe (including all ingredients and procedure) must accompany each entry. No name should appear on the card.

CLASS 20: ARTWORK RELATED TO BEEKEEPING

Artwork is the expression or application of human creative skill and imagination, often in a visual form such as (but no way limited to) painting or sculpture, producing works to be appreciated primarily for their beauty or emotional power. An Exhibitor may submit one example of any beekeeping-related artwork of their own composition. The artwork must be related to some aspect of bees or apiculture and must be the original composition of the Exhibitor. The artwork must be mounted or freestanding in design. Judges evaluate entries on the following: subject matter, aesthetic appeal, technical proficiency, creativity, and originality. A 3x5" white card with a description of the item must accompany each entry. No name or

identifying mark(s) should appear on the either the card or the exhibit. If the exhibit is already signed or marked in some identifying way, the exhibitor may obscure the signature or identifying mark.

CLASS 21: POETRY RELATED TO BEEKEEPING

This class includes the literary art of rhythmical composition for exciting pleasure, thought, action, or even disquiet by beautiful, imaginative, or elevated thoughts. An Exhibitor may submit one example of any beekeeping-related poetry of their own creation, of not more than 200 words or 20 lines, whichever is greater, excluding title line. All poems may be either neatly handwritten or typed, with single or double line spacing. Poems may be of any form, or style. All entries must be original works. Judges evaluate entries on the following: subject matter, aesthetic appeal, technical proficiency, creativity, and originality. Copyright of each poem remains with the author, but the Institute has the unrestricted right to publish the winning poems for promotional purposes.

CLASS 22: CRAFTS RELATED TO BEEKEEPING

A craft is a pastime or profession that requires particular skill and knowledge of a specialized field or subject. Craftsmanship typically denotes experience, knowledge, skill, and expertise in making things by hand. An Exhibitor may submit one example of any beekeeping-related craftwork of their own composition. The craftwork must be related to some aspect of apiculture and must be the original composition of the Exhibitor. The craftwork must be mounted or freestanding in design. Judges evaluate entries on the following: subject matter, aesthetic appeal, technical proficiency, creativity, and originality. A 3x5" white card with a description of the item must accompany each entry. No name or identifying mark(s) should appear on either the card or the exhibit. If the exhibit is already signed or marked in some identifying way, the exhibitor may obscure the signature or identifying mark.

CLASS 23: NEEDLECRAFT RELATED TO BEEKEEPING

This class includes any decorative or artistic exhibit of needlecraft, some examples of which might include knitting, crochet, lace, embroidery, quilting, cross-stitch, needlepoint, or weaving, relating to honey bees or beekeeping. An Exhibitor may submit one example of any beekeeping-related needlecraft of their own creation. The back of the work must be accessible for inspection. Judges evaluate entries on the following: subject matter, aesthetic appeal, technical proficiency, creativity, and originality. A 3x5" white card with a description of the item must accompany each entry. No name or identifying mark(s) should appear on the either the card or on the exhibit. If the exhibit is already signed or marked in some identifying way, the exhibitor may obscure the signature or identifying mark.

CLASS 24: NOTIONS, POTIONS, AND LOTIONS

An Exhibitor may submit one example of any health, bath, or beauty product, or any cleaner, polish, tincture, compound, or concoction of their own creation. The recipe for the entry must include honey, beeswax, and/or propolis produced by the Exhibitor. Entries are to be presented in a re-sealable container appropriate to the item. All entries will be sampled. Judges evaluate entries on the following: appearance, uniformity, texture, aroma, tactile feel, functionality, and originality. A 3x5" white card with a description of the item and the recipe (including all ingredients and procedure) must accompany each entry. No name or identifying mark(s) should appear on the card or on the exhibit itself.

CLASS 25: BEEKEEPING GADGETS

A gadget is a mechanical or electronic device or tool, especially one of an ingenious or novel nature. An Exhibitor may submit one example of any beekeepingrelated gadget of their own creation. The gadget must be related to some aspect of apiculture and must be the original creation of the Exhibitor. Judges evaluate entries on the following: craftsmanship, ingenuity, functionality, creativity, and originality. A 3x5" white card with a description of the item and its operation must accompany each entry. No name or identifying mark(s) should appear on the card or on the exhibit itself.

