A Murray State student is bringing buzz to Pullen Farm.

MacKenzie Jones, a Frankfort sophomore majoring in agriculture science and agriculture education, is building an apiary on Murray State’s 40-acre facility dedicated to student learning.

Dr. Brian Parr, department head of agriculture science, also helped in the construction of Jones’s bee farm. He said he had a great time working with Jones’s family. Bill (uncle), Kennan (brother), Charlie (father), Robin (mother), and Elic (grandfather) helped with the fence construction.

Murray State Dean Tony Brannon and Dr. Steven Still assisted Dr. Parr and Jones with tools such as a tractor and sweat equity to get the job finished. EAS Master Beekeeper Kent Williams is serving as advisor.

Jones and her family built a fence to wrap around the farm, protecting community walkers from the bees and the beehives from vandals.

The fence, made of lumber from Jones’s uncle’s farm, is three-fourths of the way completed. However, the apiary will also need equipment, smokers, hive stands, gravel and jackets for anyone who goes inside.

Jones said the apiary will provide the benefits of pollinating Pullen Farm and educating the community.

“It will put a spotlight on the Hutson School of Agriculture, because bees are such a hot topic right now," Jones said. "Especially with the bumblebee being put on the endangered species list, the attention has kind of been brought back to the bees.”

The U.S. Fish and Wildlife Service has designated the rusty patched bumblebee an endangered species. A report by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services says more than 40 percent of insect pollinators, particularly bees and butterflies, face global extinction.

Jones said she wants to show people Murray State is doing its part to save the bees. One way, she said, is by creating more Varroa mite-tolerant bees. “If a tick was a dinner plate on us, that’s the comparison of Varroa mites for a bee,” Jones said. “Varroa mites are the main reason...
bees are dying – not because of the bite, but because of the
diseases they carry."

Ten nucs, or nuclear hives, have been purchased for
the apiary. Jones said she plans on growing the hives
throughout the summer and catching at least 10 swarms of
bees. She estimates having 20-25 hives.

**Internship sparked her interest**

Despite her traction with the apiary, Jones hasn’t always
been a bee expert. She said it was a summer internship
with the Kentucky Department of Agriculture that spurred
her interest in bees. Jones was placed in the animal health
division, where she worked at stockyards and with **Dr.
Tammy Horn Potter**, the state apiarist.

“She took me out and made me handle bees,” Jones
said. “She didn’t really tell me, ‘Here’s some gloves. You
should definitely wear these!’ or ‘Oh, you know they sting.
Be careful!’ She was just like, ‘Here’s your jacket. Have fun.’”

As a Murray State Presidential Fellowship recipient,
Jones consulted with Dr. Potter about finding a new project.
“It [her talk with Dr. Potter] started a conversation about
bees and Murray State. We wanted to see if we could start an
apiary here,” Jones said.

Jones met with **Dr. Tony Brannon**, dean of Hutson
School of Agriculture, and Dr. Parr, who is Jones’s research
advisor. Jones said both were on board with the project.

“MacKenzie is an amazing student,” Dr. Parr said, “and
this project has allowed her to be involved in everything
— planning, funding, designing and construction. She has
managed this project from concept to creation. That is great
real-world preparation.”

University video: [http://msublueandgold.org/2017/03/
murray-state-student-builds-a-bee-farm-on-pullen-farm](http://msublueandgold.org/2017/03/murray-state-student-builds-a-bee-farm-on-pullen-farm)

**List your bee products, services on new KSBA “Buy Local” page**

Kentucky State Beekeepers Association (KSBA) members
can now advertise their honey bee related products and
services on KSBA’s new “Buy Local” page.

Products and services listed on the site include honey,
pollen, propolis, nucs, queens, lotions/creams, lip balms,
candles, beeswax, beekeeping equipment, honey bee related
art, plants for honey bees, swarm removal, and hive removal
from trees or buildings, said KSBA webmaster **Shannon
Trimboli**.

Where appropriate, members can self-certify that their
honey, pollen, propolis, and beeswax are from hives located
in Kentucky, and/or that their nucs and queens come from
bees raised in Kentucky.

To feature your products or services, join KSBA and fill
out the second page of the membership form.


**Refrigerator converts to honey warmer**

Mike Vittitow, Washington County Beekeepers Association, modified
this refrigerator to convert it to a honey warmer. He does have
to caution his customers that they should not put their honey
in the freezer when they return home! There is a heat bulb in the
bottom, a fan in the freezer, and a programmable thermometer on
the outside. “I wish Mike could enter his Honey Warmer into the
State Fair Beekeeping Gadget competition, but it is just a tad
cumbersome!” said Tammy Horn Potter. (WCBA photo)
**Bee Education events**

- **May 13: Pollinator Day** at McAlpine Lock and Dam, 2750 Marine Street, Louisville. Activities begin at 10 a.m. EDT. RSVP to Dewey, (502) 774-3514.

