

Conference Proceedings

Maryland Agricultural Educators Technical Update & Professional Development Conference
Hosted by Harford Technical High School Bel Air, MD July 9-11, 2018

Monday, July 9, 2018

Workshop: Make and Take Welding and Fabrications

Presenter: Mr. Doug Hering, Welding Instructor at Frederick Career and Tech Center

Mr. William Fuentes, Welding Instructor at Harford Technical High School

Recorder: Mr. Michael Harrington, Brunswick High School

The main objectives for this workshop was to introduce participants to the “art” of welding, showcase various welding projects students could possibly make in their own school and each participant was given the opportunity to create their own metal flower pot holder to take home.

The instructors demonstrated various student projects, review the pros and cons of each project. Then participants used the MIG welder to practice different angles in holding a welding gun. The beginner participants made their own flower pot holder, where the advanced welders of the workshop were able to make a larger holder.

One of the most memorable lesson within the workshop was from Mr. Hering, who shared how he presents the fundamentals of welding using the CLAM approach, C-Current, L-Length, A-Angle of the electrode, M-Manipulation, S-Speed of travel. This enables students to grasp the concept and remember the critical guidelines of welding.

This workshop will be beneficial for all Agricultural Mechanics Programs, particularly Welding Curriculum.

Workshop: Make and Take Horticulture and Floral Designs

Presenter: Mrs. Dene’ Flack, Floral Design/Landscape Management Instructor at Harford Technical High School

Recorder: Mrs. Dene’ Flack, Harford Technical High School

This was a hands on practical applications workshop, covering everything from practical and affordable floral designs to horticultural management in aiding in retail sales and service. Each participant designed their own wrist corsage using no wires and a wedding bouquet with no holder, hand tied and using different textures of flowers and greens to enhance the design. All applications were done to cut down on cost and labor, while increasing design appeal. Participants were also encouraged to create a flower pot holder display that they all could take back to their classrooms to improve customer marketing practices.

The presenter reviewed many strategies to locate affordable or even free materials for teaching floral design, how to locate businesses in any given area and how easy it is to change things up to make things more interesting for the students and at the same time learn how to market their products.

This workshop will be a huge benefit to all teachers in the Floral Design and Greenhouse Operation Programs. Even if not teaching these areas, the organizational skills learned with the workshop will be beneficial in other areas of Ag. Education.

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Workshop: Professional Development Equine Assisted Learning (EAGALA)

Presenter: Mrs. Aimee Densmore & Ms. Trish Uppercue at North Harford High School

Recorder: Mrs. Sara Seiser, Middletown High School

The Equine Assisted Growth and Learning Model was adopted by the school to enhance their Equine Studies, allowing students to develop their leadership skills and team building through the use of horse groundwork. The presenters made it clear that this is a program that gives hands on learning to many different groups of people for many reasons. The school has been using this model and has been able to venture out within the county helping others to learn through the equine program.

During the demonstrations, they were able to explain how they got the program started and how they utilize it within their ag program and in the community to build leadership skills, team building, mediation, problem solving, grief counseling and even reducing anxiety behaviors.

This program can easily be implemented within an animal science program or even to enhance leadership within their general ag program and FFA Chapter.

Workshop: Hole-y Cow- A lesson on ruminant digestion

Presenter: Mrs. Dana Morton at North Harford High School

Recorder: Ms. Jamie Snider, Hancock Middle/Sr High School

The objective of the workshop was to explore the inner living organisms found in a ruminant stomach. This hands-on experience allowed teachers to gain a better insight into the importance of best practices in feeding and caring for cattle. Gracie, the resident Holstein cow, allowed participants to take samples from her fistula ruminant compartment of her stomach. Each person then identified and examined protozoa found in the sample under a microscope.

The workshop also included: a tour of the barn area, discussion on safety and biosecurity around cattle. The group then received an overview of the functions of the four-compartment stomach system. The group learned that each animal has it's own unique set of bacteria and other organisms present in a ruminant animal.