CLASS 26: PHOTOGRAPHS RELATED TO BEEKEEPING

An Exhibitor may submit one example of any beekeeping-related photography of their own composition. The photograph must be related to some aspect of apiculture and must be the original composition of the Exhibitor. The photograph must be mounted and in in a free-standing frame. Judges evaluate entries on the following: subject matter, aesthetic appeal, technical proficiency, creativity, and originality. A 3x5" white card with a description of the item must accompany each entry. No name or identifying mark(s) should appear on the card or on the exhibit itself.

CLASS 27: ELECTRONIC MEDIA RELATED TO BEEKEEPING

Electronic media is any medium that can be generated, viewed, or shared with an audience via an electronic device. An Exhibitor may submit one example of any beekeeping-related electronic media of their own creation. The Exhibitor must provide the appropriate or necessary viewing apparatus along with the entry. Entries which take time to observe, such as videos, gif files, or other recordings, may not exceed ten (10) minutes in duration. All entries must be original works. Judges evaluate entries on the following: subject matter, aesthetic appeal, technical proficiency, creativity, and originality.

TRADITIONAL HONEY CAKE RECIPE

Ingredients: 2 cups self-rising flour 8 oz honey by weight 9 1/2 Tablespoons butter 2 eggs Pinch of salt Cream together butter and honey. Beat eggs well and add alternately with sifted flour and salt to the honey/butter mixture. If needed add a little milk. Bake in a greased 8-inch round cake pan at 325 degrees for 35 to 40 minutes or until a toothpick comes out clean.

No additions to the honey cake recipe please!

THURSDAY | MAY 10, 2018

Welcome and opening details 8:00-Maxwell 113,114 8:15 a.m. **Rollins Suber** Keith Delaplane Plenary lecture: The place of pesticides in pollinator decline 8:15-9:05 a.m. Reed Johnson **Rollins Suber Certified Practical Exams Available By Appointment Parasites** Getting Winter **Rearing the** "Modern How to grow **Pathogens** Welsh started: the best queens primitive" a nuc and spring **Honey Judge** Jennifer Paul Arnold principles beekeeping management training 9:15-Jan Lohman Berry Broadus Maxwell 117 levels II 10:05 a.m. Lonnie Jack Garrison Williams Damon **Rollins Suber** Rollins and III Funderburg Wallace Hatcher **Behind** Maxwell 107 Arthur Maxwell 106 Maxwell Maxwell 116 "Brutz" English **Parasites** Landscape Getting **Pathogens** Winter Rearing the "Modern Nicholas plants started: the and spring best queens primitive" Geoff Cindy Hodges Weaver for bees principles management beekeeping Williams Broadus 10:15-Maxwell 117 and other Michael Slade Jarrett Williams Damon Dan Long Rollins 11:05 a.m. pollinators Young Wallace Hatcher Maxwell 106 **Behind** Maxwell 107 Keith Fielder **Rollins** Maxwell 116 Maxwell Level II **Rollins Suber** Landscape **Parasites** Getting Winter Solitary bees Pathogens The secret plants started: the life of and their and spring Jennifer Paul Arnold conservation for bees principles management drones Berrv 11:15 a.m. Maxwell 117 and other Lonnie Jack Garrison Julia Christine Rollins -12:05 p.m. pollinators Funderburg Mahood Fortuin Hatcher **Behind** Keith Fielder Maxwell 106 Maxwell Maxwell 107 Maxwell 106 **Rollins Suber**

Color Key



Certified Practical Exams



Recommended for beginning beekeepers and/or Certified Exam registrants.

Welsh Honey Judge activities

Master activities

IMPORTANT NOTES

- Thursday and Friday lectures are open to everybody, but candidates for the Certified written exam should pay special attention to classes highlighted in blue. Certified practical exams (two-part, indoor and outdoor) are offered by appointment today and Friday morning. Please sign up for a time slot when you check in*.
- Registration is open Thursday and Friday from 7 a.m. until 6 p.m. and will be closed during lunch.
- Class descriptions can be found on pages 20-21.

