

Massachusetts Agriculture in the Classroom

Social Studies
Economics
Nutrition
Science



Workshops & Conferences

Maple Sugaring Workshop
Tuesday, February 22, 9:00 - 3:00
Warren Farm and Sugarhouse
North Brookfield, MA \$30

Annual Winter Conference
Saturday, March 12, 8:30 - 3:30
Paul R. Baird Middle School
Ludlow, MA \$50

Summer Graduate Course
8 Workshops on Massachusetts Farms
Starting: Tuesday, June 28, 2011
Ending: Wednesday, August 16, 2011
Farms across the State
Details on page 2.

Volunteers Help Us Grow

Massachusetts Agriculture in the Classroom is growing and you can help us grow. In 2011, we are expanding our educational programs to include outreach for parents and young children at fairs, festivals, farmers markets and other educational venues.

As part of this initiative MAC is pleased to announce the initiation of a new Volunteer Program. We are currently developing a volunteer manual, presentation materials and a training course to support this new endeavor. All volunteers will receive a copy of the manual, power point presentation and ten hours of training about agriculture in Massachusetts, MAC and lessons for engaging young children in agricultural activities.

We invite you to join us as a volunteer. You will be supporting MAC while learning more about agriculture. Two separate training sessions will be held in 2011. The first is scheduled for the April School Vacation on April 19 & 20 in Marlborough; the second will take place in July. Each provides ten hours of training over two days, 9 a.m. to 2 p.m., with lunch included. The training sessions are interchangeable to provide for maximum flexibility, should you be able to attend only one April date. Once training is completed, you'll be given the opportunity to represent MAC at public events, working with at least one other volunteer or board member at any time.

This new volunteer initiative and three new agricultural kits that will help volunteers take fun activities for kids to fairs and festivals was supported by a



Volunteers worked with MAC Board members to take fun agricultural activities to the Big E and other fairs.

grant from the Massachusetts Society for Promoting Agriculture. We are extremely grateful to the Society for this support that will enhance and expand outreach in an important way.

As we move forward with this new program, we welcome your input. If you, or someone you know, would make a terrific volunteer for MAC, please let us know. The training is sure to be both educational and fun.

Scholarships Now Available!

We are pleased to report that during the 2011 Calendar Year, a number of full and partial Registration Scholarships are available to new and urban educators for all of MAC's popular education programs.

These Scholarships are sponsored by a \$2,860 grant from the Farm Credit East AgEnhancement Program. We are truly grateful to Farm Credit East for this important support of Massachusetts' teachers and MAC's education programs. For more information visit our website.

Feature Topic:



Gardening with Young Children

Mission: Massachusetts Agriculture in the Classroom is a non-profit 501 (c)(3) educational organization with the mission to foster an awareness and learning in all areas related to the food and agriculture industries and the economic and social importance of agriculture to the state, nation and the world.

2010 Mini Grants

The MAC Mini-Grant program awarded **\$3,142 in 2010** to support these **seven worthy agricultural education projects**. Grants of up to \$1,500 are awarded three times a year. The deadlines for proposal submission are the first of April, September and November. We encourage any Massachusetts educators to submit a proposals to enhance their educational program. More information and mini-grant guidelines are available on-line at www.aginclassroom.org or e-mail us to request a brochure at massaginclassroom@earthlink.net.

April 2010 Mini-Grants

“From Garden to Plate” Marblehead High School	\$365
“Egg to Chicken” Barry School, Chicopee	\$300
“Science, the Visual Arts and Vermicomposting Collide” Hubbardston Elementary School	\$280
“NES Courtyard Garden” Northbridge Elementary School	\$145
“Hatching Chicks at West Elementary” West Elementary School, Southbridge	\$300
April Funding Total	\$1,390

September 2010 Mini-Grants

“Vermicomposting in the Classroom for a Three Sisters Garden in the Schoolyard” Kenny Elementary Sch., Dorchester	\$752
September Funding Total	\$752

November 2010 Mini-Grants

“YouthSeed: Seed Starting & Nursery Care” Youth Build Lowell	\$1,000
November Funding Total	\$1,000

**Total 2010
Mini-Grant Awards** **\$3,142**



President’s Message

2010 brought a lot of changes for Massachusetts Agriculture in the Classroom, and I am pleased to report that this year of growth and long-range planning has served us well. Our programs are better than ever, reaching ever increasing numbers of educators, while our finances are gaining strength. We thank all the teacher participants, workshop presenters, farm hosts, volunteers and donors who have made this year a success. It is the teachers

who attend our programs and the farmers whom we champion with our education programs who have always been our biggest supporters.

