MASSACHUSETTS FLOWER GROWERS' ASSOCIATION
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The

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Massachusetts Flower Growers' Association

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Natural Ventilation in Hoophouses

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Roll-up sides and drop-down curtains are low-cost vent systems that can be installed in most hoophouses. These systems operate on the principle that heat is removed by a pressure difference created by wind gradients. A wind speed of 2-3 miles per hour is adequate to force cool air in the windward sidewall. The air traveling over the greenhouse creates a vacuum on the leeward side to pull the heated air out.

In both systems, a rail, either wood or metal extrusion, is attached to the greenhouse frame 3′ to 5′ above the base board. Rails are usually attached on both sides of the greenhouse to allow for cross ventilation. The plastic over the top of the greenhouse is attached to the rail to form a seal for air inflation.

In roll-up systems, the remaining material becomes the vent. The bottom of the plastic is attached to a piece of steel tubing with clips or batten strip. A two-piece roll bar that clamps the plastic is available from Advancing Alternatives, Inc., Schuylkill Haven, Pennsylvania. To open the vent, the tubing is rolled up with a hand crank or vent motor. Opening the vent introduces cool air at the bottom, which may or may not be desirable depending on the placement of the crop in the greenhouse.

In drop down systems, cool air is introduced at the top of the curtain allowing it to moderate before it reaches the plants. The bottom of the curtain wall material is attached to the baseboard with a batten or aluminum extrusion and the top is attached to the steel tubing. The curtain is lowered or raised by a system of cables and pulleys that are attached to either a manual or motorized winch. A separate sheet of plastic is frequently used for the curtain. This material can be a 4-year copolymer film or it can be a heavier material such as a reinforced polyethylene or polyvinyl.

Another drop down system utilizing inflated poly tubes is available from Poly-tex, Inc., Castle Rock, Minnesota. The poly tubes, held in place along the sidewall with retainers, are inflated in two stages by small blowers to provide two levels of ventilation. A back-up generator is needed to handle power interruptions.

The Basics of Plant Problem Diagnosis Training
April 8, 2008 - 10:00 am to 3:15 pm
Darling's Restaurant, Seekonk, MA
Contact Paul Lopes 508-295-2212 x24 or
Tina Smith 4134-545-5306 for more information

Natural ventilation is better

Roll-up and drop down systems have several advantages over fan systems.

- Eliminating the fans reduces the electric bill, a nice bonus in a time of increasing rates. Fan cooling for a typical hoophouse operated spring, summer and fall is 8 - 10¢ per square foot based on 12¢ per kilowatt hour.
- During warm weather, the temperature inside the greenhouse can be maintained within a degree or two of outside. Unlike fan ventilation where the temperature at the fan end is 8 F to 12 degrees F warmer than the intake end, natural ventilation will provide uniform temperature throughout the greenhouse. The best cooling is achieved where the greenhouse is not obstructed by other buildings and is orientated to receive the summer breeze.
- Opening the sidewall allows easy accessibility for moving plants into or out of the greenhouse.
- There is a reduction in noise if fans are not used.

A tight seal is important

Air leaks can be a problem, especially on windy days. There are systems that reduce infiltration including (a) installing plastic over the first frame on each end to form a seal, (b) attaching Velcro to the outside frames and an adhesive backed felt strip to the plastic, (c) inflating a polytube attached to the end frames and (d) installing a curtain pocket.

To seal the bottom of a roll-up system, the bottom of the curtain can be lowered onto a shelf made of wood or metal that seals along the entire length. A continuous extrusion manufactured by Advancing Alternatives, Inc. can be installed to fully seal the bottom of the curtain. On drop-down systems the curtain is drawn up into a pocket or hood that sheds rain and snow and forms a tight seal.

To keep the curtains from billowing out in the wind, a retainer is needed along the side of the greenhouse. It needs to be firmly attached at the rail and baseboard as there is considerable pressure built up on the curtain in a heavy wind. Several methods are used.

1. Retainer clips attached at the rail and baseboard allow nylon or polypropylene cord to be laced into zigzag pattern.

2. Curtain brackets made from 1″ conduit or tubing placed at 4′ to 5′ intervals makes a permanent installation and allows easy access through the wall for materials handling.

3. Polypropylene strapping, 2″ to 4″ wide, attached vertically every 4′ to 6′ gives good support and reduces wear on the curtain.