- Classes 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 noon. See pages 11-15 for more information.
- Please do not ask Institute instructors for copies of their digital presentations. There are many copyright and intellectual property difficulties.

THURSDAY | MAY 10, 2018

12:05 - 1:15 p.m. 1:15-	Advance ticket Rollins Cafeter	ia	gistrants ilable in the Rolli ir in a comm	ŗ	Invitational Master Luncheon Open to sitting Master and Master Craftsman beekeepers only. Pre-registration required. Master Beekeepers are encouraged to wear their badges. Q&A time with speakers Berry, Delaplane, Johnson, Lohman, G. Williams, Young Rollins Third Floor Student Loft				
2:05 p.m.	Jan Lohman	Rollins Suber							113,11
2:15- 3:05 p.m.	Bee and beekeeper defenses <i>Geoff</i> <i>Williams</i> Rollins Suber	Biology of individuals Reed Johnson Rollins Hatcher	Biology of the colony Keith Delaplane Maxwell 117	Getting started: the real thing Will Dix Behind Maxwell	Catching swarms Broadus Williams Behind Maxwell	The secret life of drones Julia Mahood Maxwell 107	Welsh Honey Judge levels I and II Arthur "Brutz" English Nicholas	Solitary bees and their conservation Christine Fortuin Maxwell 106	pointment Maxwell 113,114
3:15- 4:05 p.m.	Bee and beekeeper defenses <i>Geoff</i> <i>Williams</i> Rollins Suber	Biology of individuals Reed Johnson Rollins Hatcher	Biology of the colony Lance Wilson Maxwell 117	Getting started: the real thing Jack Garrison Behind Maxwell	Things to consider when processing honey Bob Binnie Maxwell 106	Cell-punch method for queen rearing Wil Montgomery Maxwell 107	Nicholas Weaver Michael Young Rollins Level II	Observation hives Dan Long Maxwell 116	Certified Practical Exams Available By Appointment
4:15- 5:05 p.m	How to grow a nuc Jan Lohman Rollins Suber	Biology of individuals Cindy Hodges Rollins Hatcher	Biology of the colony Keith Delaplane Maxwell 117	Getting started: the real thing Will Dix Behind Maxwell	Things to consider when processing honey Bob Binnie Maxwell 106	Cell-punch method for queen rearing <i>Wil</i> <i>Montgomery</i> Maxwell 107		Observation hives Dan Long Maxwell 116	Certified Practical
5:15 p.m.	Honey Show Awards with ice cream social to immediately follow Rollins Suber								

GROUP ICE CREAM SOCIAL

LOCATION

Rollins Suber Immediately following the Honey Show Awards

FRIDAY | MAY 11, 2018

8:00- 8:15 a.m.	Welcome and opening detailsKeith DelaplaneRollins Suber										
8:15- 9:05 a.m.	Plenary lecture: 50 years of honey bee virology Lewis Bartlett Rollins Suber										
9:15- 10:05 a.m.	Top 10 best practices in modern beekeeping Lance Wilson Rollins Suber	Oxalic glycerin towels: the update Jennifer Berry Rollins Hatcher	Building hive equipment Lonnie Funderburg Maxwell 108	Summer and fall management Nicholas Weaver Behind Maxwell	Basic honey processing Wil Dix Maxwell 117	Overview of Welsh Honey Judge program for beginners Arthur "Brutz" English Rollins 258	How honey and wax are made Bear Kelley Maxwell 116	Apitherapy with honey Mary Cahill- Roberts Maxwell 106	ointment Maxwell 113,114		
10:15- 11:05 a.m.	Using mathematics to understand honeybee disease Lewis Bartlett Rollins Suber	Oxalic glycerin towels: the update Jennifer Berry Rollins Hatcherr	Building hive equipment Lonnie Funderburg Maxwell 108	Summer and fall management Slade Jarrett Behind Maxwell	Basic honey processing Wil Dix Maxwell 117	Overview of Welsh Honey Judge program for beginners Arthur "Brutz" English Rollins 2586	How honey and wax are made Bear Kelley Maxwell 116	Apitherapy with honey Mary Cahill- Roberts Maxwell 106	Certified Practical Exams Available By Appointment		
11:15 a.m. -12:05 p.m.	Increasing propolis collection in your hives <i>Cindy Hodges</i> Rollins Suber	Reusable beeswax wraps Julia Mahood Rollins Hatcher	Building hive equipment Lonnie Funderburg Maxwell 108	Summer and fall management Nicholas Weaver Behind Maxwell	Basic honey processing Wil Dix Maxwell 117		Honey varietals, pairings, and taste components <i>Keith Fielder</i> Maxwell 116	Art therapy with beekeeping Cristina Echezarreta Maxwell 106	Certified Practic		
12:05 - 1:15 p.m.											
1:15- 2:05 p.m.	Plenary lecture: When chemicals and pathogens collide Certified written exam Geoff Williams Rollins Suber										
Color Key											
C	Open sessions Certified Practical Exams Recommended for beginning										