We are especially grateful this year to several organization and foundations that sponsored our educational efforts during the year. 2010 began with a \$1,000 grant from **Farm Credit East Ag Enhancement Program** to support printing our winter newsletter. This foundation awarded us a \$2,800 grant in 2011 to initiate a new Scholarship program. The **Whole Foods Markets in the North Atlantic Region** sponsored our Fall Greening the School Conference for Educators and **Big Y Foods, Inc.** donated \$1,000 to sponsor our 2011 Winter Conference.

Last spring, MAC was awarded a Marketing Grant from the **Mass. Dept. of Agricultural Resources**. We developed fun agricultural activities for children that were previewed at agricultural fairs last fall and then posted on our website. The addition of these new activities led us to an update for our whole website, which should be in effect by mid-February. We hope you visit soon to see the new look!

Building on this fairs initiative MAC applied for and received a grant from the **Western Massachusetts Trustees of the Eastern States Exposition** to support our efforts at the Big E. Then this fall, MAC was awarded a \$9,000 grant from the **Massachusetts Society for Promoting Agriculture** to help us develop tools and training for a new volunteer program that will expand our outreach to even more fairs and public events. Thank you to each of you for this impressive support of our educational programs.

*Marjorie Cooper
President*

Summer Graduate Course



Come see what agriculture has to offer, while you learn about farming during our Summer Graduate Course.

Plan to join us for our popular Summer Graduate Course for Educators, now in it’s 6th year. MAC will collaborate with **Fitchburg State College** to offer this three-credit graduate course, titled **“Growing Agriculture in the Classroom.”** Using Massachusetts farms as the classrooms, teachers are immersed in agricultural-literacy training through fun, hands-on study and investigation of agriculture education resources. It helps enhance curriculum and meets many MCAS requirements.

The course will meet on **Tuesdays, June 28 and August 16** at the **Brigham Hill Community Farm in North Grafton from 9 a.m. to 3 p.m.** Each registrant must attend both sessions and also participate in **six additional workshops** during the summer, selected from approximately twelve workshops on a variety of topics on farm locations across the state.

Participants will keep a journal of their agricultural journey and develop a classroom project, which they will present to their peers on August 16. Farm workshops may cover topics such as farm animals, local foods, nutrition, plant science, soils, technology, water, sustainable agriculture and more.

This course will assist new educators and those who want to expand their curriculum. Participants will learn how to create community partnerships; link the classroom to the farm; expand math, science, social studies, English, art, nutrition, technology and more using agricultural examples.

The **fee** for this eight-day course is **\$500** and includes all materials; farm workshops; meals and **three graduate credits**. **Partial scholarships** are available to new teachers and those from urban schools. For more information visit www.aginclassroom.org.

Resources for Gardening with Young Children

Mass. Dept. of Agricultural Resources
www.mass.gov/agr

Mass. Nursery & Landscape Association
www.mnla.com

Mass. Flower Growers Association
www.massflowergrowers.com

Arnold Arboretum of Harvard University
<http://arboretum.harvard.edu>

Berkshire Botanic Garden
www.berkshirebotanical.org

Massachusetts Audubon Society
www.massaudubon.org

Massachusetts Horticultural Society
www.masshort.org

New England Wild Flower Society
www.newfs.org

Worcester County Horticultural Society
www.towerhillbg.org

Curriculum & Resources Websites

Brooklyn Botanic Garden - www.bbg.org

California Foundation for Ag in Classroom
www.cfaic.org

Colorado State Univ. - www.colostate.edu/Dept/CoopExt/4dmg/Children/ingarden.htm

The Great Plant Escape
<http://urbanext.illinois.edu/gpe/index.html>

Kids Gardening - www.kidsgardening.org

The Kids Garden
www.thekidsgarden.co.uk

My First Garden
<http://urbanext.illinois.edu/firstgarden>

National Gardening Association
www.garden.org

Renees Garden
www.reneesgarden.com/articles/child.html

Sustainable Living - html://eartheasy.com/grow_gardening_children.htm

UMass Extension - www.umassextension.org/index.php/information/gardening

USDA Food & Nutrition Service - www.fns.usda.gov - Search for Grow it Books

Information for this newsletter was taken from the resources listed above.