Some growers have installed a double layer of poly curtain and inflated it to reduce heat loss. This also reduces the rippling effect of a single layer material and the associated wear.

Methods for raising and lowering the curtain

The simplest method for opening a roll-up curtain is a hand crank. Adding a universal joint allows the crank to be operated in any position.

To reduce the job of raising long, heavy curtains, a gearbox assembly that rides on tubing or a rail can be used. Usually the gearbox has a ratio of 10 or 15 to 1. Operation of the gearbox can be either manually with a crank or powered with a battery-operated drill.

Motorized gearboxes and tube motors are available that can be controlled by thermostats, humidistats, timers or a controller. Cost is around $1000. Limit switches that provide stops at the top and bottom are needed.

Drop down curtains are frequently operated with a winch. A series of vertical support cables are attached to the tubing in the top edge of the curtain. Usual spacing is at least one foot more than the height of the curtain. The other end of each cable is drawn through a pulley and then clamped to a main control cable. The main cable is supported by pulleys at each end. One end of the main cable is attached to the winch. A counterweight is attached to the far end to maintain tension and to lower the curtain evenly. The cables, clamps and pulleys should be stainless steel for trouble-free operation. The size of the winch is determined by the length of the curtain. One with two-way operation is desirable. Electric winches allow automatic ventilation. They are available in 120 volt and 12 volt models. Limit switches and a thermostat are needed.

Growers with hoophouses have found that roll-up and drop down curtain systems work well for warm season ventilation. A location with good summer breezes and plenty of space between houses will allow the temperature to remain within a degree or two of outside. The curtains need to have a tight seal if the greenhouse will be heated during the winter.

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Mass Farm Energy Program Offers Energy Cost-Savings Help for Farmers

With many Massachusetts farmers struggling with escalating energy costs, the new Massachusetts Farm Energy Program MFEP is offering ideas for energy efficiency improvements and alternative and renewable energy projects that were not cost effective only a few years ago.

“Many Massachusetts farmers are not aware of existing energy resources that are currently available to them, and

most are free. The Mass Farm Energy Program is now working hard to change that," says Darlene Monds, coordinator for the Berkshire-Pioneer Resource Conservation and Development (RC&D) area, which is administering the MFEP in partnership with the Patriot RC&D Area, the Massachusetts Department of Agricultural Resources and the USDA Natural Resources Conservation Service

The Berkshire Pioneer RC&D launched a new website last featuring MFEP resources. According to Monds, the goal was to design an elegant, easy-to-navigate site that is easily accessible for dial-up users and get it on-line quickly to serve the many local farmers who are keenly interested in energy information.

The web site is available for farmers looking for information about the Mass Farm Energy Program and serves as a clearinghouse for farmers to get the help they need in pursuing energy efficiency and renewable projects," says Monds.

One of the first MFEP publications is an information sheet titled "What you can do to start saving money and prepare for the Mass Farm Energy Program — at no cost to you!" It provides concise, step-by-step information about existing energy programs and services available to Bay State farmers and agribusiness, including energy audits, incentives, and grant opportunities.

For more information or to apply for services offered by the Massachusetts Farm Energy Program, visit www.berkshirepioneerrcd.org/mfep or contact Darlene Monds, RC&D Coordinator, or Ann Gibson, Program Assistant, at 413-256-1607.

The web site will also help farmers navigate free energy programs available through electric and gas utilities, as well as grant and loan programs available from state and federal agencies, to help them plan energy efficiency improvements or renewable energy projects.

"In many cases, farmers can use one or more programs to leverage funding for another program," explains Monds. "Of course, timing is everything and that's why this information is being distributed now, at the beginning of a new funding cycle for many of these programs."

By combining utility industry programs and the USDA Rural Development (RD) energy grant programs, a farmer could get as much as 75 percent cost-share for implementation of energy efficiency improvements. The same applies to alternative and renewable energy projects that may qualify for grant programs offered by the Massachusetts Technology Collaborative and the RD energy programs.

"For some farming operations, alternative and renewable energy projects may be the key for long term sustainability," says Monds. "Taking advantage of multiple grant programs can make a project affordable."

Monds points out that many programs, such as the state's Farm Energy Discount program, which provides farmers a 10 percent discount for electric and natural gas, are underutilized. The energy conservation programs offered by the electric and gas utility industries are also underutilized by farmers and agribusiness.