- **May 19-20: Kentucky State University Farm Days,** Jenny Wiley State Park, Prestonsburg. Beekeeping classes available. Laura Rogers, KSU Small Farm Area Agent, (606) 344-0712. Email laura.rogers@kysu.edu.

- **June 3: Kelley’s Field Day,** Clarkson.

- **June 3: Kentucky State Beekeepers Association Summer Business Meeting,** immediately following Kelley’s Field Day. The business meeting will be held in the old office building, which is now a training center. This year’s keynote speaker will be queen producer and author Larry Connor.

Please note that the KSBA business meeting is separate from the Kelley’s field event. KSB members are invited to attend the business meeting at no charge after the field event has ended. Associations, please send a representative so that a quorum can make decisions. This will be a good time to organize for the Kentucky State Fair.

- Tammy and Doug Potter’s previously announced queen production workshop has been cancelled due to scheduling complications. It will be re-scheduled after the State Fair.

**Bee Diagnostic Lab temporary suspends services; hold samples TFN**

Jay Evans, Research Leader, USDA-ARS Bee Research Laboratory, Beltsville, Maryland, announces the suspension of activity for the **USDA Bee Disease Diagnostic Service** due to a staffing crisis.

“Please do not submit new samples until further notice,” Evans advised. He said he hopes this will only be a temporary closure and the lab will be back online soon.

“This is very unfortunate, as a lot of inspection services rely on the lab,” said Mark Dykes, chief inspector for the Texas Apiary Inspection Service in College Station, Texas.

The University of Maryland Bee Lab supported Samuel Abban as leader of this 100-year-old program, but Samuel is now needed full-time for a critical spring research project, Evans said. Every effort is being made to finalize the hiring of Samuel as a USDA employee so that he can continue this program.

Samples on hand will be held in cold storage.

In the meantime, the Bee Informed Partnership offers a paid service for analyzing colony loss samples, at beeinformed.org/programs/emergency-response-kits-2.

“We look forward to continuing this program as part of USDA-ARS efforts to help beekeepers. Please contact us regarding urgent needs,” Evans said.

In the interim, until the lab is back online, Evans is assembling a list of states that provide some of the services the Beltsville lab offered, including the ability to process samples for foulbrood identification. The list will contain information on price, turnaround time, and other details.

“Once we hear from everyone, we will put up a members-only page on the website with the list,” he said.

Jay Evans: jay.evans@ars.usda.gov, (301) 504-5143. Mark Dykes: mdykes@tamu.edu, website http://txbeeinspection.tamu.edu.
The Kentucky State Fair will be here before we know it. Many beekeepers are having a good year due to the relatively mild winter. Some people are already considering taking honey!

**July 1 is the deadline to enter categories,** and you can submit your categories online at [Kentuckystatefair.org](http://www.kentuckystatefair.org).

Local bee association presidents and Extension agents may deliver Kentucky State Fair entries as long as the entries have the appropriate tags and arrive before 6 p.m. Monday, Aug. 14.

**Ginny Mitchell** of Iowa State University will return to Kentucky to judge the Bees and Honey Cookery competition. **Bud Spath** will be the 2017 assistant superintendent. Honey Cookery judge **Jill True** will again oversee the culinary competition.

This year’s KSBA President is **Rick Sutton**, no stranger to honey competitions. Rick just judged the 2017 American Beekeeping Federation Honey Show. He will be coordinating the KSBA Honey Booth.

Some **rule changes** to be aware of this year: In all adult or youth classes, items submitted must not have any reference to the exhibitor. This rule change may apply to Honey Cookery more than other classes, but the effort is to provide impartial judging. Any items so identified will be disqualified and will be on display only after judging is completed.

**Beth Wagner** of the Kentuckiana Beekeepers Association entered an **observation hive** last year, which, for me, was a real highlight of the State Fair competition. I would like to see more observation hives entered if possible. We have the ventilated cases, and observation hives may be picked up after judging to allow bees to fly.

There is a new category called **Photograph (General Beekeeping)**. The photos need to be taken by the exhibitor this year (2017). Here are the criteria: Maximum size 8x10 inches, unframed but matted with a maximum two-inch border. Subject must be honey or beekeeping and may depict harvesting, processing, marketing, or packaging bee hive products.

