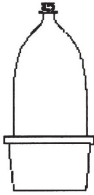


Conference Schedule - March 10th, 2012



- 8:00 a.m.** **Registration**, coffee, tea and breakfast foods, exhibits
- 8:30 - 9:00** **Introductions & Welcome Presentation**
- 9:00 - 10:10** **Workshop Session 1**
(Concurrent sessions, choose one of six workshops)

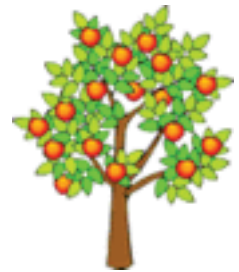
Workshop 1: Make a Mini-Greenhouse Terrarium



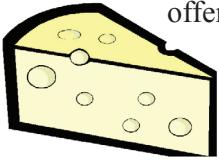
In this hands-on workshop each participant will make their own mini-greenhouse from terrarium from a two-liter soda bottle. Then plant the planter and review a number of propagation activities that you can try in the classroom using the soda bottle planter. Instructor **Jen Werner** from **Springfield Technical Community College** will bring all the materials and will show you how to make the mini-greenhouse providing activities to enhance your curriculum. Appropriate for elementary and middle grades. Appropriate for all grades.
Instructor: Jennifer Werner, Professor at Springfield Technical Community College

Workshop 2: Edible Landscaping for the Schoolyard

Meet a variety of trees, shrubs, groundcovers and vines that are edible and also offer interesting ornamental qualities that are sure to add to your school landscape. In his presentation, **Warren Leach**, horticulturist, garden designer and co-owner of **Tranquil Lake Nursery** in **Rehoboth** will show images and discuss a diverse variety of plants that are easy to grow, edible for humans and also offer attractive flowers, foliage, seed heads, barks and twigs during the school year. Plant list provided. Appropriate for all grades. This workshop will be repeated again in Session 4.
Instructor: Warren Leach, landscape horticulturist, Tranquil Lake Nursery, Rehoboth



Workshop 3: Making Cheese in the Classroom



Dairy Farmers, **Marjorie Cooper** and nephew **James** from **Coopers' Hilltop Dairy Farm** in **Rochdale** will offer an overview of the dairy industry in Massachusetts today. Learn about the life cycle of the cow, milking, milk products, pricing and direct marketing. The making of cheese is a simple process that can be easily adapted to the classroom. Marjorie and James will demonstrate making cheese from the milk of the cow. They will also provide resources including information on where to purchase cheese-making kits. Appropriate for elementary and middle school.
Instructors: Marjorie and James Cooper, Coopers' Hilltop Dairy Farm

Workshop 4: Basic Beekeeping and the Fascination Life of *Apis mellifera*

Did you know that bees are responsible for one-third of the food we eat? The prevalence of Colony Collapse Disorder in the last few years has caused scientists, politicians, farmers and the public to delve deeper into the life of *Apis mellifera*, the honey bee. In this session, Education Consultant and **Beekeeper**, **Anne-Marie Runfola**, will introduce bee biology, society, hive structure, and the important role played by this controversial pollinator. Interpret the waggle dance, put together a model hive, and taste test honey to deduce its provenance. Anne-Marie will share activity sheets, resource lists, and information on how to visit a hive with students or build one yourselves. Instructional level focused on upper elementary and junior high, but this rich topic lends itself to classrooms of all ages.



Instructor: Anne-Marie Runfola, Education Consultant and Beekeeper

Workshop 5: Toads and Woodchucks and Bears in the Schoolyard, Oh My!

With every season schoolyards provide wonderful opportunities for you and your students to explore, discover, and learn about the diversity of local wildlife. Embrace the idea that if you plant a garden the wildlife will come. Join **Pam Landry**, **MassWildlife Education Coordinator**, for an overview of local wildlife: essential elements of habitat, natural history, identifying animal sign, what to do with uninvited visitors and the impact of human actions on wildlife habitat. Participants will receive copies of MassWildlife publications and be introduced to additional relevant resources. Appropriate for all grades.



