AGSPLORATION:
THE SCIENCE OF MARYLAND AGRICULTURE
2013 TEACHER TRAININGS

UNIVERSITY OF
MARYLAND
EXTENSION
Solutions in your community

The University of Maryland Extension AGsploration team will be hosting a series of teacher in-services during the 2012-2013 school year. Teachers and other youth educators are invited to attend these one-day seminars to receive training, curriculum, and teaching materials in order to implement the AGsploration program in their own classrooms.

A three-time national award-winning program, AGsploration is a science-based curriculum designed for middle school students. AGsploration lessons allow students to explore the relationships between agriculture, the environment, and their health through engaging hands-on activities. All twenty-two lessons are aligned with the Maryland state standards for science and health. While designed for classroom use, the lessons can easily be adapted for use by after school programs or community organizations. Please join us for this training to learn about AGsploration: The Science of Maryland Agriculture and how you can utilize in your school programming. All participants will gain hands-on experience with AGsploration lessons and will be provided with teaching materials and curriculum to support the lessons they received training for. Participants will attend one of four tracks 1) animal agriculture, 2) plant agriculture, 3) agriculture and the environment, and 4) agricultural technology.

SCHEDULE/LOCATIONS

at 9:00 a.m. The program will begin promptly at 9:15 a.m. and will conclude at 3:30 p.m. Dates, locations, and registration deadlines are below.

Training Date	Location	Registration Deadline
January 21, 2013	Bay View Elementary School (North East, MD)	January 7, 2013
February 18, 2013	Chesapeake College (Wye Mills, MD)	February 4, 2013
March 22, 2013	Montgomery County Extension Office (Derwood, MD)	March 8, 2013
April 12, 2013	Carroll County Extension Office (Westminster, MD)	March 29, 2013
May 6, 2013	Southern MD – Location TBD	April 22, 2013
June 17, 2013	Washington County Extension Office (Boonsboro, MD)	June 3, 2013

REGISTRATION

Registration is free, but space is limited so send in this form early! Registration can also be completed online at agnr.umd.edu/agsploration/training. Participants will receive hard and electronic copies of the AGsploration curriculum, complete materials to teach selected lessons, and a hot lunch.

QUESTIONS

For more details please visit https://agnr.umd.edu/agsploration/training or contact Sara BhaduriHauck at sbh@umd.edu or (410) 638-3255.

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AGSPLORATION:
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2013 TEACHER TRAININGS
REGISTRATION FORM

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Please send completed registration forms to AGsploration Teacher Trainings, Harford County Extension Office, PO Box 663, Forest Hill, MD 21050 or FAX to (410) 638-3053 by the deadline for the location you are registering for.

PARTICIPANT INFORMATION (PLEASE TYPE OR PRINT CLEARLY)

Name: _____   **School/Organization:** _____

Title: _____   **Fax Number:** _____

School Phone # _____   **Email Address:** _____

Personal Phone # _____

Mailing Address: _____

Please indicate if you have a meal preference or any special needs:

☐ **I prefer a vegetarian lunch**   ☐ **I have special needs (you will be contacted)**

TRAINING DATES AND TRACKS

Training Dates / Deadlines (Please mark which training you are registering for)

	Date	Location	Deadline
_____	January 21, 2013	Bay View Elementary School (North East, MD)	January 7, 2013
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Track Selection (Please mark a 1st and 2nd choice)   (*Lessons covered for each track on page 3*)

_____ **Animal Agriculture**   _____ **Agriculture and the Environment**

_____ **Plant Agriculture**   _____ **Agricultural Technology**

ANIMAL AGRICULTURE
1. *Food, Fiber, and More from Animals*
Learn about the varied uses of animal byproducts and co-products, focusing on agricultural animals produced in Maryland.
2. *Wild and Wooly*
Learn about sheep and goats and the various products derived from them.
3. *Moo Who?*
Differentiate between beef and dairy cattle (both *Bos tarus*) and observe how each type evolved over time.
4. *Animal Digestion*
Compare and contrast the digestive systems of ruminant (4 compartment stomach) and monogastric (single stomach) animals, observing differences and similarities which can be used to infer the degree of relatedness among organisms.
5. *Burgers, Chops and Steaks: Looking at Beef, Pork and Lamb*
Learn about meat consumed by humans and the role meat plays as an agricultural commodity in human diets and Maryland's economy.
6. *Milk in Motion: A Dynamic Dairy Experiment*
Learn about the dairy industry and dairy products, as well as the properties of milk.
7. *Poultry: Feed Basics for a Growing Bird*
Learn about the effects of nutrition on broiler chicken growth and processing and simulate the mixing of poultry feed using animal feed ratios.
8. *Horses and Evolution*
Understand how horses evolved over time and compare and contrast how different types of horses are used today.

PLANT AGRICULTURE
9. *It's Just Dirt*
Learn about soil a natural resource, what its components are, how it is used and whether it is renewable.
10. *Send in the Sun: A Look at Photosynthesis*
Observe the results of photosynthesis and lack of photosynthesis over an extended period of time.
11. *Grains: The Whole Story*
Understand the important food and non-food uses of the major grains grown in Maryland.
12. *The Amazing Soybean*
Explain the role of soybeans and other legumes in making nitrogen available in a form that can be used by plants, animals, and humans and understand why plants such as grasses benefit from legumes for growth.
13. *Buy Close to Home, Eat Locally Grown*
Simulate a farmer's market to learn about the benefits of locally-grown food.

AGRICULTURE AND THE ENVIRONMENT
14. *Food for Thought: Agriculture in the Chesapeake Bay Watershed*
Develop an understanding of size and importance of the Chesapeake Bay watershed and recognize Maryland agriculture as integral to human life in the watershed.
15. *Do You Get My (Non)Point? Modeling Pollution in a Watershed*
Develop an understanding of ways in which the activities of humans can cause nonpoint pollution within a watershed.
16. *Conservation Choices: How Farmers and Developers Protect the Bay*
Understand how Maryland farmers and developers can use conservation techniques to reduce environmental damage.
17. *Who Lives Here? Species of the Bay Region and Watershed*
Identify numerous species, including birds, and other wildlife, living in the bay and its tributaries, and learn how these species positively and/or negatively affect our bay.

AGRICULTURAL TECHNOLOGY
18. *Persistent Pests*
Simulate the effects of pesticides on an insect population and observe how the population changes over time.
19. *Something Fishy: Aquaculture in Maryland*
Understand that harvest rates of aquatic organisms by humans that are higher than reproductive rates can lead to a population's decline and realize the importance of aquaculture's role in providing a sustainable seafood supply for an increasing human population in the Chesapeake Bay watershed.
20. *What's in Your Genes?*
Learn how to predict plant and animal offspring traits or characteristics using genetics.
21. *Food Safety is for Everyone*
Understand causes of foodborne illnesses and how to prevent them as well as simulate the growth of bacterial colonies and learn proper hand washing techniques.
22. *Down and Dirty with Biosecurity*
Research biosecurity strategies and develop a plan to promote biosecurity at a hypothetical livestock production facility.