By studying a live culture taken from a specimen, the teachers will take knowledge gained back to their own students on the importance of proper nutrition for increased performance of production animals.

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Workshop: Proper Animal Handling and Showing

Presenter: Five students of the Agricultural Program at North Harford High School

Recorder: Mrs. Terry Nuwer, Dorchester Career & Tech Center

The students took turns in demonstrating the proper procedures and safe handling of various types of farm animals. After reviewing all the necessary tools and equipment, each student demonstrated how to properly perform in a showing, such as at a county fair for competitions. The teachers were then allowed to practice showing a farm animal of their choices in order to learn how to show a particular animal or brush up on their showmanship skills.

Along with showing animals, the teachers learned how the students prepared and trained for their shows. They examined the different feed rations, how to pack for a show and how organization plays a key role in their showing success. It was apparent that those students work very hard in achieving a close relationship with not only the animals but with each other.

The animal handling and showing workshop demonstrated tremendous teamwork and leadership that can be adapted to all areas within agricultural education. Note: All work must be supervised by a responsible teacher or mentor.

Workshop: Capstone and Agriscience Fair Projects

Presenter: Mr. Greg Murrell at North Harford High School

Recorder: Ms. Hannah Schantz, Conference Intern Maryland Agricultural Education Foundation

The teachers explored the methods of technical writing and research techniques used in participating in a senior agriculture capstone projects and the National FFA Agriscience Fair competitions.

The group reviewed several examples that were generated by actual capstone projects and were able to critique them. This enabled a better understanding of what is expected on a senior capstone project. The criteria can be adapted to fit any curriculum of choice. Note: best if used as an exit project within a comprehensive program of study.

Along with the capstone, the Agriscience Fair projects were discussed. The National FFA has redesigned the divisions and categories making it much more open for student achievement on the state and national level of competition. The state event has been moved to State Spring Judging to allow for ease of commitment among participants. They can even compete in a CDE and participate in the Agriscience Fair on the same day.

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Workshop: What's the Buzz?

Presenter: Mrs. Laura O'Leary at North Harford High School

Recorder: Mr. Mark Kather, Western School of Technology

What's the Buzz was a workshop designed to address the importance of bees and how to maintain a healthy colony to promote sound health and contentment. The major activities within the workshop included: how to maintain the hive properly and to promote a healthy habitat, valuable resources on the web and were given a scientific article on solitary bee management.

The presenter got into the bee gear and actually handled a tray of honey so each participant could inspect how honey is made. She even used the smoker to calm the bees.

Solitary bees are native a given area and the health and wellbeing of their colony can be promoted on any site using available resources.

Workshop: Farm to School Program

Presenter: Ms. Erika Edwards at North Harford High School

Recorder: Mrs. Lori Mayhew, Damascus High School

The farm to school initiative is designed to create an awareness of good quality local grown food and to provide a service to the community. The North Harford Agriculture Department has been active in growing their own produce in their onsite greenhouse to be utilized in the school lunch program. It has been very successful for the past few years and hope to increase production with a newly renovated greenhouse.

The participants received information about the whole process of farm to school and grant information to support conducting their own program. They also discussed the essential food service requirements of their local county government in growing, handling and harvesting procedures. As part of the workshop, they conducted a nutrient Level lab activity.

The Farm to School program can be designed to fit into any scope of investment opportunity within any school system with the permission of the local school district and local government agencies.

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Workshop: Hawks Hill Farm Tour

Presenter: Various workers at the farm

Recorder: Mr. Tom Mazzone, Clear Spring High School

Hawks Hill Farm is a 4th generation family operation owned and operated by the Allen Galbreath family. A tour was given to view the scope of the ever changing production to keep up with the consumer demands and interests within Harford County, MD. The farm used to be a large scaled dairy operation and was not able to make ends meet. With lots of courage, the family went to making cheese and ice cream from their milk to operate a market on the farm. From there they have created the first farm in the area to grow their own specialty crops to sustain their family farm. Participants got to walk out into the fields and learn how to harvest various crops by hand and viewed the differences of varieties right in the field.