Instructor: Pam Landry, Education Coordinator for MassWildlife and Project Wild Coordinator

Workshop 6: Getting Started in the School Garden

This workshop offers an opportunity to share ideas, successes, challenges, and overall know-how with others who have some experience with planning and developing a school garden program at their school. Participants are encouraged to bring questions with them to the workshop any information and materials that they believe would be helpful to fellow school garden leaders. Appropriate for Pre-School through High School.

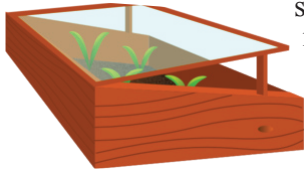
Facilitator: Marian Hazzard, Garden Coordinator Touchstone Community School in Grafton and four to five school garden leaders.



10:20 to 11:30 **Workshop Session 2** (Concurrent sessions, choose one of six workshops)

Workshop 1: Using Cold Frames to Extend the Season

Gardening during the school year in chilly New England can be a challenge, but there are ways to make it happen! In this workshop you will learn about low-cost ways to extend the school growing season, think about the best crops for school-year harvest. **Kira Jewett**, from **Hampshire Regional High School** will show how she involved her classes in the design, building and use of cold frame season extenders, meeting the engineering frameworks for her 8th grade science class. Cold frame plans included. Geared towards grades 4-12.

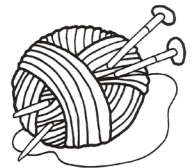


Instructor: Kira Jewett, 8th grade teacher, Hampshire Regional High School in Easthampton.

Workshop 2: Wool Science 101

Wool is an incredible, natural fiber! It has some very unique characteristics due to its protein structure and chemical properties. During this workshop, Ally Hunter, Instructor at Worcester Polytechnic Institute will provide background on the science of wool, explore and demonstrate the unique attributes of wool, and include a hands-on felting activity. Target grade: middle through high school.

Instructor: Ally Hunter, Science Teacher at Worcester Polytechnic Institute in Worcester



Workshop 3: Teaching Forensics Using Pollen and Plants



Forensics is the application of a broad spectrum of sciences to answer questions of interest to the legal system. It is also a popular subject in the classroom, providing endless opportunities to teach science through problem solving. Along the way students also get the opportunity to assess their skill and interest in forensics as a career. **Cynthia Jensen**, science and forensics teacher at **Gateway Regional High School** will take you through the problem solving process, using pollen and plants as the medium through which the science is applied. Appropriate for middle and high school grades.

Instructor: Cynthia Jensen, Science and Forensics Teacher, Gateway Regional High School, Huntington

Workshop 4: Growing a Sustainable Campus

Why and how are UMass Amherst students creating permaculture food gardens across their campus? Get an introduction to this sustainable, regenerative gardening and design technique, and learn how to start a permaculture garden at your school. You will walk away with a few activities for engaging students in permaculture learning. Most appropriate for middle and high school.

Instructor: Nathan Aldrich, Auxiliary Services Sustainability Coordinator, University of Massachusetts, Amherst



Workshop 5: Vegetable Garden Basics

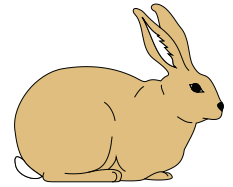
In this practical vegetable gardening workshop, **Ken Oles**, retired teacher, Master Gardener and leader of the **Harvest from the Heart Community Food Garden in Wrentham**, will use power point and activities to tell you how and when to grow the crops in the school garden. The workshop will cover when and how to seed, the seed mix, and which plants should be bought and transplanted. He will also cover water, fertilizer, mulch and harvest tips for the established garden.



Instructor: Ken Oles, URI Master Gardener & leader of Harvest from the Heart Community Food Garden in Wrentham

Workshop 6: Keeping Rabbits in the Classroom

Rabbits are a great choice for those wishing to keep an animal in the classroom. They are small, quiet, easy to feed and keep clean and are good at multiplication. Topics include: health and safety issues, classroom management, housing and equipment, and suggested science related projects. Time permitting participants will help build a small all wire cage suitable for the classroom.

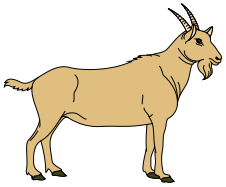


Instructor: Russ Anderson teaches Environmental Science & Technology at Worcester Technical HS. He has raised rabbits for years in the classroom and on a small farm in Leicester.