Certified Practical Exams

beekeepers and/or Certified Exam

registrants.

Open sessions

FRIDAY | MAY 11, 2018

2:15- 3:05 p.m.	Using mathematics to understand honeybee disease Lewis Bartlett Rollins Suber	Reusable beeswax wraps Julia Mahood Rollins Hatcher	Pieces and parts of a bee hive Bob Binnie Maxwell 107	Removing bees from walls Broadus Williams Maxwell 117	The Oregon Master Beekeeper Program Jan Lohman Maxwell 106	Honey varietals, pairings, and taste components <i>Keith Fielder</i> Maxwell 116	Mead making Michael Young Maxwell 113	Urban vs. Ag: what are the risks for bees? <i>Reed Johnson</i> Maxwell Planetarium
3:15- 4:05 p.m.	Top 10 best practices in modern beekeeping Lance Wilson Rollins Suber	Keeping bees alive Slade Jarrett Rollins Hatcher	Pieces and parts of a bee hive Bob Binnie Maxwell 107	Removing bees from walls Broadus Williams Maxwell 117	Make-your-own beekeeping field toolbox** Dan Long Maxwell 108	Producing comb honey Mary Cahill- Roberts Maxwell 116	Mead making Michael Young Maxwell 113	Urban vs. Ag: what are the risks for bees? <i>Reed Johnson</i> Maxwell Planetarium
4:15 - 5:05 p.m.	Increasing propolis collection in your hives <i>Cindy Hodges</i> Rollins Suber	Keeping bees alive Slade Jarrett Rollins Hatcher	Honey bee facts Jan Lohman Maxwell 107	Top Bar Beekeeping Julia Mahood Maxwell 117	Make-your-own beekeeping field toolbox** Dan Long Maxwell 108	Producing comb honey Mary Cahill- Roberts Maxwell 116	Mead making Michael Young Maxwell 113	The seven things successful beekeepers have in common! <i>Keith Fielder</i> Maxwell Planetarium

6:00 Group Dinner – Low Country Boil

p.m. At the Retreat at Hiawassee River (see directions below). Tonight we recognize the new Journeyman, Master, Master Craftsman, and Welsh honey judges.

*Certified candidates must sit for two exams: a practical (two-part) and written. The written exam is today 1:15.

**Students will build and take home a field toolbox (see photo). Check your intention to attend this workshop on the registration form. An additional course fee of \$25 per participant will be collected at registration to cover costs for materials.



GROUP DINNER INFORMATION

LOCATION

Hiawassee River Retreat 15 Cabin Drive Hiawassee, GA 30546 (706) 896-7400 | 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
- Immediately turn left and follow signs. Park in the grass behind the pavilion.

If you are in need of additional directions or assistance, please stop by the registration desk before 5:30 p.m.

CLASS DESCRIPTIONS

50 YEARS OF HONEY BEE VIROLOGY (PLENARY LECTURE)

A roadmap from the earliest days of honey bee virology to today's unfolding revelations of these complex, yet simple pathogens

A YEAR IN A COMMERCIAL BEEKEEPER'S LIFE (PLENARY LECTURE)

America's beekeepers constitute one of the last truly migratory lifestyles in western economies. Come learn about this economically powerful yet relatively small beekeeping demographic.