Gardening with Young Children

Much more than plants grow from gardening with a child, no matter how young the child. The garden provides a terrific opportunity **to bond** while also **having fun**. There are endless opportunities to awaken a **sense of wonder** through exploration and discovery. These experiences **expand the child's world** to include the earth, soil and sky while also providing **memories that last a lifetime**.

Much formal research regarding the benefits of gardening for children has been conducted in the past 25 years. These studies show that interaction with the garden and the natural world provides numerous **developmental benefits**: educationally, emotionally, socially and physically. In addition the garden helps **connect children to the world around them**, including the natural environment and the food that sustains them. Because the early years are crucial for development, these experiences are even more rewarding for even the youngest children.

Educational Benefits

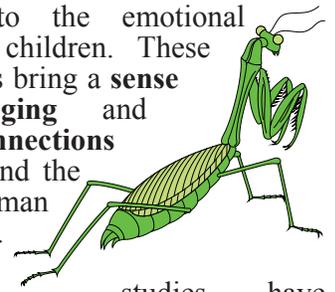
The garden is rich in meaningful **learning opportunities** and provides **practical lessons** that allow children to learn by doing. They can **experience first-hand** the food web cycle and the interactions between different organisms in the natural community.

Studies have shown that garden experiences offer **improved cognitive benefits** including: enhanced ability to focus; increased information recall; observational skills, creativity and the ability to reason. For teachers, gardening provides a **full curriculum** incorporating language, science, math, nutrition, social sciences and the arts. It provides **different forms of engagement for children**, such as: designing; planting; maintaining; recording; creating art and story telling. Tests have found children who garden **score significantly higher** on science achievement tests.

Social & Emotional Benefits

Regular contact with the natural world is

essential to the emotional health of children. These experiences bring a **sense of belonging** and form **connections** to nature and the larger human community.



Several studies have also found that gardening **reduces stress and increases self esteem** in children. It provides opportunities to **learn patience** while waiting for things to grow. Concrete gardening tasks also **focus children** who might not normally concentrate for more than a few minutes.

Growing living things gives children a **sense of accomplishment and self reliance**. They learn about **nurturing** and develop **responsibility** as they see how necessary their care is to plants. They develop **pride and ownership** in creating something aesthetically pleasing. Their **self confidence** increases as they reap the rewards of their work and are praised by others.

The garden also provides opportunity for **modeling** as children observe and imitate older children and adults. Children have also been found to demonstrate better **interpersonal skills and behavior**. They benefit from spending time with you and also gain **social interaction** with young friends when they share their garden. In groups, gardening provides different forms of engagement for children to **work cooperatively**. They develop skills in negotiating and sharing responsibilities. Each also contributes in individual ways developing a greater self-understanding. Gardening can also facilitate opportunities for children to share their cultural heritage.

Physical Benefits

Gardening provided **healthy outdoor activity** and an opportunity for both **structured and unstructured play**. As children work in the garden they develop **physical skills** such as eye-hand coordination and fine motor skills. While learning to use tools and carry out tasks, they develop **strength** and improved physical health.



Environmental Benefits

Plants are as critical to our existence as air and water. In the garden the wonders of plant life are everywhere and there are many creatures to explore. The garden provides a **unique environment for children to experience the workings of the natural world.** As they follow their inborn curiosity, they observe, first-hand, the **cycles of life** and see them change over time. A greater appreciation and respect is formed as they learn the value of plants, animals and eco-systems. This leads to an understanding of the role we each play on the earth.



Good stewardship of natural resources is also a part of the lessons in gardening, and the child will see the principles in action. Going green become an innate part of their life. There's no better way to avoid the carbon cost of shipping food vast distances than by growing it yourself. This translates to "**food inches**" from the garden to their plate.