Agritourism is a major part of their farming success. By growing pumpkins and other produce, it creates a more well-rounded attraction for parties, weddings and other gatherings. Those activities bring in more revenue for the family.

The teachers learned how to run different types of trellis systems for plants. This can be applied to many types of plant production in the classroom.

Tuesday, July 10, 2018

Workshop: Bowman's Butcher Shop Tour

Presenter: Ms. Alice Bowman, Owner and Operator

Recorder: Ms. Kristyn Cales, Hereford Middle School

The owner of Bowman's Butcher Shop allowed the group to tour a certified USDA approved wholesale meat processing facility. With close supervision, the group was introduced to all of the many safety and sanitation procedures that are mandated in operating such a plant. Then she proceeded to conduct a tour of the various stages that take place from slaughtering to processing and sale of livestock and deer.

This was a rare tour that many people could never get the opportunity see how meat processing works. Since the group was comprised of agricultural educations, the owner approved to conduct the tour.

Being able to experience the butcher shop will greatly enhance teacher knowledge on the wholesale side of meat evaluation, safety and sanitation practices that go into meat processing. It will be valuable information that teachers will be able to share with their students in studying animal science.

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Workshop: Broom's Bloom Dairy Farm Tour

Presenter: Ms. Arielle Dallam

Recorder: Ms. Amanda Farmer, MATA College Scholar

The mission of the tour was to showcase a local dairy farm that also operates a working farmers market, making their own cheese and ice cream, and allow other local farmers to sell their own meat, eggs and many other agricultural products. The tour emphasized the importance of working together in marketing and advertising to gain a greater profit margin for all.

The group got to tour a fully operational dairy farm, inspecting the safety and sanitation practices in the milking parlor and milk holding room. They learned about the strict laws all dairy farmers must follow in producing fresh milk that is healthy and safe to consume. The group got to see how they manage their cows closely with robotic milking system and computerized management program. Thus making their farm very efficient and productive. The guide explained how they got started and perfected the delicious ice cream and cheese products they offer. She explained that to build the clientele, many educational programs were put into place to bring the consumer to the farm. Their efforts paid off big time as they are always busy handling customers that frequent them regularly and bring their friends and family.

This tour closely relates to the animal science curriculum giving them hands on learning to see for themselves the husbandry, science, marketing and business skills needed to conduct an agri-tourism business on the farm. The knowledge gained within the tour will greatly support the area of Milk Quality and Products Career Development Event within the FFA.

Workshop: Meats Evaluation

Presenter: Mr. Richard Stonebraker, Frederick High School, Drew Cashman Clemens Food Group

Recorder: Mr. Tom Hawthorne, Linganore High School

The teachers who toured the butcher shop continued their education with a workshop on the National FFA Meats Evaluation Career Development Event. The teachers were introduced to the major components of the event by the Superintendent and industry volunteer.

The participants got to learn how to complete the scantron by using the meat and yield grade charts. They conducted a carcass grading and retail cut classes for the group to gain hands on learning by doing part of the event. They demonstrated many of the resources available for teachers to utilize in training students to evaluate meat cuts, processing, packaging and marketing.

This workshop was very informative to equip teachers with the proper tools to teach meat evaluation in their classes and train a meats evaluation team for competition.

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Workshop: Milk Quality and Products

Presenter: Ms. Laura Ramsburg

Recorder: Ms. Makayla Stockman, MATA College Scholar

The state superintendent of the Milk Quality CDE conducted the workshop. Her purpose was to help teachers train their students in the art and science of tasting and identifying different sample of fresh milk and cheeses. The teachers who toured the dairy farm and market, continued their studies in milk quality workshop.

The group were given various samples of possible milk defects, and different percentages of butterfat in milk to evaluate and place their finding onto the official scantron used in the event. Then they identified several cheese samples based on taste, and physical characteristics. The presenter took great efforts in setting up the workshop just as they do in the real competition, giving teachers the best opportunity to learn properly from the expert. She then went over tricks of the trade to better prepare everyone to teach their students the right way of handling products.