11:30 a.m. to 12:50 p.m. Lunch, Awards and Speakers, and the the opportunity to interact and visit exhibits. **2011 Teacher of the Year Award** will be presented to **Teresa Strong** from the **Harvard-Kent Elementary School** in Charlestown.

12:50 to 2:00 p.m. Workshop Session Three (Concurrent sessions, choose one of six workshops)

Workshop 1: Dairy Goats and Other Small Ruminants



This workshop provides an overview of everything you ever wanted to know about goats and other ruminants. **Bob Cote**, 5th grade teacher at the **Jordan Jackson School** in **Mansfield** raises dairy goats on his farm and integrates activities related to them in his classroom. Learn about raising and caring for dairy goats, the digestive system and diet of small ruminants and learn how to make cheese and butter. He will also offer activities and resources for teaching about goats. Targeted to elementary & middle grades.

Instructor: Robert Cote, Grade 5 Teacher, Jordan Jackson School in Mansfield and our 2009 Massachusetts Agriculture Teacher of the Year



Workshop 2: Pollinators Basics Workshop

Pollinators are everywhere, yet many of us do not realize the important role that they play in our lives. For example, did you know that pollinators are responsible for 1/3 of the food that you eat, and produce approximately \$40 billion worth of in products annually in the U.S alone? This workshop will provide introductory information on the identity and behavior of pollinators native to North America, with particular emphasis on bumblebees and the monarch butterfly. The workshop will also include a hands-on activity related to learning and memory in insect pollinators.

Instructors: Robert C. Gegeer and Ally Hunter, Worcester Polytechnical Institute

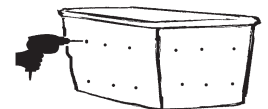
Workshop 3: Maple Sugaring Workshop

Late winter is the time to get outdoors, explore the local landscape and woodland, and find the perfect Sugar Maple tree to tap with your students. As you boil the sap into syrup, students can study the history of maple sugaring, draw and chart the boiling process, sing songs, write stories and generally immerse themselves in the maple season. Farm



Educator **Doug Cook**, from **Land's Sake** in **Weston** will bring equipment and activity ideas offering ideas and answering questions to take you through the maple season. Targeted for elementary to middle grades.

Instructor: Doug Cook, Education Director, Land's Sake



Workshop 4: Using a Worm Bin to Support Science Standards

Take a step towards developing your own green classroom. Composting is nature's way of recycling and worms are known as nature's recyclers. Learn first hand, how we can recycle our garbage, reducing waste that would go into a landfill, and use the compost material for planting new plants. This workshop will show how to set up an inexpensive worm composting bin for your classroom. Instructions for harvesting your compost material and ways you can use it will also be covered. **Teresa Strong** will offer tips and activity ideas for building and managing the bins with your students. She'll link vermicomposting to the science curriculum throughout the school tying it to the Massachusetts State Standards for Science and Technology with a literacy component added.

Instructor: Teresa Strong, Science Specialist, Harvard-Kent Elementary School, Charlestown and our 2011 Massachusetts Agriculture Teacher of the Year



Workshop 5: Introduction to Plant Classification

Michael LaMontagne, horticulture teacher at **Franklin County Technical High School** in **Turner's Falls** will offer an introduction to plant classifications. Learn how to use a simple key, an acronym and your senses including smell, touch, sight, sound and sometimes taste to introducing students to plant identification. Weather permitting, we will identify some of the plants on the school grounds. Appropriate for middle and high school educators.

Instructor: Michael LaMontagne, horticulture teacher, Franklin County Technical HS, Turner's Falls.

Workshop 6: Growing a Holistic Curriculum with Ten Medicinal Herbs

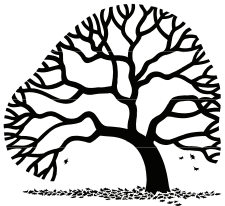


Both ornamental and productive, easy-to-grow medicinal herbs such as lavender, mint and chamomile deserve a place in every school garden. Planting, harvesting, and using herbs will reconnect kids of all ages with the natural world around them, stimulating their senses with inspiring scents, colors, textures, and tastes while providing a comprehensive curriculum for teachers throughout the season. Attendees will receive a list of 10 safe and easy-to-grow medicinal herbs suitable for school gardens (or containers) as well as the information needed to plant, harvest, and prepare them and inspiring ideas for incorporating these specific plants into the wider curriculum.