The MFEP is currently offering grant writing assistance to farmers who want to apply to the USDA RD energy programs. Eligibility information and an on-line application are available on the Berkshire-Pioneer RC&D website.

The Massachusetts Farm Energy Program is a joint project of the Massachusetts Dept. of Agricultural Resources, the USDA Natural Resources Conservation Service, Berkshire-Pioneer Resource Conservation & Development Area and Patriot Resource Conservation & Development Area. This two-year program will provide assistance to farmers and agribusiness to increase on-farm energy conservation and efficiency, promote alternative and renewable energy strategies, and reduce agricultural greenhouse gas emissions.

RC&D is a program administered by the USDA Natural Resources Conservation Service. Working through locally-led independent non-profit RC&D councils, the program helps communities promote the conservation, development and use of natural resources to improve the local economy and to enhance the environment and standard of living in the community.

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Winter Meeting Draws 200 Plus Attendees

Paul Cavicchio Greenhouses hosted the MFGA/UMass Winter Flower Growers meeting on Februrary 20th. The highlights of the meeting were touring the Cavicchio greenhouse range and listening to Jake Cavicchio speak about the installation and operation of the wood-chip boilers.

Also speaking at the meeting were Doug Petersen, Commissioner of Agriculture, Gerry Palano, Energy Coordinator, DFA, Chris Schlegel, D.S Cole Growers, Susan McCoy, Garden Media Group, Leanne Pundt, University of Connecticut and Eric Dahlberg, Mass State Health Agency.

Awards were presented to Tina Bemis for Distinguished Service and Gary Briggs for Achievement.

During the Association Business meeting several new members were voted onto the Board of Directors. They include Cynthia Bertrand, The Farmers Daughter, Auburn; Mike Dalrymple, Northbrook Greenhouses, Berlin; Jason Hutchins, The Flower Hutch, Townsend and Bob Hawkes, Griffin Greenhouse and Nursery Supplies.

Completing their serves to the Association as board memeber are Matt Hamel, Fafard, Inc. Kim Annese, Webster Nursery, David Weidman, King Farms and

Harriett Hutchins, The Flower Hutch. Special thanks to these individuals for their service to the industry.

We also thank the Cavicchio family and their staff for a great meeting.

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Association Showcases Massachusetts Flower Industry at Ag Day

On March 18th hundreds of farmers and representatives of agricultural organizations converge on Beacon Hill for Massachusetts Agriculture Day at the State House, meeting with legislators to discuss farming issues and to celebrate the multi-million dollar impact agriculture has on the state's economy.

From maple sugar in the Berkshires to apple orchards on the North Shore and cranberry bogs on Cape Cod, the Massachusetts farming industry is vast and vibrant, generating over $416 million in revenue each year.

Farmers met with their state representatives and senators to discuss the challenges they face. State officials used the opportunity to commend the agricultural industry which, in addition to its economic contribution, protects 518,000 acres of open space with over 6,000 active farms.

"Farms are a vital part of the Massachusetts landscape," said Energy and Environmental Affairs Secretary Ian Bowles. "We are pleased to work with the agricultural community to sponsor this event devoted to supporting the long-term viability of such an important sector of our economy."

"Agriculture Day helps to raise awareness among legislators and the public about what agriculture has to offer Massachusetts," said Department of Agricultural Resources (DAR) Commissioner Doug Petersen.

Fred Dabney, David Volante and Bob Luczai presented state officials with flowers complements of Nunan's Florist & Greenhouses in Georgetown and Olson's Greenhouses in Raynham.

New England Greenhouse Conference Incubator Exhibitor Space Available

November 5-7, 2008, DCU Center, Worcester, MA

NEW THIS YEAR: The New Greenhouse Conference & Expo has designated an area on the trade show floor for first-time exhibitors who are either new to the industry or are start-up businesses. This area of the show will be juried, and applications will be reviewed by a panel of University Extension representatives.

Businesses will be screened using the following criteria in order to qualify:

- Your business is new to the greenhouse/garden center industry within the past 3 years;
- You are a start–up business;
- You have never exhibited at a trade show in this industry;
- Your products are relevant to the garden center/greenhouse industry;
- The booth fee is $350 if received by 7/1/08, or $500 after 7/1/08, and is due upon acceptance to the show.
- Exhibit spaces will be 5′ deep and 8′ wide, and do not include a table or carpet.
- Exhibitors will be matched with University Extension representatives for assistance with marketing strategies and display tips.