APITHERAPY WITH HONEY

An overview on the health benefits, biology, and application of honey as an aid to human health and wound recovery

ART THERAPY WITH BEEKEEPING

Bees and beekeeping have long been objects of inspiration for great works of human creativity. This workshop will overview success stories of using beekeeping art in the context of vocational education programs for Georgia prison inmates.

BASIC HONEY PROCESSING

Everything a beginner needs to know for removing, uncapping, extracting, and bottling honey. A hands-on workshop.

BEE AND BEEKEEPER DEFENSES

An overview of the natural defenses at the disposal of the bees, and their beekeepers, for reducing the negative impacts of parasites and pathogens on bee health

BIOLOGY OF THE COLONY

Biology of the honey bee colony occurs at two levels – the individual bees and the colony of which they are a part. This section covers the overriding survival strategy of a colony over the course of 12 months.

BIOLOGY OF INDIVIDUALS

Biology of the honey bee colony occurs at two levels – the individual bees and the colony of which they are a part. This section covers development, morphology, and behaviors of the three main bee types in a colony.

BUILDING HIVE EQUIPMENT

A hands-on demonstration of constructing the basic components of a bee hive

CATCHING SWARMS

One of the most ancient and mystical practices of beekeeping is capturing and hiving a swarm. This workshop will explain the materials and methods necessary for handling the next swarm call that comes your way.

CELL-PUNCH METHOD FOR QUEEN REARING

A perennial favorite at the Young Harris Institute – a how-to workshop on rearing queens without grafting

GETTING STARTED: THE PRINCIPLES

The basic theory and knowledge behind acquiring and successfully establishing your first bee hive

GETTING STARTED: THE REAL THING

A live demonstration of the methods for getting started with real bees and hives

HONEY BEE FACTS

A fun exposition of some of the most astounding facts about our favorite insect – useful for your next classroom presentation, farmers' market, or beekeeping short course

HONEY VARIETALS, PAIRINGS, AND TASTE COMPONENTS

Honey offers a sensation to the discriminating palate as sophisticated as the finest wines. Come learn about the spectacular honeys of Georgia and the components that give them their unique character.

HOW HONEY AND WAX ARE MADE

This workshop will remove (some of) the mysteries behind how bees produce these most famous products of the bee hive.

HOW TO GROW A NUC

Recent years have seen a spike in demand for small nucleus colonies ("nucs") complete with brood and a laying queen. Compared to packages, nuc colonies grow quickly and are capable of making a honey crop their first year. Come learn how to produce and use these useful startup colonies.

INCREASING PROPOLIS COLLECTION IN YOUR HIVES

New research has convincingly demonstrated the bee health benefits of propolis – the natural tree resins bees collect and apply to the interiors of their nests. Come learn how to encourage your bees to collect more of this health-giving substance.

KEEPING BEES ALIVE

Heavy colony losses have become the rule, not the exception for most operators in recent years. Nevertheless, there is a core of standard practices that can significantly improve your odds. Come learn from the experience of a professional north Georgia beekeeper.

LANDSCAPE PLANTS FOR BEES AND OTHER POLLINATORS

Planning smart with your next flower installation can make a big difference in its benefit to pollinators. Come learn about the best bee plants for our part of the world.

MAKE YOUR OWN BEEKEEPING TOOL BOX

An ideal toolbox design for the beekeeper traveling between yards. In the designer's own words, "It's skinny to fit behind the seat of a truck (before you light the smoker!), has a low center of gravity, and keeps all the tools inside the box. Haven't lost a tool or dumped a smoker in the bed of the truck yet!" Students will build and take home their own toolbox. Course requires reserved seat space and \$25 materials fee (see registration form).

MEAD MAKING

The basic tools and methods for making mead – honey wine.

CLASS DESCRIPTIONS

"MODERN PRIMITIVE" BEEKEEPING

The Langstroth hive is a relative newcomer in the history of beekeeping. Come get an overview of more traditional methods of housing bees, their pros and cons, and ways to interface traditional methods with our modern understanding of bee biology.