Nutritional Benefits

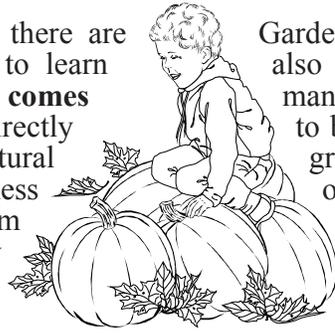
When children garden, there are so many opportunities to learn that the **food they eat comes from the land** and is directly connected to the natural world. They can witness the food web cycle, from healthy soil to healthy edible crops. They can harvest, prepare food, eat the fruits of their labor and then recycle the wastes back to the garden through composting. There are so many chances to learn about **nutrition, healthy eating and making good food choices.**

These healthy eating habits, once formed, can last a lifetime, creating a sustainable life-style. Numerous studies have found that children who grow their own food are more likely to eat fresh fruits and vegetables and express a preference for these foods. They become more adventurous in eating fresh produce. They notice similarities and differences from their garden grown vegetables and those from the grocery store.

More Rewards

Gardening with the children is also **safe and inexpensive.** In many cases you don't have to buy anything special. And growing and eating your own fruits and vegetables, saves money from the food budget.

The experience of **participating with children in gardening activities is invaluable.** Whether you have access to a large garden plot, small yard or are confined to a windowbox, together you'll find the joy of watching plants and the animals that live among them grow and flourish. You will find projects that awaken the sense of wonder and nourish the self confidence. The experience of planting a seed with a child and then watching it grow, while nurturing the plant and waiting for it to bear fruit, will expand their world. Plan to garden with the children in your life and appreciate the joy and amazement of discovering something new as you watch the garden and children mature.



In the Garden

Getting Started: Begin by talking with the child about the garden. Go some place where there is a garden to view. Encourage them to start a journal and write or draw their garden adventures and explorations.

Make It Their Own: Give them their own garden space. Scale their garden to their age and abilities, so that they can manage the garden without feeling overwhelmed. For a toddler, one row or a few container pots is sufficient. A space of 3' by 3' is ideal for a preschooler.

Design the Garden: Let the child help plan the garden. Give them a part in deciding where to put their own garden space and in its design. Talk about what plants need and healthy soil. Is there enough sun and is water readily available. Make sure the child can easily reach all the plants and properly care for the garden.

The Plants: Engage the child to help in choosing the plants they will grow. Be sure to include some of the plants they really like to eat. You can choose some plants that are already started in pots. Let them dig the holes and gently tamp the soil down around the plant.

Also include plant that are seeded directly into the ground to show the whole life cycle from seed to harvest. Choose some seeds that mature quickly, like radish and lettuces,

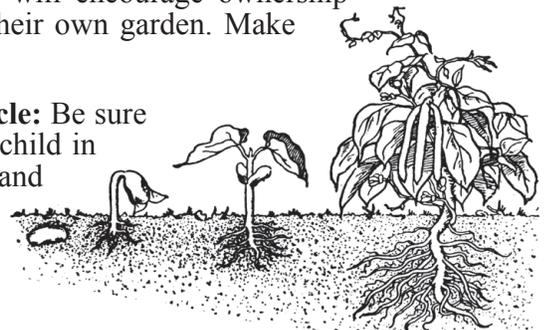
for quick success. For very young children, be sure to plant larger seeds, such as beans that are easily handled. Soak the seeds for a few hours to ensure germination.

Water, Water, Water: Provide a watering can or gentle shower or mist sprayer hose attachment so the child can water their own plants. With a very young child, you may want to water first and then have them follow after you.

Garden Chores: Enlist the child in garden chores as much as their capabilities and attention span allow. In addition to planting and watering, they can mulch soil, remove insects and even do some weeding. Relax your standards a bit and do some behind the scenes maintenance, if necessary.

Give them their own garden tools, that are age appropriate. Kids size tools are easy to find and old kitchen utensils also serve well. Find a little bucket to store their tools next to yours. This will encourage ownership in caring for their own garden. Make plant markers.

Finish the Cycle: Be sure to include the child in the harvest and preparation of their food for the table.



Tips for Gardening With Young Children

One of the best things that you can grow is a gardener. These tips will help you to engage their interest and create lasting memories.

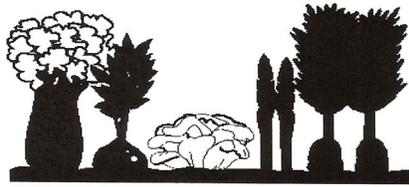
Make It Fun: Be curious and open to whimsy and surprise. Let the child take the lead in discovery, then provide the background information.