Instructor: William Siff is an experienced Clinical Herbalist and Licensed Acupuncturist. Bill owns and operates Goldthread, a medicinal herb farm, apothecary, distillery, and education center in Western Massachusetts.

2:10 to 3:20 p.m. Workshop Session Four (Concurrent sessions, choose one of six workshops)

Workshop 1: Edible Landscaping for the Schoolyard



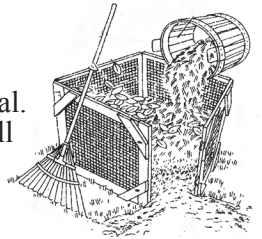
Meet a variety of trees, shrubs, groundcovers and vines that are edible and also offer interesting ornamental qualities that are sure to add to your school landscape. In his presentation, **Warren Leach**, horticulturist, garden designer and co-owner of **Tranquil Lake Nursery** in **Rehoboth** will show images and discuss a diverse variety of plants that are easy to grow, edible for humans and also offer attractive flowers, foliage, seed heads, barks and twigs during the school year. Plant list provided. Appropriate for all grades. This workshop is a repeat of the workshop in Session 1.

Instructor: Warren Leach, landscape horticulturist, Tranquil Lake Nursery

Workshop 2: Composting at the School Workshop

Composting provides huge benefits for humans and the planet, and can be fun, easy and educational. In this workshop, Education Consultant and **Master Composter, Anne-Marie Runfola**, will offer an overview of composting – from basic science to simple steps in setting up a system that works for your school. You will discuss how to teach science, math, civics and even art using the compost pile and how to adapt composting to a larger school or municipal project. Explore a worm bin and learn how to make a soda bottle bioreactor in this session's hands-on activities. Composting pairs perfectly with school gardening, nutrition, soil science, civics and other curricular topics.

Instructor: Anne-Marie Runfola, Education Consultant, Master Composter certification from NYBG.



Workshop 3: Teaching Nutrition Using My Plate



Meet the new My Plate guidelines from USDA and learn how you can use it as a nutrition teaching tool in the classroom. **Nutrition educator Linda Rohr** will focus on making meals based on fruits and vegetables. As part of the workshop the group will prepare and sample a vegetable soup, carrots and a zucchini substitute for pasta. Appropriate for all grades.

Instructor: Linda Rohr, Middle School Nutrition Educator

Workshop 4: Engaging Students in Invasive Species Detection

Wondering where your students fit in the battle against forest pests? In this interactive workshop we we'll review what is being done about Asian Longhorned Beetle and other invasive species, and how students can help. Experience hands-on activities to use in your classroom or program and leave with the tools you need to succeed! Lesson and activities may be adapted for use at any grade level.

Instructor: Stacy Kilb is the Asian Longhorned Beetle Outreach Coordinator for the MA Department of Agricultural Resources. Stacy is currently developing curricula on invasive forest pests for K-12 students, and also Spanish language versions of existing ALB outreach materials.



Workshop 5: Embryology in the Classroom

Incubation of eggs in the classroom provides many cross curricular opportunities for teaching reading, writing, math, science and much more. It can also be a challenge for those who have not tried it before. **Jessica Ouimet** hatches eggs with her fifth grade students at the **Coburn Elementary School** in **West Springfield**. She will unravel the mystery, showing you how to set up the incubator, put in the eggs and turn the eggs for successful hatching. She will also present an overview of embryo development, life cycles and brooding of newly hatched chicks and share activities used in her classroom as she teaches this unit. Content is geared towards the elementary grades.

Instructor: Jessica Ouimet, teaches fifth grade at the Coburn Elementary School in West Springfield and raises chickens and other fowl on her farm in Russell.



Workshop 6: Success in the School Garden

During this workshop several experienced school garden leaders will offer stories of their success in the school garden. Each will provide examples of garden activities, lesson plans, adaptation for their grade level and community connections that they have successfully carried out in their school garden. They will also offer strategies for integrating the garden program into the classroom curriculum. Bring your questions and learn from the experience of others.

