Work of fuel quality inspector protects consumers

Gasoline is an important part of everyday life across the world, including in the agriculture industry, as it powers our cars, tractors and more. Mikaela Lee, Fuel Quality Inspector with our Standards Division, works hard daily to ensure that the gas we are putting in our equipment is both clean and safe.

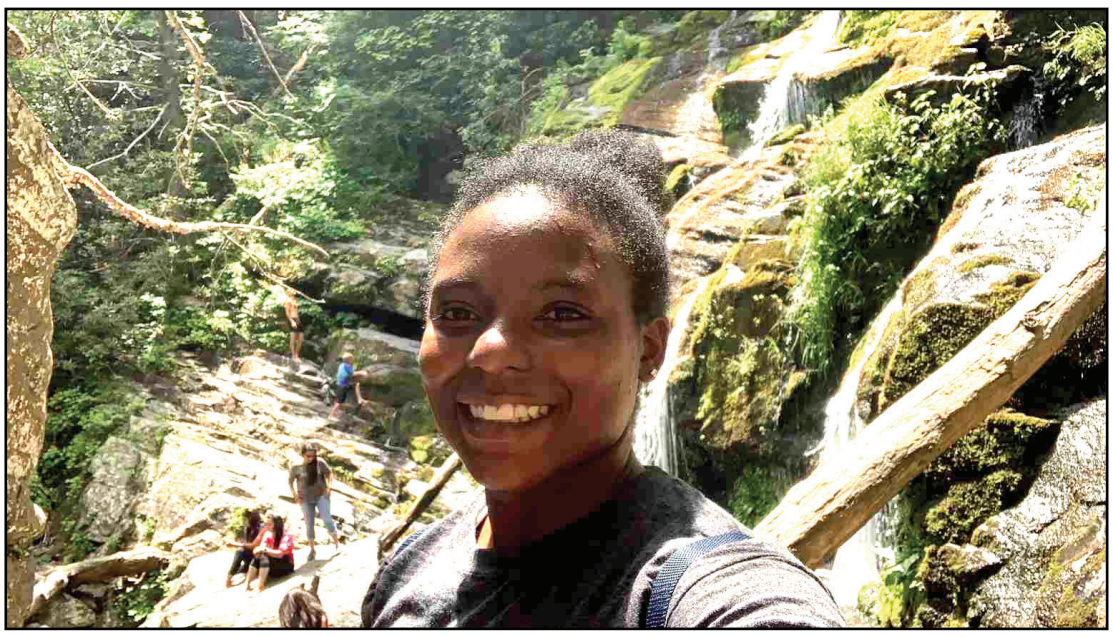
Ever since she was a little girl, Mikaela has loved being outdoors and enjoyed the rewards that agriculture can bring. "My parents had a garden when I was growing up and they taught me how to grow my own produce, which I still do to this day," she said. "Currently I have a lot of different fruits and vegetables growing in my home garden, including okra, squash, tomatoes, peppers and cucumbers."

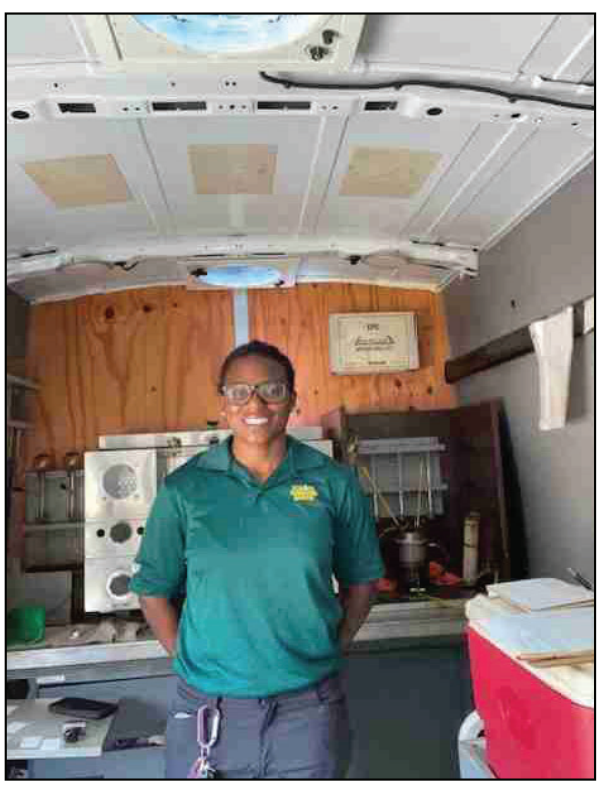
After graduating from The University of North Carolina at Pembroke with a degree in Biology, Mikaela, like most college students, took a year to find her way to a career that she loved. "I worked a couple of different jobs before coming to the department, including a temporary position at LabCorp, and although they taught me many lessons that I continue to use in my career today, neither fueled my true passion for the industry," she said. In 2017, Mikaela found her purpose when she accepted the position of Fuel Quality Inspector with the NCDA&CS Standards Division. '

On a typical day, Mikaela can be found inspecting gas stations within her assigned area, either for routine inspections or complaint follow-up. "I have ten counties under my jurisdiction that I inspect," she said. "Usually, I will test fuel at three gas stations per day, either for routine inspecting, follow-up visits or complaint calls." Since she has been with the division for five years now, many of the station managers recognize Mikaela when she arrives and trust her to do her job. "When I first started, I would have to go in and introduce myself and explain what I needed to do," she said, "but now I have established such a rapport with these station managers that they know who I am and they trust me to do my job, which benefits both them and their customers."