OBSERVATION HIVES

Always a crowd pleaser and a staple of nature centers across the country, observation hives are nevertheless tricky to keep strong and healthy. Come learn how to manage observation hives to provide optimum viewer experience.

THE OREGON MASTER BEEKEEPER PROGRAM

A how-to success story on establishing a successful MBP from numerous cooperating entities.

OVERVIEW OF WELSH HONEY JUDGE PROGRAM

Come learn the history of this program, the advantages of its uniquely British and sensory approach to judging honey and hive products, and how you could take the first steps toward "wearing the white coat."

OXALIC / GLYCERIN TOWELS: AN UPDATE

UGA is partnering with other individuals across the country to test the efficacy and safety of this new method for treating Varroa mites. Come hear the latest on this ongoing research.

PARASITES

A beginner's overview of the major honey bee parasites and methods for management

PATHOGENS

A beginner's overview of the major honey bee disease organisms and methods for management

PIECES AND PARTS OF A BEE HIVE

Not about basic hive parts, but rather an overview of modifications and peripherals that simplify beekeeping. From the experiences of a professional honey producer.

THE PLACE OF PESTICIDES IN POLLINATOR DECLINE (PLENARY LECTURE)

"Multiple factors" has become the catchall explanation for pollinator decline, but there are studies illuminating the particular contribution of environmental pesticides. Come hear about this from one of the world's leading honey bee toxicologists.

PRODUCING COMB HONEY

Some consider comb honey the most sublime of bee hive products. As such, it takes extra effort and care to produce this premium product. Come learn important pointers from a Senior Welsh Judge.

REARING THE BEST QUEENS

Good queens are a combination of genetics and optimum rearing conditions. An overview of the basic methods for rearing queens for your own operation or for sale.

REMOVING BEES FROM WALLS

Bees often nest in hollow walls of structures, and removing these unwanted colonies requires a unique skill set and constitutes a source of extra revenue for a beekeeper.

REUSABLE BEESWAX WRAPS

Among the ever-expanding list of creative uses for bee hive products is this one: in the words of the instructor, beeswax wraps are "thin cotton fabric permeated with beeswax and resin. The wax makes it easy to mold over the top of a bowl, or to wrap up a sandwich or any other food. It's not recommended to use it directly on meats, but otherwise they last a really long time with just a rinsing between uses, and mild detergent from time to time."

THE SECRET LIFE OF DRONES

The male of the species is known primarily as the inseminator of the queen. But is there any more to his "simple" story?

THE SEVEN THINGS SUCCESSFUL BEEKEEPERS HAVE IN COMMON

Successful beekeeping is not a matter of possessing "secret knowledge," but rather faithful application of a few good principles. Come hear from one of the region's premier beekeeping educators.

SOLITARY BEES AND THEIR CONSERVATION

The thousands of species of non-social, native solitary bees constitute the powerhouses of pollination. Come learn about these important insects and ways you can promote their numbers around your property.

SUMMER AND FALL MANAGEMENT

A relatively slow time in beekeeping, yet important for laying the groundwork for successful overwintering.

THINGS TO CONSIDER WHEN PROCESSING HONEY

This is not a beginner's class (see Basic honey processing), but rather words of detailed observation and experience on the matter from a professional honey producer and packer.

TOP BAR BEEKEEPING

A growing number of beekeepers are attracted to this low-tech alternative to the standard Langstroth hive. Come learn from a practitioner the ups and downs of this method of beekeeping.

URBAN VS. AG: WHAT ARE THE RISKS FOR BEES?

From a bee's point of view, which habitat is preferable for health and fitness?

USING MATHEMATICS TO UNDERSTAND HONEY BEE DISEASE

Far from the eye-dulling memories of our school days, math and mathematical modeling can give penetrating insights into what's important, or not, in bee disease dynamics.

