Salvia Grows Well in Cranberry Pomace Mixes

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Successful commercial trials with cranberry pomace as a growth medium amendment have been conducted in Massachusetts for several years. Growers have produced crops such as hardy mums, poinsettias, flowering hanging baskets and mix containers of flowering annuals. These trials have shown the promise of using cranberry pomace as a component in growing media and have familiarized growers with its use. Projects at UMass studying plant growth response to pomace mixes under controlled conditions have also shown positive results (Cox and Lopes, 2007). This is a brief report of work looking at the response of salvia to cranberry pomace growing media. It’s part of a larger project supported by a grant from The New England Greenhouse Conference.

How the plants were grown

Two types of cranberry pomace were tested. One type consisted of pomace composted for about 3 years (“old”) resulting in an appearance and consistency something like coffee grounds. The initial pH and EC of this material was 5.5 and 0.57 mmho/cm, respectively. The second type of pomace was about 6 months old (“new”) and was not completely composted as seeds and fruit skins could be seen. The initial pH and EC of this was 5.8 and 0.88 mmho/cm, respectively.

Plugs of ‘Empire II Mix’ salvia were obtained from a commercial propagator and transplanted to 4-inch pots of Fafard 3B (control) and pomace growth media on 2 October 2007. Plants were fertilized at every watering with 180 ppm N from Technigro 17-5-24 alternating with 15-0-15.

Pomace growth media were formulated with “old” and “new” pomace at 25, 50, 75, and 100% were mixed with sphagnum peat moss on a volume basis. Dolomitic limestone at 5 lb./yd3 was added to the pomace media. There were 8 single-plant replicates per treatment and the control. On 22 December, foliar height (height measured to the top of the foliage) and total plant height (measured to the top of the flower stalk) were measured and the tops were harvested for dry weight determination.

Results

Data analysis revealed no significant differences in foliar height, total height or dry weight between treatments (Table 1). Growing salvia in old or new cranberry pomace resulted in plants no different from the Fafard 3B control regardless of pomace level. There were no differences in appearance between pomace treatments and the control plants. Looking at the data, it might seem that there were some differences between treatments (e.g., height of 25% old pomace vs. control), but
these differences were due to variability between plants in the treatments. The existence of this variability might have been due to the fact that the plants were from a seed mix.

Results of this study with salvia were very similar to earlier experiments with *calibrachoa* and geranium (Cox and Lopes, 2007) and grower trials with other crops across Massachusetts. In general, cranberry pomace is an acceptable amendment for greenhouse growing media.

**Reference**

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### Table 1. Growth of salvia in cranberry pomace-amended media.

<table>
<thead>
<tr>
<th>Growth medium</th>
<th>Foliar height (cm)</th>
<th>Flower height (cm)</th>
<th>Dry weight (gm)</th>
<th>Foliar height (cm)</th>
<th>Flower height (cm)</th>
<th>Dry weight (gm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fafard Mix 3B (no pomace)</td>
<td>17.1</td>
<td>25.0</td>
<td>6.7</td>
<td>15.3</td>
<td>20.9</td>
<td>6.7</td>
</tr>
<tr>
<td>100% pomace</td>
<td>16.2</td>
<td>22.8</td>
<td>6.2</td>
<td>14.7</td>
<td>23.0</td>
<td>6.4</td>
</tr>
<tr>
<td>75%</td>
<td>16.6</td>
<td>23.2</td>
<td>6.2</td>
<td>17.5</td>
<td>24.5</td>
<td>7.8</td>
</tr>
<tr>
<td>50%</td>
<td>14.9</td>
<td>21.1</td>
<td>6.5</td>
<td>17.9</td>
<td>23.5</td>
<td>6.5</td>
</tr>
<tr>
<td>25%</td>
<td>15.3</td>
<td>20.9</td>
<td>6.7</td>
<td>16.3</td>
<td>23.4</td>
<td>6.8</td>
</tr>
</tbody>
</table>

**Other Educational Programs:**

**Plus**
- Trade Show
- Pesticide Credits
- Tours of the famous Castle Hill, The Crane Estate

The Great Ideas Summer Conference
July 23, 2008
Castle Hill, The Crane Estate, Ipswich, MA

Massachusetts Flower Growers Association and the Massachusetts Nursery Landscape Association join for their fifth annual collaborative event, the 2008 Summer Meeting and Trade Show on Wednesday, July 23, 2008 at one of the region’s most scenic, historically important and ecologically diverse landscapes—Castle Hill, The Crane Estate.