**Artistic Beeswax** was a success last year, so that category is back.

There is a new category for Youth: **Beeswax candles** (molded, various shapes, rolled). Entries are to showcase the natural beauty of beeswax. No added color is allowed.

There are both 4-H and Open youth categories for products in the Bees and Honey competition.

In terms of honey cookery, **Honey Nut Bread** is back as a category. **Cornbread** has been added as a new category. **Honey-Based Granola** is its own category, as is **Nut-Based Snack**.

Just a reminder to those wonderful cooks who spend so much time on the entries: Please do not use identifiers such as uniquely-colored ink on the exhibit tags. Also please use non-identifiable plates. The judges want to be as impartial as possible.

We also request that if you enter a pie, that you clearly state how the pie crust incorporates honey (brushed decoration is just fine). We ask that all honey cookery products be turned in with recipes.
Guidelines and tips for working the KSBA Honey Booth

By John Benham, former KSBA president

The one-pound jar is always the biggest seller and the most popular size in the stock, so competition is heavy.

Cut comb in jars and boxes always sells out, and is the one product of which we never have enough.

Some volunteers aren’t aware that these rules are posted at the booth.

- Be courteous!
- The Health Department rules require the use of a new taster spoon for each sample.

- It is okay to present your honey, but do not try to change a customer’s mind from another choice he or she has made.
- Let people know we have candles, books, candy, etc., for sale.
- Tell the manager if someone is running low on honey. The manager will call the beekeeper if someone is low.
- Fully re-stock the table throughout and at the end of the day (honey and candles). Cover all with cloth at day’s end.
- Pull any honey that has fermented or crystallized.

Heartland Conference set July 13-15 in Evansville, Ind.

The 16th annual Heartland Apicultural Society Conference is set for July 13-15 at the University of Southern Indiana, Evansville.

The conference will feature three days of breakout sessions including a queen rearing class, a children’s program, a honey show, an art show, and vendor booths.

Keynote speakers are to include:

- Dr. Ernesto Guzman, professor at the University of Guelph, Ontario, Canada;
- Dr. Jeff Harris, assistant professor, Mississippi State University; and
- Judge Dan O’Hanlon, who led the effort to pass a bill in West Virginia granting immunity to beekeepers, the first in the nation.

Sessions include:

- Q-&-A events with Jerry Hayes, honey bee lead for Monsanto’s BioDirect business unit.
- Seasonal management, with Dr. Larry Connor or Jim Tew, is always a favorite topic.
- The knowledgeable and entertaining David Shenefield will share his knowledge of 40-plus years of beekeeping in sessions on hive inspection and commercial talks.
- Master Beekeeper Kent Williams can speak on any bee-related topic.

Other sessions are planned on topics including planting for bees, top bar hives, cutouts, and many more.

On the social side, organizers are planning a Wednesday evening July 12 “movie night” for those who report early, a Thursday night ice-cream social, and a Friday night barbecue.

The Heartland Apicultural Society was founded in 2001 by Kentucky State University researcher Tom Webster, Purdue University entomologist Greg Hunt, and Michigan State University entomologist Zachary Huang.

The first conference was held at Goshen College, Indiana. Indiana hosted it again in 2006, and in 2011 the conference took place at Vincennes University.

Their mission is to promote beekeeping by educational conferences held each year.

Key participants are the Purdue Apiary Team with Dr. Greg Hunt, Krispn Given, and crew, who always host a queen rearing class; Tom Webster of KSU; and Dwayne Rekeweg, who has represented Indiana since the society was founded.

Updates on speakers, agenda, hotels, and other conference details: heartlandbees.org.
THE SWARM:
Coming to a surface near you!

No need for any drama, if you follow this good advice on catching swarms in the spring.

(From Tammy’s Facebook page)

By Tammy Horn Potter, Douglass Potter, and Dwight Wells

- A “deep” hive is an attractive swarm trap because the inside space is around 40 liters, about the right size. Two medium supers will suffice.
- Doug paints his swarm traps a dark olive green.
- The trap needs to be hung about 12 feet, although Doug doesn’t like to climb 40 feet, and he bought a platform ladder for more stability.
- The hole is approximately 1.25 inches in diameter, about an inch or two off the bottom. Doug inserts a nail so that predators cannot fly in.
- Doug also puts a chunk of comb on the floor, drawn foundation, and lemongrass-soaked cottonballs stuffed inside a straw inside this swarm.

Tammy and Doug have caught eight swarms since April 1, and not all were in the traps.