Relax Your Standards: Gardening priorities are different for young children than adults. The “doing” is more important than the end result. Let go of the need for perfection. Work as much as you can in small patches of time. Plan to get dirty, gardens require hands-on interactions with soil, plants and water.

Give Them a Good Experience: Young children have short attention spans. Start off small and grow. Provide lots of simple activities and be prepared to change them as interest wanes. Spend as much or as little time as feels right to the child, you can always come back to the project later. But don't expect them to work for long without your direct interaction. Grow something that appeals to them and use their other interests or hobbies to keep things interesting. Read a garden story or add an art easel to the garden or a sandbox for digging holes. Make sure you both wear comfortable clothes that can get wet and dirty. Keep tools and supplies size-appropriate to the task.

Be an Example in the Garden: Be a good model. Show them how much you love gardening and respect the natural world. Demonstrate how to handle living things with care and respect. Be a facilitator, never tell them something you can show them. Teach with encouragement and enthusiasm. In a group, enlist older children to partner with the younger ones.

Give Them a Say: Enlist them in the garden chores as much as their capabilities and attention span will allow. Offer guidance but let the child make the choices.



Engage them through the entire process, from seed to table. Make sure that they have their own garden space, and let them help plan that garden.

Provide Opportunities for Success: Aim for rapid results. Try to steer them towards fairly quick cropping and easy to grow plants. Grow the plants they like to eat or that have a special interest. Do behind-the-scenes maintenance such as watering to ensure that plants live and produce. Intervene where necessary to assure success. Show off their garden.

Tie in All the Senses: Surround them with great gardens with a riot of sensory experiences. Help make the connection with what they see, feel, hear and smell and the feelings they have when they are in a garden. Encourage use of all the senses, but teach what is okay to touch or taste and when to check with an adult.

Grow Something to Eat: Growing food is a great way to stimulate a child's interest in gardening and teach that food comes from the land, whether directly or indirectly. Let them complete the cycle from seed to harvest to the table. There are so many natural lessons about nutrition and healthy eating.

Make the Environmental Connection: Teach respect for the natural world and the cycles of life. Explore the soil; learn how plants are critical to all life and what plants need; discover beneficial insects; encourage wildlife in the garden and so much more.

Keep the Garden Safe: Avoid pesticides, even organic ones, and keep fertilizers and sharp or motorized tools out of reach. Stay away from plants that are poisonous or have sharp thorns. Teach them what they can touch and to eat only those plants that you tell them are edible. Test the soil; children are very sensitive to lead poisoning.



Gardening Books for Children

Big Yellow Sunflower by Frances Barry, Candlewick, 2008. (picture book)

Bugs! Bugs! Bugs! by Bob Barner, Chronicle Books, 1999. (picture book)

The Carrot Seed by Ruth Kraus, Harper Collins, 1945. (picture book - a classic)

A Child's Garden: 60 Ideas to Make Any Garden Come Alive for Children by Molly Dannenmaier, Timber Press, 2008.

A Child's Garden: Enchanted Outdoor Spaces for Children and Parents by Molly Dannenmaier, Simon and Schuster, 1998.

Eating the Alphabet: Fruits and Vegetables from A to Z by Lois Ehlert, Red Wagon Books, 1996. (picture book)

Eddie's Garden and How to Make Things Grow by Sarah Garland, Frances Lincoln Publisher, LTD, 2006.

The Gardener by Sarah Stewart, David Small illustrator, Caldecott Honor Book, 1997. (historical fiction)

A Gardener's Alphabet by Mary Azarian Houghton Mifflin Co., 2000. (picture book)

Gardening with Children by Monika Hannemann et al., Brooklyn Botanic Garden: All-Region Guides, 2007.

Gardening with Children by Beth Richardson, Taunton Press, 1998.

Gardening with Young Children (Early Years Series) by Beatrys Lockie, Hawthorn Press, 2007.

Gardening Wizardry for Kids by L. Patricia Kite, 1995.

George and Flora's Secret Garden by Joanna Elizabeth Elworthy, Random House, 2010.

Growing Vegetable Soup by Lois Ehlert, Harcourt Brace, 1990.

Hollyhocks and Honeybees: Garden Projects for Young Children by Sara Starbuck et al., Red Leaf Press, 2002.

