



News & Views

for New Hampshire's Green Industry

October 2008

Poinsettia Production Decreases as Fuel Costs Increase

For some years growers have struggled to make poinsettias profitable. There has been fierce competition from big box stores and grocery chains who tend to sell the plants at very low prices. Now, high fuel costs have caused some growers to scale back poinsettia production even further, while others have decided to bow out of poinsettias all together. Those who continue to produce poinsettias have looked to alternative production methods that reduce the amount of energy used.

Greenhouse growers who want to continue to grow poinsettias can try the cold production techniques developed by EckerRanch. The cold temperature production techniques allow growers to save energy, reduce costs and improve profitability. However, cold temperature production does not simply mean lowering the temperature. It requires the grower to follow recommended production protocols and cultural guidelines and to choose varieties proven to perform well in cooler environments.

To get information on production protocols and cultural guidelines on cold grow techniques, visit EckerRanch online at www.ecke.com or post your questions online at www.eckeranchtechhelp.com

Brian Krug, UNH Cooperative Extension specialist, greenhouse and floriculture is also conducting research to develop recommendations for growing poinsettia cold specific for New Hampshire growers. Watch for the results from the 2008 trials in future issues.

Geoffrey Njue, Extension Educator, Agricultural Resources, Strafford County

UNH Poinsettia Trials Open House

For growers that have decided to continue poinsettia production there is always the question of which cultivars

to grow. What will your retail sales partners be seeking? Red is still the traditional poinsettia color. But what about pink, white, peppermint, dark red, orange-red, jingle, marble, burgundy, Winter Rose types, Monet/Picasso types, Ice Punch? How will early, mid-season or late cultivars best serve your market? What colors and types are local consumers really interested in? The Poinsettia Trials Open House here at UNH was initiated two years ago in order to gain some insight into the local/regional market, engage the general public in ongoing research, and increase their overall awareness of horticultural production here at the university and throughout the region.

At the 2007 UNH Poinsettia Open House, visitors were shown plants by category as indicated in Table 1. Participants were asked to choose their top three preferences in each category. No incentives were offered to the customers for voting and the plants were identified only by a number.



Poinsettia varieties at the UNH Greenhouses

The overall favorite and favorite novelty at the 2007 trials was 'Ice Punch'. This unique new cultivar from Ecker put

on a dramatic display. Jingle types, like ‘Sonora White Glitter’ and ‘Shimmer Surprise’, were also very popular. ‘Carousel Dark Red’ was impressive with an earlier response time than the previous ‘Red’ version. ‘Dulce Rosa’ continued to draw much attention with its unique fluorescent pink color and large, numerous cyathia. However, overall plant quality of this hybrid was difficult to manage, and the intense bract color tended to fade fairly quickly, even at cooler temperatures.

In the red category, consumers continue to prefer cultivars with deep-red bracts like ‘Prestige Maroon’ and ‘Merlot’. The large, bright-red bracts of ‘Olympus’ and ‘Novia’, as well as cultivars with intense orange-red bracts, like ‘Cortez Electric Fire’, also captured attention.

In the pink category, the favorite cultivar continued to be ‘Polly’s Pink’ with its vibrant, almost fluorescent bract color. ‘Enduring Pink’ was a close second with its large bracts and uniform habit, followed by ‘Maren’ and ‘Mars Pink’. The Mars series was strikingly uniform across all colors in last year’s trials.