These notes are from Harold Sanford, who taught classes at the Lake Barkley Field Days held at Kent Williams’s farm.

- Choose your location carefully. Swarms choose locations beside creeks, treelines, and clear access. Do not put traps in full sun.
- Swarms like to go to the same tree. If you get a swarm in one tree, take the trap down and put another in its place immediately.
- Do not climb trees or deer stands. The idea is attractive, but not worth the risks.
- Wear a full suit because of ticks, which can carry Rocky Mountain spotted fever, Lyme disease, and other diseases. Also, put DEET on your socks.
- When filling the inside of a swarm trap, use good frames. Using partial frames is inefficient. Do not be tempted to use junk frames.
- Do not put too much lemongrass inside the swarm trap as a lure.
- (Tammy’s favorite) Catching swarms is a lot like fishing: If you don’t put out a box, you will not catch a swarm!
April flowers bring May monarchs

Transportation Cabinet’s monarch waystations also beautify Kentucky roadsides

The Kentucky Transportation Cabinet (KYTC) is paving the way this spring for the monarch butterfly.

In addition to continuing the Cabinet’s traditional planting of wildflowers along state roadsides, KYTC agronomists will be establishing monarch butterfly waystations for the diminishing species.

“Wildflowers planted along state roadsides by the Transportation Cabinet offer scenes of vivid color for travelers, provide sources of nourishment for pollinators and create a favorable impression of Kentucky for tourists,” said David Cornett, assistant director of KYTC’s Division of Maintenance.

Transportation Cabinet agronomists plan to establish 10x10 or 10x20 habitat plots at all rest areas and state welcome centers this spring.

No milkweed, no monarch

The monarch habitats, composed of common milkweed and nectar-producing plants, will provide spaces for monarchs to lay their eggs and to refuel during their two-way migration. Without nectar, adult monarchs cannot replenish the energy supply needed for their long migratory trip.

The monarch, famous for its migration from Canada to Mexico, is the only butterfly known to make a two-way bird-like migration, a mystery that baffles scientists.

Over the past two decades, the monarch butterfly population has declined by 80 percent. The destruction of milkweed in natural habitats is largely responsible; the monarch butterfly lays eggs exclusively on milkweed plants.

In addition, monarch caterpillars eat only milkweed, so without milkweed, monarchs will not survive. The butterfly species may be listed as endangered or threatened as early as 2018.

Nectar from the waystation flowers will also attract a variety of pollinators, including bees and hummingbirds – a benefit that fulfills a component of the Kentucky Department of Agriculture’s Pollinator Protection Plan.

Colorful palette for pollinators

Wildflower bulbs planted along roadsides last fall and additional seeds planted this spring will produce splashes of colorful blooms – including lavender, orange, purple, blue, red, and yellow – to attract pollinators. Wildflower patches will create approximately 120 acres of scenery across the Commonwealth.

The wildflower patches, along with this year’s new waystations, will beautify the state, contribute to pollinator conservation and preserve the pathway for the highly recognized black and orange butterfly whose existence is threatened.

More information on monarch waystations: monarchwatch.org.

(KYTC press release)

ZIKA updates, trapping advice, information resources found online

Spring is the time of year when many types of bees become more visible to people (see the swarm picture on page 6, shared by Washington County Beekeepers Association member Tony Hutchins).

The Bees in Your Backyard (2016) is a great resource for learning more about the different types, and also has some plans for people who would like to provide habitat.

Kentucky Farm Bureau’s Mike Feldhaus did a radio interview with Jerry Butler that I still find informative about how to trap bees and relocate them.

For updates on the Zika virus in Kentucky, please see the website of the University of Kentucky’s Dr. Lee Townsend: pest.ca.uky.edu/EXT/ZIKA/1kyzika.html. This website has information about the products used for mosquito spraying.

Let miner bees be!

Miner bees (which go by several other names, including “digger bees” around here) are some of several species of ground bee that emerge this time of year. Nothing needs to be done about them. They are not aggressive, they help with pollination and soil aeration, they rarely sting, and they will go away in a few weeks after mating.

By Tammy Horn Potter

Miner bees are the earliest of the spring native bees. I’m quoting from The Bees in Your Backyard: “When there are several nest aggregations, every nest can look the same. To avoid mistaking another nest for her own, each time a bee emerges from her nest, she will spend several minutes flying in figure eights around the nest entrance from greater and greater distances in order to get a good sense of where her “door” is. Because dozens of bees may simultaneously orienting, the ground may appear to be moving!”