In My Garden by Ward Schumaker, Chronicle Books, 2000. (picture book)

Jack's Garden by Henry Cole, Mulberry Press, 1997. (Picture Book)

Kids in the Garden Growing Plants for Food and Fun by Elizabeth McCorquodale, Black Dog Publishing, 2010.

Planting a Rainbow by Lois Ehlert, Harcourt Brace, 1988.

Pumpkin Circle: The Story of A Garden by George Levenson, 1997. (picture book)

RHS: Grow It, Eat It by the Royal Horticultural Society, Dorling Kindersley, 2008.

RHS: Wildlife Garden by Martyn Cox, Dorling Kindersley, 2009.

Roots, Shoots, Buckets & Boots: Gardening Together with Children by Sharon Lovejoy, Workman Publishers, 1999.

Sunflower Houses by Eve Bunting, Voyager Books, 1999.

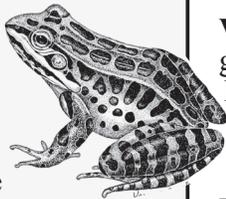
The Surprise Garden by Zoe Hall, illustrated by Barbara Lambase, Harcourt-Brace, 1996.

Garden Wildlife

There are endless opportunities to explore wildlife in the garden. Entire communities of insects, birds and animals live hidden away from view. What role does each organism play in the rhythm of the garden?

Dig a hole in the soil or pick up a rock or branch to find a host of insects, worms and other organisms busy working to recycle waste and leaf litter. Butterflies, moths, bees, wasps and other insects stop by to collect pollen and nectar, pollinating the flowers as they go. Sit quietly and watch a flower to see who visits.

Discover the magic of a spirally designed cobweb sparkling with morning dew. Look for an unsuspecting fly trapped in the web by the waiting spider. These spiders and other insects, such as the lady beetle are important garden predators, holding down the populations of destructive insects. Even the industrious ant can be helpful in establishing new colonies of plants by moving seed around the garden.



Add a small pond and you'll provide drinking water and breeding sites for birds, bats and mammals as well as refuges for frogs, toads, turtles, newts and even snakes. Dragonflies, damselflies, water beetles, pond skaters, midges and other water insects soon appear.

Birds will visit the garden to feast on insects as well as the seed heads of flowering plants such as coreopsis and sunflowers. Dig in the soil and robins are sure to follow looking for tasty worms in the disturbed earth. Add water, bird food and a bit of shelter and birds are sure to find nesting spots in the garden.

You may even find signs of mammals in the garden. Look for evidence of chipmunks, squirrels, moles, voles, mice, groundhogs and even foxes.

Thank you to the Massachusetts Society for Promoting Agriculture for funding the development of this Teacher's Resource portion of the MAC newsletter.

Massachusetts Agriculture in the Classroom
P.O. Box 345 Seekonk, MA 02771
www.aginclassroom.org

Favorite Plants for Children

Annual Flowers: amaranth, cosmos, lemon gem marigold, nasturtium, spider flower, sunflower and zinnia

Perennial Flowers: butterfly weed, catmint, coneflowers, coreopsis, daylilies, lady's mantle, malva, sage, sedum, sundrops and yarrow

Herbs: alpine strawberries, anise hyssop, basil, chamomile, chives, dill, johnny jump up, lamb's ear, lavender, lemon balm, mint, oregano, parsley thyme and yarrow

Vegetables: broccoli, carrots, cherry tomatoes, corn, bush beans, lettuces, mesclun greens, potatoes, pumpkins, radishes, snap peas, snow peas, spinach, watermelon and zucchini

Tropicals: banana, bay, citrus, ginger, lemon verbena, peanuts, pineapple mint, pineapple sage, rosemary and scented geraniums

Vines: bottle gourd, cardinal climber, grapes, New Zealand spinach, purple hyacinth bean and scarlet runner bean



Special Garden Spaces

Pizza Garden: Plant a pizza garden by making a circle and dividing it in triangular pizza pie-slice beds containing different vegetables and herbs, lined with narrow pathways. Plant tomatoes, peppers, arugula, garlic, onions, basil, oregano, thyme and other herbs and vegetables. Harvest and make a pizza.

Sunflower House: Plant sunflower seeds 8-12" apart around the outside of a circle 5-6 feet in diameter, leaving a space for the door. Then plant cardinal creeper seeds or the seeds of other small gourds next to the sunflower seeds. As the vines grow they will twine around the sunflowers.