University of New Hampshire Poinsettia Trials Open House		Consumer Survey Results - 2007	
Overall Favorite (out of all 95 cultivars)		Favorite Red	
Cultivar	# of votes	Cultivar	# of votes
‘Ice Punch’ (Ecke)	31	‘Prestige Maroon’ (Ecke)	31
‘Prestige Maroon’ (Ecke)	15	‘Merlot’ (Dummen)	30
‘Sonora White Glitter’ (Fischer)	13	‘Olympus’ (Fischer)	23
‘Carousel Dark Red’ (Fischer)	13	‘Novia’ (Fischer)	19
‘Dulce Rosa’ (Ball)	12	‘Red Dragon’ (Fischer)	19
‘Shimmer Surprise’ (Ecke)	11	‘Cortez Electric Fire’ (Fischer)	18
‘Cortez Burgundy’ (Fischer)	11	‘Orange Spice’ (Ecke)	17
‘Premium Picasso’ (Dummen)	9	‘Premium Red’ (Dummen)	16
‘Merlot’ (Dummen)	9	‘Advent Red’ (Ecke)	14
‘Novia’ (Fischer)	8	‘Christmas Carol’ (Selecta)	13
		‘Infinity Red’ (Dummen)	10
		‘Carousel Dark Red’ (Fischer)	10
Favorite Pink		Favorite White	
Cultivar	# of votes	Cultivar	# of votes
‘Polly’s Pink’ (Ecke)	51	‘Santa Claus White’ (Selecta)	44
‘Enduring Pink’ (Ecke)	44	‘Freedom Early White’ (Ecke)	37
‘Maren’ (Fischer)	29	‘Gala White’ (Ecke)	34
‘Mars Pink’ (Fischer)	26	‘Eggnog’ (Ecke)	34
‘Christmas Feelings Pink’ (Selecta)	23	‘Whitestar’ (Fisher)	32
‘Santa Claus Pink’ (Selecta)	19	‘Christmas Carol White’ (Selecta)	32
‘Jester Pink’ (Ecke)	18	‘Infinity White’ (Dummen)	23
‘Pink Cadillac’ (Dummen)	17	‘Enduring White’ (Ecke)	18
‘Premium Lipstick Pink’ (Dummen)	14	‘Mars White’ (Fischer)	13
‘Dulce Rosa’ (Ball)	12	‘Classic White’ (Ecke)	12
‘Freedom Early Pink’ (Ecke)	12		
‘Mars Lipstick Pink’ (Fischer)	11		
		Favorite Novelty	
Cultivar	# of votes	Cultivar	# of votes
‘Ice Punch’ (Ecke)	47	‘Cortez Burgundy’ w/ silver glitter	38
‘Dulce Rosa’ (Ball)	27	Red w/ gold glitter	38
‘Sonora White Glitter’ (Fischer)	25	Yellow on Peppermint	24
‘Carousel Dark Red’ (Fischer)	23	Yellow on White, w/glitter	23
‘Shimmer Surprise’ (Ecke)	21	Tricolor on Pink	23
‘Premium Picasso’ (Dummen)	18	Blue on White w/ ethanol wash	21
‘Cortez Burgundy’ (Fischer)	17	Lilac on White w/ speckled ethanol wash	19
‘Valentine’ (Selecta)	14	Yellow and Blue on White	19
‘Avantgarde Marble’ (Dummen)	11	Blue on White w/ ethanol wash on midrib	18
‘Winter Rose Early Red’ (Ecke)	11	Pink w/ silver glitter	14
‘Santa Claus Marble’ (Selecta)	11		
‘Amazing Pink’ (Selecta)	10		

Table 1. Consumer survey results, December 2007

Choices in the white category appeared to reflect a preference for large bract size and display over the brightness of the white. ‘Eggnog’ is an exciting new Winter Rose type with larger bracts, strong branching and attractive cyathia that hold well.

Dyes and glitters from the Fred C. Gloeckner Fantasy Colors line were applied to a number of plants and again displayed for evaluation and comment at last year’s Open House. Consumers continue to have a love/hate response to these “painted” poinsettias. But whatever your thoughts on this contemporary twist on the traditional holiday plant, there were a significant number of visitors that were intrigued and excited about these painted wonders.

The consumer choices reviewed here were not necessarily our favorite cultivars from a grower’s perspective, but rather provide a basis for evaluating trends in consumer preferences. It is not likely that red poinsettias will significantly decrease in popularity any time soon. However, retailers may want to consider including different shades of red and some unique novelty cultivars to create more eye-catching displays. And who knows? A unique painted poinsettia here and there may be just what you need to differentiate.

Our 2008 Poinsettia Trials Open House is scheduled for Dec 4, 5 and 6. Hours will be Thursday, 10am-6pm, Friday, 10am-4pm, Saturday, 9am-4pm.