- The miner bee is solitary. It does not build a colony, but each will create a tunnel – one for each female to lay eggs for next year’s generation.
- They do not live through the winter.
- They do not collect and store nectar to make honey, therefore they do not attract animal pests.
- They are pollinators.
- Although they can sting, it is rare (usually when they are trapped in someone’s clothing), and, if they do, their stings rarely penetrate the skin.

Miner bees are more visible to me this week because they are trying to mate.

After the miner bee accomplishes digging a tunnel and laying her eggs, her life cycle is complete, and you will not see them the rest of the year.

The big thing to note is that pesticide companies capitalize on this when the problem goes away after mating. People who are bothered by miner bees can avoid applying pesticides if they will just wait the miner bees out for another week or two, perhaps less.

More on miner bees: https://halifax.ces.ncsu.edu/2013/04/gardening-tips-miner-bees/
Every year, the Foundation for the Preservation of Honey Bees sponsors an essay contest with 4-H. This year, the essay topic was state pollinator protection plans and how they can be improved in effectiveness. Below is an excerpt from this year’s winning essay. (Her outcome in the national contest was still pending at press time.)

By Skyler Turner, Viper, Ky.

Did you know that honey bees pollinate 70 out of the 100 crop species that feed 90 percent of the world population? Well, they do, and if things do not change, mankind along with other species will become extinct.

Some plants on Earth can be pollinated by wind but this process is very slow. Honey bees help speed up this process by carrying pollen from one plant to another collecting nectar. Extinction of honey bees will have a detrimental effect on Earth’s population.

Many factors figure into the decline of the bee population. Some of these factors are:

**Sick bees:** Bees have their own form of diseases and parasites. Often, these can weaken the bee, decreasing the bees’ ability to fight these diseases and parasites, ultimately resulting in death.

**Hungry bees/pesticide use:** Nectar from flowers is the primary source of food for bees and is their source of protein. As such, they need a reliable source of flowers to ensure proper nutrition. While bees that are kept in farms are often given supplementary feed by their keepers to keep up their health, they still require the protein found in flower nectar. If sufficient amounts of flowers and nectar are not available, bees will starve. Many industrial practices include the use of herbicides that lower the diversity of wild flowers in and around farms, thereby decreasing available food sources and adding to the decrease of the honey bee population.

**Poisoned bees:** Many flowers, nesting sites, and the general environment around bees are contaminated with chemicals, most of which are pesticides. Some chemicals such as insecticides, herbicides, and fungicides are applied to crops that bees pollinate. Once pollination occurs, bees carry the chemicals back to their hives and poison the rest of the colony.

**Shocking decline**

Per a study performed by Bee Informed, since 2015 Kentucky has experienced an annual 47.7 percent loss rate of honey bees. We can lower this rate of decline through the Pollinator Protection Plan. This plan’s major purpose is to bring awareness to the problem of declining honey bee populations. The MP3 (Pollinator Protection Plan) does not wish to eradicate all use of chemicals, but desires to lower the use of them.

The second goal of this plan is to augment the pollinators’ habitat. The state can lower the costs that are related with spraying or mowing and increase nutrition or habitats for pollinators. Toxic weeds still need to be kept delimited.

Kentucky is currently considering legislation that would certify “prescribed burn.” A prescribed burn is also known as hazard reduction burning. This burn is a technique used in forest management, farming, prairie restoration, etc. It is said that the prescribed burning will help increase the bee populations across America. Until they pass this legislation, Kentucky is looking for alternative ways to increase the habitats of honey bees and stop the decline. One way is to put bee habitats on surface mine sites. Surface mining accounts for the loss of thousands of pollen- and nectar-producing trees.

**Spreading awareness**

Kentucky state parks are taking the lead in awareness of pollination education and demonstrations. Another point in this goal is to keep protecting the nature preserves which is a key factor in the habitats of the honey bees. Kentucky currently has 63 State Nature Preserves, with a combined total of 27,000 acres. Nature preserves likewise provide superb diversity of flowers and nectar trees.

Finally, the last two goals of this plan are extension and outreach. These goals will help spread more awareness of the problem at hand. Through this plan, we are encouraged to go different places and talk about how we can help the bees. We are the bees’ voice. We must speak up for them because no one besides us will.

As a state and as a nation we have a decision to make, to either help or destroy bees. Kentucky is relying more and more on pollinators in the agricultural community. As coal declines, Kentucky faces an economic crisis that may be corrected by bringing back the honey industry that once thrived in the Bluegrass state.

This plan, if we keep following it, can help the bee population rise once again. As a state, as a nation, we can aim to mend the wrongs that we created.