The program will feature Judy Sharpton, Growing Places Marketing, Atlanta, Georgia. Judy has over 20 years experience in advertising and promotion, specializing in store design and renovation, development of product-based promotion plants and development of customer communication programs. Judy will present a two-part Store School, covering consumer trends and how you can respond to trends at your store level and store layout from entrance to cash wrap.
Overview of Funding for Energy Improvements by Mary Greendale

Farm Service Agency of USDA
FSA make direct and guaranteed loans to family farmers who cannot obtain commercial credit from a bank, a Farm Credit System institution, or other lender. This money can be used to buy equipment and make farm improvements. FSA typically funds new farmers or established farmers who have suffered setbacks (your heating costs should qualify). Direct farm ownership and direct farm operating loan maximums are $200,000 for one to seven years, rates based on the agency’s borrowing costs. You need to talk to one of the FSA offices directly to determine eligibility. http://offices.sc.egov.usda.gov/locator/app?state=ma&agency=fsa

Natural Resources Conservation Services of USDA
The NRCS program emphasizes innovation. The agency wants to stimulate the development and adoption of innovative conservation approaches and technologies in agriculture and leverage Federal funding. The federal program can fund large projects up to $1,000,000, but typically they run about half that or less. You need a 50% match from non-federal sources, cash or in-kind. For more information - http://www.ma.nrcs.usda.gov/programs/EQIP_Mass_brochure.pdf

Small Business Administration

Loan proceeds can be used for equipment, furniture and fixtures, land and building (including purchase, renovation and new construction), leasehold improvements, and debt refinancing (under special conditions). Loan maturity is up to 10 years for working capital and, generally, up to 25 years for fixed assets. Start-up and existing small businesses are eligible and can obtain funds through qualified commercial lending institutions. The lender and SBA share the risk that a borrower will not be able to repay the loan in full. There is a maximum loan amount of $2 million dollars. SBA’s maximum exposure is $1.5 million. Thus, if a business receives an SBA guaranteed loan for $2 million, the maximum guaranty to the lender will be $1.5 million or 75 percent.

Massachusetts’s Agency Programs
The Massachusetts’s Technology Collaborative has several programs that might be helpful depending on the kind of project you want to do.

Commonwealth Solar
This new initiative provides rebates to businesses, nonprofits, public entities, and other organizations on a first-come first-served basis for design and construction of solar photovoltaic (PV) energy projects that are up to 500 kilowatts in size. For more information http://www.masstech.org/solar/

Large Onsite Renewables Initiative
This initiative provides grant funding, through a competitive process, to assist with feasibility studies design and construction of renewable energy projects, including wind energy, hydroelectric, and biomass energy. Projects must have an installed capacity of greater than 10 kilowatts and consume more than 25% of the renewable energy generated by the project onsite. Grant levels vary based on the characteristics of each project.


Small Renewables Initiative
This initiative provides rebates on a first-come first-served basis to businesses and institutions of up to $50,000 for design and construction of wind or hydroelectric energy projects that are up to 10 kilowatts in size. Rebates vary based on the characteristics of each project. For more information http://www.mtpc.org/renewableenergy/small_renewables.htm

Clean Energy Choice®
The MTC’s Clean Energy Choice® program allows your business to purchase electricity from renewable sources, which, in turn, generates matching grants for your community. Your town or city can receive up to one dollar in funding for each dollar residents spend on clean energy. This money can be used to fund clean energy projects. For more information http://www.masstech.org/CleanEnergyOrg/index.htm

Mass Department of Housing and Community Development - Economic Development Fund
This is a federally funded program operated by the state and provides flexible “gap” debt and equity financing. You must live in a community that has fewer than 50,000 people (this is a different definition from the similar one from Rural Development). You must also be able to document that you will create or retain jobs for low and moderate income people. You must work cooperatively with local government officials, because the loan is made to you through the town. Loans run between $100,000 and $1,000,000. Rehabbing your greenhouses would be eligible. http://mass.gov/Ehed/docs/dhcd/cd/edf/loans.rtf