David Goudreault, Asst. Manager, UNH Research Greenhouses

Tips for Saving Energy in Your Greenhouse

At UNH Cooperative Extension’s Greenhouse Energy Conservation Workshop growers learned about the use of alternate fuel sources and the economics of each. Most growers already using alternate fuels agreed that having a long-term supply was the most important element when making the decision to change fuel types.

From Dr. Brian Krug, UNHCE greenhouse specialist, growers learned how using the Virtual Grower USDA website could help them to make decisions on fuel sources to use, glazing materials to use, new construction, new heating systems and crop scheduling. The crop scheduling portion of the program can help businesses decide whether growing from seed, plugs, liners or enhanced liners will be most economical. Using different inputs, the Virtual Grower can help you compare costs tailor-made for your greenhouses. To access the Virtual Grower visit: <http://www.ars.usda.gov/services/software/download.htm?softwareid=108>

John Bartok, agricultural engineer from the University of Connecticut, covered energy conservation and energy audits. You, too, may want to take a walk through your greenhouses, make a list of tasks to reduce air infiltration,

prioritize the list by those that will save you the most money and then find the time to complete the work. Doing the necessary repairs and maintenance to reduce significant heat loss around doors, vents, shutters, glazing, under skirt boards and where there are attachments to headhouses can save you hundreds of gallons of heating oil.

The exchange of indoor and outdoor air through doors can lead to drafts and significant heat loss. Poor shutter closures can do the same. A 48 inch fan shutter with 1 inch gaps can result in a heat loss of 23,000 Btu per hour. If oil is \$4.00 per gallon, the cost to you is \$.92 per hour. Over a heating season that runs from February through May, that's a lot of money! Covering or insulating shutters not used during the coldest months can also help.

You can save 400 gallons of heating oil on a 28' x 100' greenhouse by insulating the kneewalls to bench height. If you're growing plants on the floor you may not want to do this, or you may only want to insulate the first foot or so. Place 1 to 2 inch thick, foil-faced foam boards between greenhouse posts. And insulating water pipes (where you don't need heat) with foam or fiberglass will also yield significant savings. Insulation on a 3/4 inch pipe will save \$5.00/foot annually, paying back the cost in less than a year.

If you have gutter-connected greenhouses an energy blanket at \$2.00 to \$2.50 per square foot will pay for itself in 1 to 3 years. Energy blankets or curtains, combined with shade curtains, can result in 40 to 60% energy savings. They need to fit tightly at the edges or the temperature above can actually be higher than the temperature underneath.

Next time you replace your plastic install infrared plastic film as the inside layer. Trapping the interior IR heat will save 10 to 20% on the typical energy bill, and only costs an additional \$.01 to \$.02 per square foot.

Putting in a windbreak on the north and/or northwest side of the greenhouse can help save 5 to 15% on your energy bill. An ideal place to purchase small, inexpensive seedlings for this purpose is through the NH State Forest Nursery. They will begin taking orders for the 2009 year in January. You can access them online at: <http://www.dred.state.nh.us/nhnursery/>.

Hire someone or spend the time yourself to do heating maintenance annually. Replace the nozzle and filter, clean the heat exchanger and clean and adjust the controls. Oil motors and pump bearings and check the fan belts.

Check the flue connector and stack and make sure there is sufficient outside air coming in close to the burner. A 4 inch pvc pipe run from the outside (placed above snow height) to the floor just under the burner will insure this. Thermostats should be located just above plant height: suspending them on a chain allows them to be adjusted up or down based on crop height. Ideally, thermostats should all be located in the same place: a white, aspirated box. Each year thermostat sensors and contacts should be cleaned, the wire connections checked to be sure they are tight, and thermostats should be checked for accuracy. An inexpensive electronic thermostat (about \$35.00) can help you check accuracy.

Horizontal Air Flow (HAF) fans helps maintain a more uniform temperature throughout the greenhouse cuts down on disease problems and provides higher CO2 levels. Fans should be placed in the center of the air mass that needs to be moved and kept running continuously during fall, winter and spring.