This workshop will assist teachers greatly in preparing their students in class and for competition in Milk Quality CDE on the state and possible national competitions.

Workshop: Best Practices in the Classroom

Presenter: Several teachers from the conference

Recorder: Ms. Jodi Callahan, Caroline County High School

This was a time for any teacher to share a "Best Practice" they have used successfully within their classroom with their peers. The presenters ranged from beginning to advanced teaching experience. Each person took a turn at the podium to share their practice. That way everyone could gain from their presentation. After each presentation, there were a few moments to answer questions from the audience.

The following teachers presented a best practice:

Dene' Flack- The Flower Club at her school, where faculty and staff of the school can enroll in the club to receive a fresh floral arrangement made by her horticulture students each month of the school year. The enrollment is paid at the beginning of the school year.

Lori Mayhew- She makes floral arrangements using Flower boxes. This is an easy first starter project to have students gain confidence in their work. She also shared a lesson on addressing an envelope worksheet, which helps within a floral class.

Erika Edwards- Demonstrated how she conducts an SAE Packet for her students to use in order to better understand the supervised agriculture experience program, which is a major part of Agricultural Education.

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Sarah Shriner- She shared how she awards 15% of her grades for leadership activities within her classroom. She strives to have at least 4 activities throughout the marking period.

Terry Nuwer- Uses careful and purposeful methods in searching for particular websites for agriculture and related field so study to be sure they are legitimate cites. She also shared her chore chart used in the shop area also how she uses random numbers as not to single out students.

Joe Linthicum- He has been successful in pairing up students by using numbered ping pong balls. It is a quick and fun way of grouping students in a class.

Doug Hering- In order to gain control of the cell phones in his welding class, he uses a bell system notifying them when it's time to collect them at the beginning of class. That way not wasting time within the lesson.

Dr. Amy Green- Educational Director for the Chesapeake Bay Foundation announced that a new teacher training will be held next summer for agricultural educator's to learn more about how agriculture can partner with CBF to educate others on the importance of preserving the Chesapeake Bay.

Teachers were able to hear about new ideas they may be able to implement into their classrooms for the betterment of their students learning.

Workshop: Pedagogy Jigsaws (4)

Four workshops were conducted simultaneously, then rotated to give each participant the ability to visit each workshop.

Recorder: Mrs. Dene' Flack, Harford Technical High School

1. Graphic Organizers

Presenter: Becky Mercer, Special Educator at Harford Technical

The purpose of the workshop was to show how tools and useful organizers can greatly enhance student comprehension by connecting subject matter into a visual experience. Sample handouts were presented and many of the teachers actually completed their own organizers. These are specifically useful for special need students but also all students gain better comprehension of subject matter with having their own graphic.

2. Pipetting Practice Lab

Presenter: Mrs. Diane Safar, Winters Mill High School

Diane conducted the actual lab, giving teachers the opportunity of practicing and building their skills in measuring out proper amounts with a micropipette apparatus that is commonly used in CASE Biotech classes. This lesson taught patience and how important practicing is for gaining perfection in the lab. A simple but very important lesson for all to master.

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3. Tasty Taxonomy

Presenter: Ms. Jodi Callahan, Caroline County High School

This was a clever way of having participants engaged while learning how plants and animals are classified. Each group were given a Ziploc bag full of many different types of food and candy. Their job was to sort by using several different protocols. This lesson will be useful in any plant or animal science class.

4. Effective laboratory learning through meaningful facilitating

Presenter: Mr. Aaron Geiman, Westminster High School

He allowed teachers to work through the "Trident" management using a detailed handout. He reviewed the space, the materials and the learners and how each are vital in running a proper CASE laboratory system. Pre-reading is just as important as the actual lesson. He demonstrated various ways of grouping students, and finished with effective ways of holding discussion groups and drawing conclusions. Valuable materials that everyone can gain helpful hints in teaching more effectively and purposefully.