USDA Resource Conservation District
The Berkshire/Pioneer RC&D provides technical assistance to growers, at no charge. They will guide you through the process of completing the Rural Development Renewable Energy Systems application and assembling the necessary documents. This is a statewide program; contact Ann Gibson at the Resource Conservation District office in Amherst MA. agibson.rcd@verizon.net
Building a Network Among Farmers in Massachusetts

This Spring UMass Extension is beginning a project that will focus on using locally grown shelled corn as an alternative fuel to heat greenhouses. Corn is a renewable heat source that can be grown and used in Massachusetts more inexpensively than fossil fuels. At current prices, corn compares favorably with standard fossil fuels that are used for heating greenhouses.

Shelled Corn Production in Massachusetts

The production of shelled corn for feed was largely abandoned in New England because of inexpensive corn available from the Midwest. As the cost of corn from outside the region rises along with the cost of fossil fuels, the equation shifts. Several dairy and vegetable farmers in Massachusetts who have returned to the production and use of shelled corn for feed and/or for heat are finding a positive net income from their investments.

Former and current dairy farmers can use or sell shelled corn for either feed or fuel. Vegetable farms that have started growing grain corn find that it benefits their crop rotation systems, reduces their cost of fuel for greenhouses, and provides them with a new crop to sell. The shelled corn project will help develop the necessary links between producers and users and evaluate the cost and benefits for both.

Although shelled corn is not the only viable choice as a source of biomass for fuel, it does have many advantages. It is one of the most clean-burning fuels, producing few particulates, no carbon monoxide or environmental pollution. Corn sequesters carbon in a single growing season, making rapid use of solar energy. The ratio of fossil fuels invested (as fertilizer and fuel to grow, harvest, dry, store and transport) for energy gained (as BTUs of heat) ranges from 1:5 to 1:10 depending on yield, quality, weather and other factors. Fertilizer inputs can be partially offset with organic sources such as manure and legume cover crops. When grain is harvested, over half of the biomass is returned to the soil, helping build organic matter. As an annual crop, grain corn provides flexibility for selecting fields and can be worked into existing rotation strategies on vegetable and dairy farms. On vegetable farms, corn is a valuable rotation crop because it is not susceptible to the same diseases and insect pests as cucurbits, tomatoes, peppers, or most other vegetables. Cucurbits (squash, pumpkins, melons and cucumbers) comprise nearly 40% of our vegetable acreage, and are subject to a growing number of serious diseases. Growing fuel corn as part of a rotational system allows growers to take fields out of production of these crop groups while still providing income.

The Shelled Corn Project

The UMass Extension team working on this project includes Vegetable Specialists Ruth Hazzard and Andy Cavanagh, Floriculture Specialist Tina Smith, Livestock/Dairy Specialist Masoud Hashemi and Agricultural Economist Dan Lass. We also have a group of advisors, including Agricultural Engineer John Bartok, who have expertise relevant to the project. We will work with farmers to build at least two model networks in the Connecticut Valley and in Central/Northeastern MA. Producers and users will work together to establish an economically viable, sustainable system for producing and/or using shelled corn as a crop for greenhouse heat. Each of these networks will consist of at least one corn producer and at least four greenhouse growers (fuel users), but more participants are possible. We will provide limited cost sharing to help up to ten participating growers purchase and install the equipment necessary to burn corn in return for their help in evaluating this system and promoting the resulting information. We will also provide cost share to several producers, to help with infrastructure costs for combining, drying or transporting shelled corn.

We also plan to host several education programs with topics on alternative energy and state and federal programs to help growers make the transition to sustainable energy sources. An on-farm meeting will also be held to highlight a shelled corn producer and a nearby greenhouse grower who burns corn.

This project is supported by funding from the Agricultural Innovation Center, Massachusetts Department of Agricultural Resources, University of Massachusetts College of Natural Resources and the Environment, and University of Massachusetts Extension.