For more information contact Cindy Delaney, Conference Coordinator, at (802) 865-5202 or via email cindy@delaneymeetingevent.com

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Nasami Farm gets $100,000 grant

by Cris Carl, The Recorder

Nasami Farm will soon be building a new facility with the help of a $100,000 grant from the state.

Gwen Stauffer, executive director for the New England Wild Flower Society in Framingham, with whom Nasami Farm is associated, said Wednesday that the new building will be a ''resource center.'' Besides providing office space for staff, they will be able to have information areas and workshop space for the public.

"People can come and learn more about how to grow and cultivate native plants," said Stauffer.

Stauffer said that Nasami Farm is gaining a reputation for its native plants and that people are beginning to come from out of state to learn about and buy native plants. "We're part of that community now and this is a way we can contribute to the local economy,'' said Stauffer.

One of the goals of teaching more people about how to cultivate native plants is to reduce the numbers of people who take plants from the wild, which is damaging to the environment, said Stauffer. In addition, the farm has been starting to work on nature trails that will be open to the public.

Stauffer said that the new resource center will be a way to introduce people to native plants and the diverse habitats that are on the property. The goal is also to teach people about conservation in general.

"Funding for the environment is shrinking dramatically and we want to get more native plants out there," she said. The grant is part of an economic stimulus initiative of the Massachusetts Cultural Council. The award was celebrated at a statehouse ceremony.

The "Bricks and Mortar'' grant, which requires and has

already been matched by private or public funds, can only go towards a building project. Stauffer said that they will continue to need further financial support from donors to fund the construction of the building. She added that they will be meeting with an architect next week to begin design work. The project must be completed by February 2010. Stauffer said she expected the project to be completed long before that time.

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MFGA Member Richard Bonanno Appointed to EPA Agriculture Advisory Committee

The EPA has named the new members of the first-ever Federal Agricultural Advisory Committee (FACA) – including a New England representative from the town of Methuen, Massachusetts.

The committee is an important part of EPA's ongoing effort to strengthen relations with the agriculture community. It will advise EPA Administrator Stephen Johnson on environmental policy issues impacting farms, ranches, and rural communities, and will operate under the rules of the FACA. The first meeting of the committee will take place March 13 and 14, 2008 at The Madison Hotel in Washington, D.C.

"Agriculture is a crucial component of our society, and of our efforts to be good stewards of the nation's land, air and water," said Robert Varney, regional administrator of EPA's New England office. "The new agricultural advisory committee will play an important role advising EPA."

The New England representative to the advisory committee, Dr. Richard Bonanno of Methuen, is a specialty crop producer who owns and operates a fresh market vegetable and greenhouse called Pleasant Valley Gardens. He also serves as a Senior Extension Specialist at the University of Masschusetts Extension with responsibilities for vegetable and small fruit weed management recommendations.
"As the sole representative from Region 1, I look forward to the opportunity to represent and discuss the many diverse agricultural issues within New England as well as the issues of specialty crop growers everywhere," said Dr. Bonanno. "I applaud the efforts of the Administrator to improve communications between EPA and the agricultural, forest, and rural communities. It is important that EPA weigh the needs of both producers and the environment, to protect the environment while still encouraging and sustaining domestic production of food and fiber."

Initially, EPA will ask the committee to focus on the following three issues:

- How EPA's policies and regulations on climate change and renewable energy will affect the agriculture community. The agricultural industry – through the development of renewable energy sources can play a significant role in the nation's ability to reduce its greenhouse gas emissions and its dependence on oil imports.
- An environmental strategy for managing waste from livestock operations that considers regulatory and voluntary approaches, and provides tools for producers to attain superior environmental performance.
- Development of a constructive proach to advancing sustainable agriculture, protecting the environment, and addressing communication between environmental and agricultural interests.

The committee members represent: large and small farmers, ranchers, and rural communities; rural suppliers, marketers, and processors; academics and researchers who study environmental issues impacting agriculture; and, environmental and conservation groups.

The committee is being developed as part of a National Agriculture Strategy that began in May of 2006. That strategy seeks to engage agriculture in cooperative, collaborative, and innovative ways, in addition to the traditional regulatory programs the agency administers.

New England Grows 2008

More than 14,250 green industry professionals attended New England Grows was held at the Boston Convention & Exhibition Center February 6-8, 2008.