Other ways to save energy involve alternate fuel sources, multi-level crop spacing, using natural ventilation for cooling, replacing incandescent bulbs with compact fluorescent bulbs, building a germination chamber to start seedlings, starting up greenhouses later, keeping the growing area full, lowering the night temperature and more.

For information on alternate fuel sources, energy conservation practices and walk-through energy audits you can call or e-mail Holly McKinney at the Hillsborough County Cooperative Extension office (641-6060 or holly.mckinney@unh.edu). She will send you John Bartok's fact sheets covering this information.

Margaret Hagen, Extension Educator, Agricultural Resources, Hillsboro County

Glyphosate misuse can lead to split bark on woodies NMPRO, July 29

Glyphosate products like Roundup may also damage woody plants. Hannah Mathers, Ohio St. Univ. Ext. nursery and landscape specialist, said glyphosate applied improperly or in too high of a dosage is causing a phenomenon known as split bark. Through the tree's uptake, the chemical deteriorates the bark structure and destroying the winter hardiness of the plant. The cosmetic damage makes the plant unsalable. Mathers is teaming with Monsanto to develop a safer glyphosate product. Mathers said that until safer glyphosate products are

developed, a change in weed management practices is required to control split bark. "When glyphosate use is necessary, use a glyphosate product around woody plants that has no adjuvant load," Mathers said. "Products that have a full adjuvant load are the worst around ornamental plants because of the increased potential for uptake of the glyphosate by the surfactant into the bark."

A Post Card from Cathy Neal



*A Postcard from
Cathy Neal*



Having a wonderful time touring the country this month. One of my first stops was Willoway Nurseries in Avon, Ohio with over 1000 acres of woodies, about half of which has been converted to pot-in-pot production. They grow their own tree whips in a retractable roof greenhouse (left photo) in one year, then plant them into the pot-in-pot system (right photo). I've seen a lot of their product, marketed through brokers, end up in N.H. garden centers.

I also visited the largest nursery in the country, Bailey Nurseries, at their headquarters in St. Paul, MN. We spent the better part of the morning touring their container and pot-in-pot production areas. In addition to deciduous trees, they have many evergreens in shrubs in pot-in-pot as well. The key to success is excellent drainage, often requiring tile drains underneath the beds. The benefits are faster crop time, better quality, no blow-over and no special over-wintering requirements. Of course it does help to have no rocks in the soil....
More later, Cathy

Want to see more post cards from Landscape and Nursery Horticulture Extension Specialist Cathy Neal. She is traveling across the country on professional development leave. Electronic postcards from her horticulture adventures are available at: <http://extension.unh.edu/Agric/CathyNealpostcards.htm>

Correction

In the July issue of News and Views there was a research report titled "Results from Mum Pricing Survey". Unfortunately, when the article listed the counties that participated in the survey, Rockingham County, was left off the list. Rockingham County Cooperative Extension and retail centers did participate in the project and the data in the article does reflect their input. To see the corrected article you can go to the July 2008 issue of News and Views at: <http://extension.unh.edu/Agric/AGNLT/NLTNews.htm>

Upcoming Events

November 5-7, 2008. New England Greenhouse Conference & Expo at the DCU Center in Worcester, MA. For information visit, <http://www.negreenhouse.org>

December 9, 2008. New Hampshire, greenhouse plant nutrition and growth regulators workshop. For information about this workshop contact Brian Krug at brian.krug@unh.edu

January 8, 2009. Tri-state IPM Workshop. UNH Campus.

January 21, 2009. New Hampshire Plant Growers Association Winter Meeting. For information visit, <http://www.nhplantgrowers.org/news-events.cfm>

February 4-6, 2009. New England Grows, Expo and Conference at the Boston Convention and Exhibition Center. For more information visit <http://www.negrows.org>

February 6 and 7, 2009. NH's Farm and Forest Expo at the Center of NH - Radisson Hotel, Manchester, NH. For more information visit the website <http://www.nhfarmandforestexpo.org>

This newsletter is a cooperative effort of the Ornamentals Extension Educators and Specialist at the University of New Hampshire. It is published quarterly. Its purpose is to inform and update industry members on issues and research to the production, use and maintenance of ornamentals and turf in New Hampshire.

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