WHEN CHEMICALS AND PATHOGENS COLLIDE (PLENARY LECTURE)

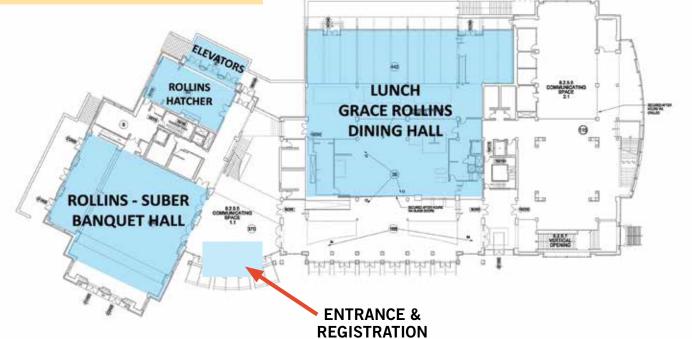
Among the multiple factors contributing to pollinator decline are the insidious interactions between pesticides and bee pathogens. Come learn about this from one of the most active young scientists in the field.

WINTER AND SPRING MANAGEMENT

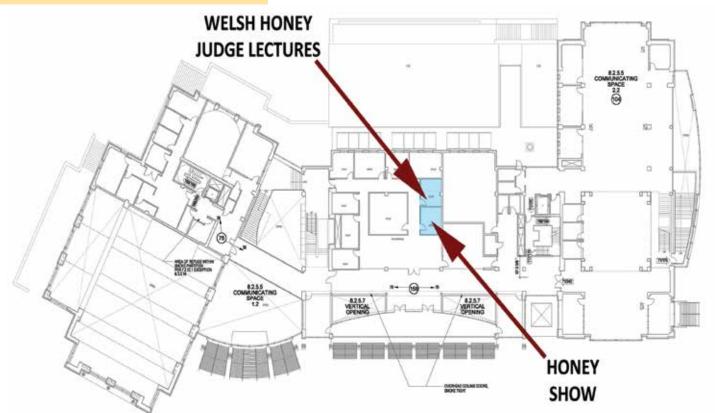
This is the time of the year to secure optimum colony strength and productivity. Come learn the priorities and pitfalls of this most busy of seasons.

INSTITUTE MAPS

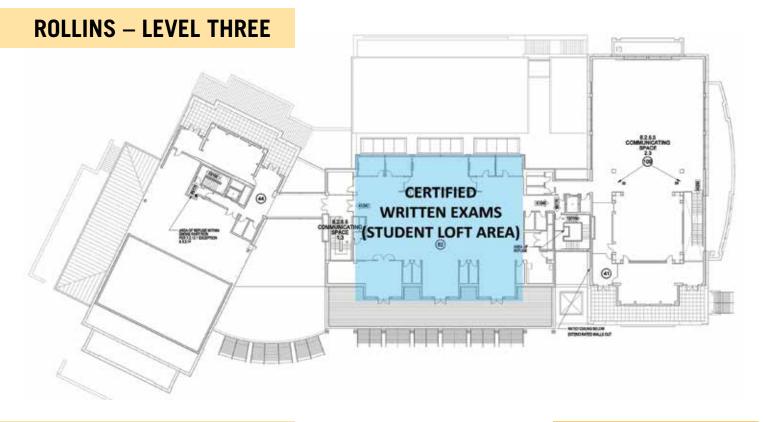




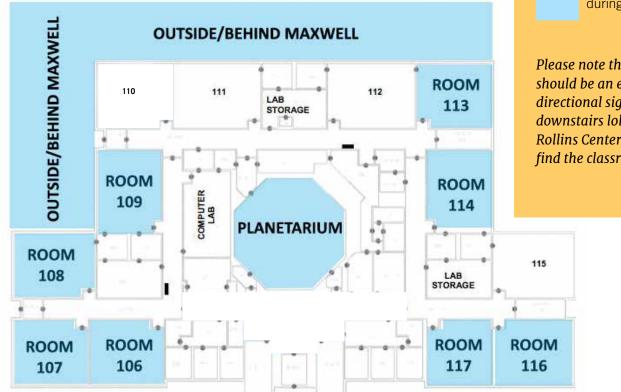
ROLLINS – LEVEL TWO



INSTITUTE MAPS



MAXWELL CENTER



Classrooms used during the institute

Please note that there should be an electronic directional sign in the downstairs lobby of the Rollins Center to help you find the classrooms.