On the first day, all-new "Master Class" sessions buzzed with energy as New England Grows attendees took in a special educational program aimed at experienced green industry professionals. Highlights included a riveting presentation from Zane's Cycles' founder Chris Zane, who shared insights on the importance of creating lifetime customers. "This is a unique event," said Greg Schaan, president of New England Grows. "Every year, thousands of green industry professionals come to Boston to experience New England Grows where they find the best new ideas, the finest networking opportunities, and the most innovative solutions in the marketplace today."

In its 16th year, New England Grows further extended its ability to do good for the industry and beyond. During this year's event, New England Grows contributed $400,000 to the six New England Cooperative Extension systems.

Joe Figueiredo Passed Away

Joseph B. Figueiredo, 93, passed away Sunday, January 20, 2008 at St. Luke's Hospital after a brief illness.

Joe was born in New Bedford and lived in Westport for 44 years. A veteran of WWII, he served his country in the United States Army, earning the European, African and Mid East Theater Campaign Ribbons with 3 Stars and the WWII Victory and Honor Service Ribbons.

In 1946, he founded Figueiredo's Greenhouses on Hathaway Road in New Bedford and re-located to Pine Hill Road in Westport in 1964 where the family business continues. Mr. Figueiredo was a longtime member of the Massachusetts Flower Growers Association, Mass Farm Bureau, VFW Post 1531 and the American Legion Post 145 of Westport.

Terry and Theresa-Marie Pimental, Joe's son-in-law and daughter have managed the business in Westport for several years.

Meet Your Members

Volante Farms was started in Newton, MA by Peter and Catarina Volante in 1917. Originating as a truck farm, they delivered to the Boston Produce Market every morning. In 1962 Ferdinand and Anne Volante moved the farm to Needham and primarily grew broccoli, tomatoes, celery, and a variety of annuals and perennials. Their son Al built several hoop houses and an updated farm stand on this property in the 70s.

Today, Volante Farms is run by Al, his wife Melodie, their three children, and a crew of dedicated employees. Their eldest son, Dave, graduated from Babson College with a Management degree in 2003. Their daughter Teri graduated in 2007 from the University of Connecticut with a degree in Management as well. The youngest, Steven, is currently a student at Boston College, working full-time in the summer and part-time during the school year. Melodie usually works in the office taking care of billing and other bookwork.

Volante Farms is a "place for all seasons" and prides itself on offering a variety of seasonal products throughout the year. In the spring, the greenhouses are packed with annuals, perennials, and vegetable plants. In the summer, homegrown produce fills the farm stand. Autumn presents a variety of pumpkins, mums, and over 40 varieties of native apples. Christmas trees and wreaths are sold in the winter, along with poinsettias and giftsfrom festive shop.

In February the Volante family finished construction on a beautiful 120 by 120 foot Westbrook gutter-connected greenhouse which was started in June 2007. The Volantes' primary objective is to grow higher quality plants in this improved structure while leaving a smaller environmental footprint by conserving energy and recycling rainwater. They hope this new structure will also serve as an educational tool for all growers. The grand opening of the greenhouse in spring 2008 is a testament to the hard work of all past and present employees who helped make it possible.

Position Available

Wanted experienced farm stand/garden center worker for job in Needham, MA at retail farm. Customer service experience critical.

Please contact Dave at (781)444-2352 or email dave@volantefarms.com.

Annual and Perennial Inside Sales

We are in search of a full time year round annual and perennial inside sales individual.

This successful individual wil have experience in:

- Developing and nurturing relationships with customers
- Understanding customer and employee needs
- Reaching mutually beneficial business decisions
- Working well with the other groups within the organization for the benefit of customers and employer (i.e. growers, production)
- Receiving incoming customer calls and processing customer orders correctly and timely
- The knowledge of annuals and perennial plants

The successful individual will also:

- Have the desire and knowledge to expand business with every existing customer as well as to develop new customers.
- Be someone with vision for continuing to grow and nurture the annual and perennial business not soley for today, but as trends change.
- Be someone who is looking for a career and interested in and growing with Cavicchio's.

This position is accompanied by a complete benefit package upon eligibilty. To apply, please send resume and cover letter to:

Cavicchio Greenhouses, Inc., Human Resources, 110 Codjer Lane, Sudbury, MA 01776, jobs@cavicchio.com or fax to 978-443-5440

For other career opportunities visit our web site www.cavicchio.com