Wednesday, July 11, 2018

Workshop: Pesticide Certification Updates from Maryland Department of Agriculture

Presenter: Mr. Russell Noratel, Coordinator

Recorder: Mrs. Clare Linfield, Carroll County Career and Tech Center

Russell reviewed any changes in any pesticide laws and procedures in handling, applying and storing of chemicals safely. New manuals may be found at www.MDA.maryland.gov. Recertification classes can be done online every three years. The law has been changed from 16 years of age to for certification to 18 years of age. Russell stressed the importance of accurate and timely record keeping. Be sure to keep records of alternative treatment methods to comply with school's IPM regulations as well as pesticide application records.

Being a certificated pesticide applicator is mandatory for any agriculture teacher to handle any chemical that comes with a license to administer and store. This recertification is vital for any ag program that handles chemicals for plant or animal science program.

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Workshop: Gardening for Pollinators

Presenter: Ms. Devra Kitterman, retired professional landscaper, current bee keeper

Recorder: Mrs. Clare Linfield, Carroll County Career and Tech Center

The goal of the workshop was to bring attention on the importance of gardening for promoting native pollinators. Thus, minimizing the use of commercial pesticides and increasing the planting of compatible plants to create a more harmonious flower gardens and lawns.

During her discussion, it was brought up the importance of not having a perfect lawn. That it is ok to have weeds and differences in shades of green for the grass. The general public use way too much chemicals and fertilizers. A perfect lawn is at the expense of killing off many species that would normally live in a yard environment. A detailed list of local preferred plants for pollinators and habitat improvements were presented to each participant at the workshop.

This workshop was very valuable to share with students to encourage them to create pollinator plantings at school and at home. It could be a major part of teaching a lesson on improving our environment for the future. The group proceeded to create their own Bee House to take home and implement into their own yard. This could also be an easy lesson to share with students as all the materials were things easily found in and around the home.

2018-19 Newly elected officers for MATA at the conclusion of the conference:

Past President	Mike Harrington	Brunswick High School
President	Lori Mayhew	Damascus High School
President-Elect	Tom Hawthorne	Linganore High School
Secretary	Quinn Cashell	Boonsboro High School
Reporter	Thomas Mazzone	Clear Spring High School
Member Chair	Bridget Nicholson	Manchester Valley High School
Exec Treasurer	Roy Walls	UMCP Institute of Applied Agriculture