At the station, Mikaela collects five samples of fuel from five random gas pumps on-site. These samples always include each gas type, including diesel and flex fuel, so that they are all deemed safe for consumers. "First, I will check each nozzle that I am testing to ensure there is no water inside it or the tank because it can break down a vehicle before it even leaves the station," she said, "then I collect my samples and the lab will test them for a variety of things, including ethanol and sediment." Inspectors are allowed to approve every test in the field with the exception of octane, which is sent to the lab for testing once a week by each inspector. Once on-site testing results are received, Mikaela will address the manager to let them know whether their fuel passed inspection. If not, a plan is determined to fix the issue and a follow up visit is scheduled to ensure compliance. "Our main focus is consumer safety," she said. "We are a barrier to protect the people from gas that could damage their vehicles and ultimately cause them harm. We take our work seriously because that's what the citizens of this state deserve."

Although she loves being outside on a regular basis, Mikaela's favorite part of the job is knowing she is making an impact on the agriculture industry and the state of North Carolina as a whole. "Agriculture is a great industry to work in because people truly invest in and care about you here," she said. "I am really proud of the impact that our team has on the industry and the overall community. It's an honor to be a part of it."





Mikaela Lee, a fuel quality inspector with the Standards Division, helps ensure customers get what they pay for at the gas pump. She inspects gas pumps in 10 counties on a routine basis andin response to consumer complaints.

When she is not working, Mikaela can be found enjoying the outdoors either running or playing ultimate frisbee. She also works a part-time job at Fleet Feet, where she helps people find the perfect shoe for their indoor and outdoor needs. Join us in thanking Mikaela for all of her hard work ensuring our cars and farming equipment have safe and high-quality fuel to run on!

Mothballs should not be used to repel snakes, insects, wildlife

With the warm weather of summer, you may have seen a few extra critters around your yard, and that may have brought back up some bad advice on how to deal with them – especially snakes. Even for wildlife lovers, snakes are not always welcomed with open arms, but contrary to pervasive wives' tales, mothballs shouldn't be put out in the open to keep away snakes, general insects or other wildlife. Mothballs are intended to be put in closed containers (where vapors don't easily escape) to keep away one thing – moths. Using mothballs in a way not specified by the label is not only illegal, but can harm people, pets, or the environment.

"When you put mothballs out in the open to repel snakes or something else, pets, wildlife, and kids – neighborhood kids or your own kids – can easily get to them. Very often mothballs look like little pieces of candy. Some of them are very brightly colored," said Beth Dittman, an environmental toxicologist for the NCDA&CS Structural Pest Control and Pesticides Division. "It only takes ingesting one mothball to poison a kid or pet, and so it's a big concern."

Year after year, the division receives numerous calls about the misuse of mothballs.

"If pets or kids get their hands on these mothballs, they can be incredibly toxic. People aren't aware of the dangers," Dittman said. "Even in local Facebook groups, people will say 'I have snakes in my yard. What do I do about it?' and inevitably someone suggests mothballs. While in most cases someone else will reply saying not to use mothballs because they are dangerous and illegal to use outdoors, misinformation is out there."

If you want to rid your yard of snakes or other pests, look for products that are labeled and approved for outdoor use, contact your local N.C. Cooperative Extension Service to discuss potential steps for pest control, and keep your yard clear of clutter that may provide a suitable habitat for snakes.

Mothballs commonly are made from two pesticide active ingredients – naphthalene and paradichlorobenzene. Naphthalene is commercially used in repellent and insecticide products and can be found in nature when things burn, for example in cigarette smoke, car exhaust and forest fire smoke. Paradichlorobenzene is used as an insecticide and is also included in odor reduction products like urinal cakes and trash can deodorant blocks.

"In addition to being toxic if eaten, mothballs are a fumigant that produce a nuisance odor and are constantly releasing gases," Dittman said. "So if you use mothballs in the traditional way, when you open up that container where you stored your clothes, you want to do it in a space that's really well ventilated because you don't want to be breathing in those fumes yourself."

Just as with any other pesticide, "the label is the law" Dittman explained. In North Carolina, it is a violation of pesticide laws and regulations to violate a pesticide's label. The label found on the outside of a mothball product's packaging not only provides instructions for use and discusses hazards if the product is inhaled or swallowed, but also has statements like, 'Do not place in areas accessible to children'. Statements like these are enforced by the NCDA&CS Structural Pest Control and Pesticides Division. So, if you or your neighbor use mothballs outdoors, this would be considered illegal use of a pesticide and the division has grounds to take action.

"It's important to remember that 'The Label is the Law'. If someone is using mothballs incorrectly and it creates some sort of risk to human health or environmental health or both, the department can take action against them. It is so important for anybody using any pesticide product to make sure that they're following the label in terms of how it's used to reduce risks to human and environmental health," Dittman explained.

If you're interested in more details about mothball use, plus resources about health effects, chemical properties and regulation, the National Pesticide Information Center compiled a "one-sheet" on the topic that can be found online at http://npic.orst.edu/ingred/ptype/mothball/regulation.html.

As the Division's toxicologist, Dittman's job is to assist the division in answering questions related to the risks of using pesticides. Pesticides are defined as any product or mixture of products intended to kill, repel, deter, or mitigate a pest and includes herbicides, insecticides, fungicides, and so on. Dittman also oversees the division's programs that work to reduce the risk of environmental releases of pesticides including the Pesticide Disposal Assistance Program and the Agricultural Pesticide Container Recycling Program.