For more information or an application form on the shelled corn project, contact Andy Cavanagh, 413-577-3976, acavanagh@psis.umass.edu.

The AG Tag Kicks in to High Drive for Spring

The Massachusetts Department of Agricultural Resources (MDAR) has launch of its Ag Tag spring kick-off campaign with the goal to have 1500 plates reserved by August. If the target goal is made, the agriculture specialty license plate will take its place alongside sixteen other plates currently offered by the Registry of Motor
Vehicles (RMV). Proceeds from the plates will go to the Massachusetts Agriculture Trust Fund in support of innovative programs to further the sustainability and vibrancy of the agricultural community.

The Ag Tag recently received a mini make-over that features the new tagline “Go Locally Grown!” The change was made to better capture the exponential interest in buy local initiatives throughout the state. MDAR is currently updating brochures, its website information, and is planning an aggressive campaign this summer to work with commodity groups and local farmers’ markets to promote the plate.

“The Ag Tag will be a moving billboard seen by thousands of drivers every day. It’s an excellent way to positively brand the Massachusetts agricultural community,” said Commissioner Doug Petersen.

The initial cost to transfer registration to an Ag Tag is $40. There is an additional $20 exchange fee when the actual plate is picked up from the RMV. Renewals are $81 every two years ($41 RMV registration fee and $40 for the specialty plate fee that continues to go to the Trust Fund). A reservation form can be downloaded at www.mass.gov/agr/agtag/index.htm.

For more information on the Ag Tag, contact Anna Waclawiczek at 617.626.1703 or Anna.Waclawiczek@state.ma.us.

2008 OFA Short Course: Learn, Grow and Connect

The Association of Floriculture Professional will host its annual OFA Short Course July 12-15, 2008, in Columbus, Ohio. The floriculture industry’s premier event promises to be even better than years past, with several new attractions and even more opportunities to enhance your skills!

The theme Learn, Grow and Connect couldn’t be more appropriate for the 2008 OFA Short Course, after all, this is what people have been doing at Short Course for almost 80 years. So what does that theme mean for today’s attendee?

Learn – New products are introduced to the industry each year, and the annual OFA trade show is the place to learn all about them. Totaling more than 7 acres, this year’s trade show has more than 1,500 exhibit spaces showcasing products for all kinds of green-industry businesses, from retail to nursery to greenhouse.

Grow – With more than 130 educational sessions, you’ll have plenty of opportunities to grow your business, knowledge and personal skills. Covering every facet of the green industry and drawing on leading researcher and seasoned industry professionals, the four-day education session has something for everyone.

Connect – The approximately 10,000 exhibitors and attendees that will fill the trade show floor and session halls of the 2008 Short Course are some of the best and brightest the green industry has to offer. You’ll have an opportunity to connect like never before, whether in panel discussions or hallway conversations or after-hours networking events. This is the place real business is done and knowledge is gained, so don’t miss these opportunities to connect like never before.

New at the Short Course

In addition to offering the education, trade show, and networking opportunities the OFA Short Course has become famous for, there are several new attractions this year that give even more reason to attend.

Merchandising Display – If you’re curious about what the retailers are doing to increase sales, you’ll definitely want to check out the new merchandising display area. This interactive section will allow attendees to get involved while learning about the top merchandising tips and trends.

Sustainability – With five Monday educational sessions, the Town Hall Meeting, and an area devoted to environmentally responsible products, this will be a major new focus for the 2008 Short Course. Similar to the New Products area, the Project: Green Planet area will feature new products but only those considered to be eco-friendly. With so much interest in sustainability and transitioning to more ecologically friendly production and business practices, the Sustainability focus might just be one of the most popular and anticipated features of the 2008 Short Course.

ANLA Annual Meeting – Following the trend for a more holistic view of the industry this year, Short Course will host the American Nursery and Landscape Association’s (ANLA) Annual Conference. ANLA leaders will arrive early for their 3-day meeting to be held July 11-13, then join OFA in educational sessions and on the trade show floor.

The OFA Short Course will attract approximately 10,000 exhibitors and attendees from around the world to take advantage of this premier educational and trade show event. Learn, Grow, and Connect at the 2008 OFA.