Tepee Shelter: Push bamboo poles into the ground at an angle, so they lean towards each other to make a tepee. Tie the poles together. Plant seeds of vines such as peas, beans, gourds, purple hyacinth beans or scarlet runner beans between the poles. Watch them climb and cover the teepee.

Garden Activity Ideas

Keep a **nature journal** of the plants, insects and animals in your garden. How do they change over time. Sit quietly and observe the garden, then draw or write what you see. Take photos of the plants at different stages.

Investigate the **insects** in your garden. Find out which ones are beneficial.

Start a **compost** pile and add the composted soil to the garden.

Plant a garden to **attract wildlife**. Learn which plants will support desirable birds, butterflies and insects.

Where space is limited, start small with a **container vegetable garden** or lettuce in a **window box**. Plant a **strawberry patch**.

Plant **spring bulbs** outdoors in October; force paperwhite bulbs indoors at the same time.

Raise herbs on the windowsill. Plant grocery store plants, such as carrot tops, avocado pits or sweet potato eyes.

Plant a **Three Sisters Garden** using the native American companion planting involving a trio of corn, beans and squash. Learn the native customs.

Sprout seeds such as alfalfa, black-eyed peas, Mung beans, snow peas or wheatgrass, that will be ready in a few days and can be added to salads and sandwiches.

Harvest seeds from favorite plants, dry them and store them to plant again next year. Start a seed business.

Make a **scarecrow** for your garden

In the winter, **cut branches** of flowering trees and put them in water to **force them into bloom**.

Harvest vegetables, greens and herbs from the garden and plan a menu around these foods.

Invite friends to join you and **share the harvest from your garden**.



Workshop on the Farm

Join us for our 2011 winter workshop on the farm and try out some hands-on activities for the classroom. The workshop runs from **9 a.m. to 3 p.m.** The fee of \$30 includes pdps, lunch and all materials.

During the winter break, spend **Tuesday, February 22**, at the **Warren Farm & Sugar House in North Brookfield**. In the morning over coffee and treats, learn about maple sugar history, Native American traditions and changes from Colonial times to today with owners **Jan & Dale Wentworth**. Find out about current threats to maples from global warming and the Asian Long-Horned beetle, and how their potential loss effects daily life and economic aspects in New England. Following a unique maple lunch, we'll spend the afternoon out-of doors, exploring the sugaring operation and sugar house. You'll assist with tubing installation and tap a tree, make maple candy and try out other hands-on activities to use in the classroom. Bring warm clothes and boots. Middle and high school teachers are encouraged.



Annual Winter Conference

MAC is sponsoring our **10th Annual Winter Conference for Educators** at the **Paul R. Baird Middle School in Ludlow on Saturday, March 12th**, from **8:30 a.m. to 3:30 p.m.** The conference provides teachers with activity ideas, resources and framework connections to link the farm and the classroom.

Four workshops sessions will be held during the day, with a choice of **six concurrent workshops per session**. Each will be taught by a teacher, or a teacher working together with a farmer, and will offer specific background and activities for either elementary, middle or high school. The **\$50 fee** includes all workshops; breakfast snack and lunch from nearby Randall's Farm; materials, and ten PDPs with a related classroom activity. Registration **Scholarships** are available thanks to a grant from the **Farm Credit East Ag Enhancement Program. Big Y, Inc. in Springfield and the Massachusetts Department of Agricultural Resources** also contributed funds to support this conference. A full list of workshops, registration form and the scholarship information can be found on our website at www.aginclassroom.org.

Exceptional Teacher Award

Do you know a teacher who does an exceptional job of bringing agriculture alive for their students? Consider nominating him or her for the **MAC Teacher of the Year Award for 2011**. Send us a description of his/her agricultural classroom and the reasons for your recommendation for the award. Applications are due **March 15, 2011** and will be announced in the autumn edition of our newsletter.



National Conference!

Mark Your Calendar! The 2011 National Agriculture in the Classroom Conference will be held **June 22-25** in **Fort Lauderdale, Florida** at the Marriott Harbor Beach Resort and Spa. The theme this year is: Discover Education's Hidden Treasure: Agriculture. The conference includes a variety of hands-on workshops and mini-workshops; make-and-take sessions and tours. Find information on the program and registration at www.agclassroom.org.