Workshop Facilitator: Hope Guardianier, Executive Director of School Sprouts Educational Gardens in Holyoke and three to four experienced school garden leaders.



3:20 p.m. Evaluation and Wrap Up and Distribution of MAC Educational Materials.

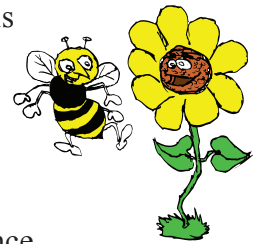
Directions To The Paul R. Baird Middle School in Ludlow: The Baird Middle School is located just minutes from the Ludlow Exit of the Massachusetts Turnpike. This is the second exit west of Sturbridge and the third exit east of Route 91 in Springfield. Take the Massachusetts Turnpike to Exit 7 towards Ludlow/Belchertown. Turn right on Route 21/Center Street. Go .4 miles to Chapin Street and turn right. Pass the Ludlow High School and drive for Veterans Park Elementary School on the right. At the next street on the left, you will see a green sign for town offices that includes the Paul R. Baird Middle School. Make a left turn here, just before the overpass (This is Sportmans Road). Stay left at the first intersection on Sportmans Road and you will then see the school on the left. Make a left turn onto Rooney Road and keeping the school on your right pass the circular front entrance and continue along the side of the building to the entrance with a blue stairway and ramp.

Registration Information:

Advanced Registration: Fee: for the full day, including lunch, pdp's and all materials is \$50.

Registration on the day of the Conference: \$55 (Subject to space availability.)

Exhibitor Fee: \$50. (An 10 foot table will be supplied; set up no later than 8:30 a.m.)



Professional Development Points: 10 PDPs are available for those who attend the full day conference, carry out a related classroom activity, and send in a brief report of their experience. For More Information: call Debi Hogan at 508-336-4426 with your questions.

For Additional Information: Check out our website for up-to-date conference information at: www.aginclassroom.org.

Scholarships: A limited number of full and partial conference registration scholarships are available to new teachers and teachers from urban schools. The funds for these scholarships were provided through a generous donation from an AgEnhancement Grant from Farm Credit East. For more information on eligibility for these scholarships and a registration form, visit our Winter Conference page at www.aginclassroom.org.



FARM CREDIT EAST

Sponsors: Partial funding for the school gardening and composting workshops were funded by a USDA Specialty Crops Grant through the **Massachusetts Department of Agricultural Resources**. We also thank the **Ludlow Public Schools** and **Randall's Farm** in Ludlow for their support!

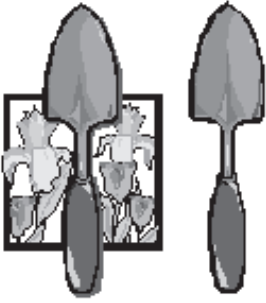


11th Annual Growing Minds through Massachusetts Agriculture

Registration Form

Saturday, March 10, 2012

Paul R. Baird Middle School, Ludlow MA



Name _____ School/Affiliation _____

Address (Circle one: school or home) _____

Town/City _____ Zip Code _____

Phone # _____ Fax # _____

e-mail address _____

- Registration:** \$50 for conference participants \$50 for exhibitors
 \$55 for all on the day of the Conference

Enclosed is my payment in the amount of _____, to register _____ people for the conference.
(Please make checks payable to Massachusetts Agriculture in the Classroom.)

- I have received a mini-grant from MAC and am willing to bring a poster of my mini-grant project to display in the exhibit area. Please send additional information.
- I cannot attend but want to receive mailings on future meetings and resources.

I would like to register for the following workshops:

Session 1 (1st choice) _____ (2nd choice) _____

Session 2 (1st choice) _____ (2nd choice) _____

Session 3 (1st choice) _____ (2nd choice) _____

Session 4 (1st choice) _____ (2nd choice) _____

Exhibitor reservation: The fee for the day for commercial exhibitors is \$50. An 8 x 10 foot table and chairs will be supplied. A \$50 check made payable to Massachusetts Agriculture in the Classroom is enclosed _____

Please return this form to: Massachusetts Agriculture in the Classroom

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massaginclassroom@earthlink.net
www.aginclassroom.org