For additional information, contact OFA at 2130 Stella Court, Columbus Ohio USA 43215-1033. Phone: 614-487-1117; fax: 614-487-1216; e-mail: ofa@ofa.org; online: www.ofa.org
Agricultural Chemical Collections for Massachusetts Producers of Agricultural Products

FREE collections of agricultural chemicals for Massachusetts producers of agricultural products are being sponsored by Cape Cod Cooperative Extension, collaborating with the Massachusetts Department of Agricultural Resources and Enviro-Safe Corporation. Dispose of no longer registered and unused agricultural chemicals while there is no cost to you!

In order to participate, participants will need to complete the DISPOSAL RESPONSE FORM and return it two weeks before the collection date. Participate in any of the collections on the 2008 schedule of collections, but transport no more than 55 gallons or 440 pounds of product at one time. This information and other information about accumulation, storage and transportation of hazardous materials is available at www.capecodextension.org/home.php. Click on the link AgPesticides in the Environmental Conservation text.

Contact Marilyn B. Lopes, Extension Educator, Water Quality, Cape Cod Cooperative Extension PO Box 367 Barnstable, MA 02630-0367 Phone: 508-375-6699 Cell: 774-487-8802 Fax: 508-362-4518; E-mail: mlopes@umext.umass.edu

Comments from the Industry

Early Spring Sales 2008

In early May several growers and garden center owners were asked for comments about sales during the months of April and early May. Here is what they had to say!

Sales are off to an encouraging start despite the high costs of energy and consumer goods our customers are facing. Premium niche combination planters and other unique items still attract customer interest, but sales of more “commodity” type plants may not be as brisk.

David Giurleo, Colonial Gardens, Concord

Easter was only so so, not in terms of volume but in terms of price. Price pressure from Canadian imports, especially with supermarkets and at the Boston Wholesale Flower Market remains a problem. Sales of field dug phlox and early sales for Mother’s Day have been strong. I am optimistic.

Rich Bonanno, Pleasant Valley Gardens, Methuen

Satisfactory season. Above last year but that is not saying much. Customer interest seems high. We are poised for sales, hope customer is poised to buy. No rain, Please!

Anonymous, retailer

April was a very good month, but without question, our business is weather related.

Cost of oil was $.56 a gallon back in 2000 and this year I was paying close to $3.00 a gallon. I strongly believe we are not charging enough for our products, especially when considering all the increases in the cost of operating a greenhouse.

Anonymous, wholesale grower

Cool weather made for a slow start but April was still ahead of last year. That’s not all good as last year’s April was terrible but it’s progress. May is starting off well as long as we can avoid bad weather on the weekends. The weather still rules. So it’s basically positive but too soon to tell yet.

Fred Dabney, Quansett Nurseries, South Dartmouth

Sales of annuals have been steady, but sales of the more expensive, fancy perennials have been slower. We have had a lot of success putting items that finish quickly, and thus are cheaper to produce, on sale in order to drive traffic to the store.

Tina Bemis, Bemis Farms Nursery, Spencer

Spring sales have been good so far. Hanging baskets were strong for mom’s day and much more interest in vegetable gardening this year. Pray for sunny weekends.

Chris Graziano, Graziano Gardens, East Longmeadow

Spring sales good so far even with having gone up a little on price. Weather still plays a large role in spring sales.

Andy and Jacqui Cowles, Andrews Greenhouse, Amherst

New England Greenhouse Conference

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

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 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.

For more information contact Cindy Delaney, Conference Coordinator, at (802) 865-5202 or via email cindy@delaneymeetingevent.com
Department of Agricultural Resources
2009 Calendar Photo Contest

Amateur photographers who enjoy capturing images of the Bay State’s farms and farm and horticultural products are invited to enter the 2008 Massachusetts Agriculture Calendar Photo Contest. Winning entries will be published in the 2009 Massachusetts Agriculture Calendar. The contest and calendar are sponsored by Massachusetts Agriculture in the Classroom, Inc., the Massachusetts Department of Agricultural Resources (MDAR), and the USDA Natural Resources Conservation Service (NRCS).