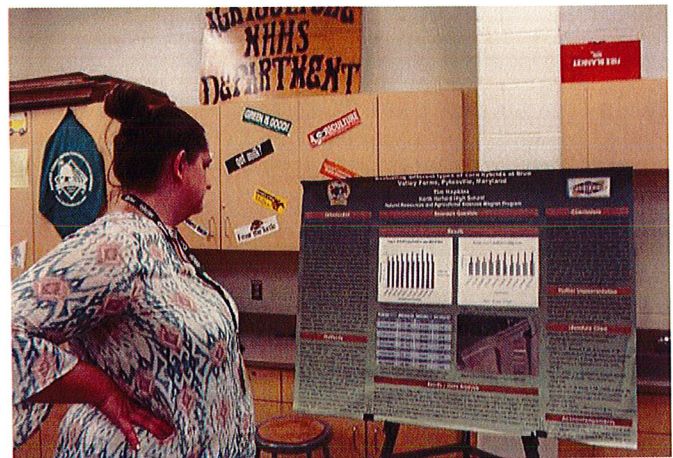
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MD Ag Educators Conference July 9-11, 2018 Hosted by Harford Technical High School													
First	Last	School	Full/Comm	Mon AM Workshops		Mon PM NHHS	Hawks Hill Tour/WKSP	Tues. Workshops		Best Practices & Pedagogy	Pest. Update Pollinators	Total Hours	
				Hort.	Welding			Milk Qual. Meats Eval.	Meats Eval.				
Brittany	Bowman	South Carroll	Full	2.5	N/A	3	1.25	N/A	2.75	2.5	3	15	
Kristyn	Cales	Hereford Midd	Full	2.5	N/A	3	1.25	N/A	2.75	2.5	3	15	
Jodi	Callahan	Caroline County	Full	N/A	2.5	3	1.25	N/A	2.75	2.5	3	15	
Aimee	Densmore	North Harford	Full Comm	2.5	N/A	3	1.25	2.75	N/A	2.5	3	15	
Erika	Edwards	North Harford	Full Comm	2.5	N/A	3	1.25	2.75	N/A	2.5	3	15	
Amanda	Farmer	College Student	Full	N/A	2.5	3	1.25	2.75	N/A	2.5	3	15	
Dene'	Flack	Harford Tech	Full Comm	2.5	N/A	3	1.25	N/A	2.75	2.5	3	15	
Aaron	Geiman	Westminster High	Full	N/A	2.5	3	1.25	N/A	2.75	2.5	3	15	
Mike	Harrington	Brunswick High	Full	N/A	2.5	3	1.25	N/A	2.75	2.5	3	15	
Thomas	Hawthorn	Linganore High	Full	N/A	2.5	3	1.25	N/A	2.75	2.5	3	15	
Doug	Hering	Frederick CTC	Full	N/A	2.5	3	1.25	N/A	2.75	2.5	3	15	
Mark	Kather	Western Tech	Full Comm	2.5	N/A	3	1.25	2.75	N/A	2.5	3	15	
Lori	Mayhew	Damascus High	Full	2.5	N/A	3	1.25	2.75	N/A	2.5	3	15	
Thomas	Mazzone	Clear Spring High	Full	N/A	2.5	3	1.25	N/A	2.75	2.5	3	15	
Nicole	Michol	College Student	Full	N/A	2.5	3	1.25	N/A	2.75	2.5	3	15	
Terry	Nuwer	Dorchester CTC	Full	2.5	N/A	3	1.25	N/A	2.75	2.5	3	15	
Diane	Safar	Winters Mill High	Full	2.5	N/A	3	1.25	N/A	2.75	2.5	3	15	
Sara	Seiser	Middletown High	Full	2.5	N/A	3	1.25	N/A	2.75	2.5	3	15	
Jamie	Snider	Hancock Mid/High	Full	2.5	N/A	3	1.25	N/A	2.75	2.5	3	15	
Mikayla	Stockman	College Student	Full	2.5	N/A	3	1.25	2.75	N/A	2.5	3	15	
Kelcey	Trewin	College Student	Full	2.5	N/A	3	1.25	2.75	N/A	2.5	3	15	
Sarah	Shriner	Middletown High	Full	2.5	N/A	0	0	N/A	2.75	2.5	3	10.75	
Terrie	Shank	MAEF	Full	2.5	N/A	0	0	2.75	N/A	0	3	8.25	
Jane	Howe	Highland School	Mon.	2.5	N/A	3	1.25	N/A	N/A	N/A	N/A	6.75	
Elizabeth	Rohrer	Clear Spring High	Full	2.5	N/A	3	1.25	N/A	0	0	0	6.75	
Peggy	Eppig	MAEF	Mon, Wed	2.5	N/A	0	0	N/A	N/A	N/A	3	5.5	
Stacy	Eckels	Southern High	Tues.	N/A	N/A	N/A	0	N/A	2.75	2.5	N/A	5.25	
Jessica	Flores	Worcester Tech	Tues.	N/A	N/A	N/A	0	N/A	2.75	2.5	N/A	5.25	
Diane	Herndon	Frederick CTC	Weds.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3	3	
Clare	Linfield	Carroll Co. CTC	Weds.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3	3	
Greg	Murrell	North Harford	Full Comm	0	N/A	3	0	N/A	0	0	0	3	
Jerry	Kelley	Parkside High	Mon.	0	N/A	0	0	N/A	N/A	N/A	N/A	0	
Tonya	Meadows	Boonsboro Midd	Full	0	N/A	0	0	N/A	0	0	0	0	

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