REGISTRATION ... DONATION... MATERIAL ORDER FORM

Please fill out this form and return it to: **MAC, Inc. P. O. Box 345 Seekonk, MA 02771**

Name _____

School or Organization _____ Address _____

City _____ State _____ Zip _____

Phone Number (day) _____ (evening) _____ e-mail _____

I am registering for Maple Sugaring Workshop on February 22, N Brookfield \$30 enclosed please send directions

I am registering for the Winter Conference on March 12 in Ludlow \$50 enclosed please send directions

Please send information on:

- The 2011 Summer Graduate Course; MAC 2010 Annual Report; Mini-Grant Guidelines

I would like to order: "Eight Lessons About Agriculture & the Environment" \$12

- "Farm Field Trip Manual" \$12; "Schoolyard Gardens & Their Community Partnerships Manual" \$10

I'd like to make a tax-deductible donation in the amount of: \$50; \$25; \$10 Other donation _____



Calendar of Events

- 🌱 **February 25 to 27 - Youth Food & Justice Summit**, Boston. Visit <http://realfoodchallenge.org/nefoodjustice2011>.
- 🌱 **February 24 - CSA Farm Fair Share** in Arlington. For information, visit csafairarlington.wordpress.com.
- 🌱 **March 1 to 3 - Harvest New England Agricultural Marketing Conference** in Sturbridge, visit www.harvestnewengland.org.
- 🌱 **March 2 - MEES Conference** at Holy Cross in Worcester. 2011 Theme is Navigating Mass. Environmental Education at www.massmees.org.
- 🌱 **March 3 - Ecological Landscaping Assn. Conference & Eco-Fair** at Mass Mutual in Springfield. Visit www.ecolandscaping.org.
- 🌱 **April 7 - The ABC'S of Farm Education: Farmer Project Season Workshop** at Appleton Farm in Ipswich. Visit www.thetrustees.org.
- 🌱 **April 7 - Massachusetts Agriculture Day** at State House. For info e-mail to agpromoboard@mfbf.org.
- 🌱 **May 12 - Mass. Envirothon** in Carlisle at www.maenvirothon.org.

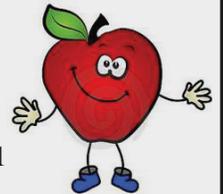
Resources

- 🌱 **My American Farm** an on-line agricultural game from the American Farm Bureau can be found at www.myamericanfarm.org.
- 🌱 **Hands to Earth:** an educational website for the composting program at Quabbin Regional HS in Barre at www.handstoearth.com.
- 🌱 **Urban Environmental Program Website**, a useful tool from EPA at www.epa.gov/region1/eco/uep.
- 🌱 **Maple Sugaring** information, local farms and curriculum from the Mass. Maple Producers Association at www.massmaple.org.
- 🌱 **Bread Comes to Life** classroom activities and resources on-line at www.pumpkincircle.com.
- 🌱 **Pollinator Partnership** offers pollinator counts, planting guides, curriculum, teacher resources and more at www.pollinator.org.
- 🌱 **AgroWorld Science, Technology & Society e-zine** at www.agclassroom.org/teen/agro/agro.htm.
- 🌱 **Grants for School and Youth Gardening:** links and deadlines at www.kidsgardening.org/grants.asp.

- 🌱 **2012 Massachusetts Agriculture Calendar Photo Contest.** Now is the time to start taking pictures for the 2012 Massachusetts Agriculture Calendar Photo Contest. Photos must be at least 4" by 6" and no larger than 8" by 10" and must have been taken in Massachusetts in the past three years. Send photos of local rural scenes, farm animals, and more by June 1 to Photo Contest, Mass. DAR, 251 Causeway Street, S. 500, Boston, MA 02114. For more information, e-mail to Richard.LeBlanc@state.ma.us. The twelve winners will be featured in the 2012 Mass. agriculture calendar and posted on MAC's website. For details visit www.mass.gov/agr/.

To receive more information, add a name to our mailing list or give us your comments:

**Mass. Agriculture
in the Classroom**
P.O. Box 345
Seekonk, MA 02771



call Debi Hogan
at 508-336-4426
fax: 508-336-0682
e-mail to debi.hogan@earthlink.net
Website: www.aginclassroom.org

Seekonk, MA 02771
P.O. Box 345
in the Classroom
Massachusetts Agriculture