Entrants are encouraged to keep in mind all seasons of the year, as 12 photos will be selected, one for each month. We look to feature photos that represent the vitality and diversity of Commonwealth’s farms, crops and products throughout the seasons. Last year winners can be found at www.Mass.gov/Massgrown

Winning photographers will be credited in the calendar, will be invited to a winner’s ceremony at the Eastern States Exposition in Springfield in September (tickets to the fair included), and will receive copies of the calendar.

Any questions, contact Rick LeBlanc at (617) 626-1759 or Richard.LeBlanc@state.ma.us, www.mass.gov/agr.


MFGA Plans to Expand Emails

The Mass Flower Growers Association plans to expand the distribution of information via emails. Association members, their employees and individuals and companies interested in receiving program announcements and other information associated with our industry should contact the MFGA office.

Those interested in having their email address added to the MFGA list should contact Bob Luczai at the association office: 781-275-4811 or bluczai@massflowergrowers.com Also, check out the new MFGA web site at www.massflowergrowers.com.

Interns Wanted

Need job experience? Interested in growing plants? Why not apply your talents and gain valuable experience in a clean modern greenhouse environment working with highly skilled growers at Grower Direct Farms?

Call or email Mark Kelley at Grower Direct Farms, 164 Hampden Rd., Somers, CT 06071 Office: 860-763-2335 Cell: 860-680-5646 Email: mark@growerdirectfarms.com

Volante Farms Open House

On March 29 the Volante family hosted an Open House and Ribbon Cutting for their new Westbrook Gutter Connected growing and retail greenhouse. 80 plus friends and family attend the morning event. Included in the group were Doug Petersen, the Massachusetts Commissioner of Agriculture, State Senator Scott Brown and State Representative Lida Harkins.

In designing the structure, the Volante’s considered new and existing technologies to make the greenhouse an “Environmentally Efficient Greenhouse”. Dual overhead shade and heat curtains, Ebb and Flo benches, rain water recycling tank, condenser boilers, water storage tank, micro irrigation and apex roof for ventilation all combine to make the greenhouse environmentally friendly and efficient to operate.

Association sponsors TV Ads – HGTV, Weather Channel and NECN

MFGA will sponsor TV ads in May and early June promoting the purchase of plants and flowers for the spring season. Watch the Weather Channel, NECN and the Home and Garden Channel (HGT) for these consumer promotions.
New England Greenhouse Update

Want to stay informed about what’s happening in greenhouses throughout Massachusetts and Connecticut?

Our website (blog) www.negreenhouseupdate.info contains timely messages using observations and information gathered at grower visits and conversations with growers in MA, CT and RI. Growers can sign-up to receive an email with a direct link to the website whenever a new message is posted.

To receive NE Greenhouse Update via email, please send in this registration form or email the information to: tsmith@umext.umass.edu or lopes@umext.umass.edu.

Name __________________________________________

Company _______________________________________

Email Address ___________________________________

Mail this form to NE Greenhouse Update, UMass Extension, Rm 203 French Hall, University of Massachusetts, Amherst, MA 01003. For more information, contact Tina Smith at 413-545-5306 or Paul Lopes at 508-295-2212 x24.

Using Biological Control in Greenhouses
On Your Way to Growing Greener
Sturbridge Host Hotel Conference Center, Sturbridge, MA September 18, 2008,

Sponsored by: University of Massachusetts, University of Connecticut and Northeast SARE

Natural enemies are being used to manage common greenhouse pests by more and more growers and retailers. Two experts and a panel of growers will cover the nuts and bolts of implementing a successful biological control program for thrips, aphids, fungus gnats and spider mites.

Featuring Stanton Gill, University of Maryland and Suzanne Wainwright-Evans, Buglady Consulting.

Financial support for this program is being provided with a grant from Northeast SARE.

For more information contact: Tina Smith, 413-545-5306, tsmith@umext.umass.edu or Paul Lopes, University of Massachusetts Extension Floriculture Program, 508-295-2212 x24, lopes@umext.umass.edu, Leanne Pundt, University of Connecticut, 860-626-6240, leanne.pundt@uconn.edu. Website: www.umass.edu.umext/floriculture