H o r t i c u l t u r a l E n g i n e e r i n g

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Overview of the OFA Short Course and Tradeshow , July 12-16, Columbus, OH.

OFA Short Course 2003
A.J. Both

This year, I attended the Ohio Florists' Association Short Course in Columbus, Ohio, July 12-16. It was my first time attending the Short Course and not knowing exactly what to expect, I can tell you that I had a great time walking the large tradeshow and attending several of the informative Short Course seminars. The event was held in the Greater Ohio Convention Center and the tradeshow filled almost all of the available exhibit space. Many greenhouse industry companies were represented, displaying products from seeds, to new pant varieties, to all kinds of greenhouse equipment and materials, to full size transplanting lines and greenhouse structures. It took several hours just to walk the isles and get an idea of all the different companies and their products. It would have taken at least two full days to stop by and have a talk with most of the companies represented. If you ever need to know anything about the trends in the North American greenhouse industry, the annual OFA Short Course is definitely the place to be.

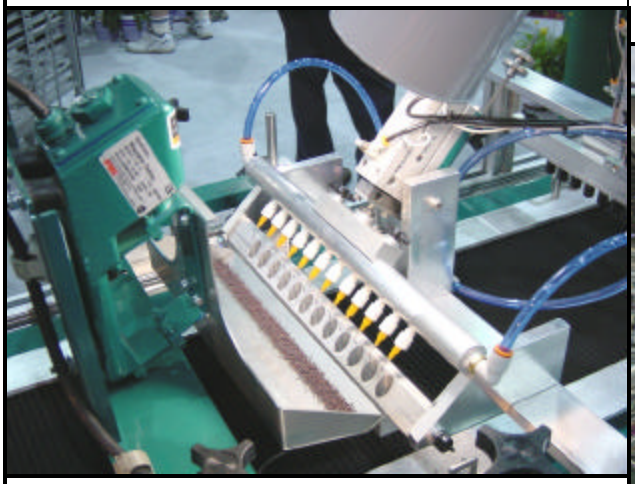
Several people asked me it I saw anything new at the trade show. I must admit that there were few completely new ideas, but many of the products presented had been through several stages of refinement. For example, almost all of the greenhouse manufacturers showed their open-roof designs that now have become a common appearance in many parts of the country. There is still a need for more information about the effectiveness of open-roof greenhouses (particularly, there is a need to better understand the ventilation rates under different weather conditions and it would be helpful to know how the air flows through the structure), but many manufacturers have made some design modifications to address some of the experiences by growers.

Another great feature of the OFA Short Course is the large number of seminars presented on a whole range of important industry topics. I happened to be one of the speakers, so I may be a little biased. The seminars are intended to provide useful and timely information to greenhouse growers and industry representatives. My seminar was one in a series on greenhouse climate control and the speakers included growers, industry representatives, and university researchers. I spoke about the potential benefits of supplemental lighting, and presented some of the issues growers should consider while deciding

whether supplemental lighting would work for them. Even if you are familiar with the topics presented at the Short Course, a quick refresher can bring you up to speed on the latest state-of-the-art. And if things get a little boring, you can always conveniently walk back to the trade show. A great combination!

So, if you haven't attended the OFA Short Course before, I can recommend it! The next one is scheduled for July 10-14, 2004 in Columbus, Ohio. Mark your calendars! http://www.ofa.org

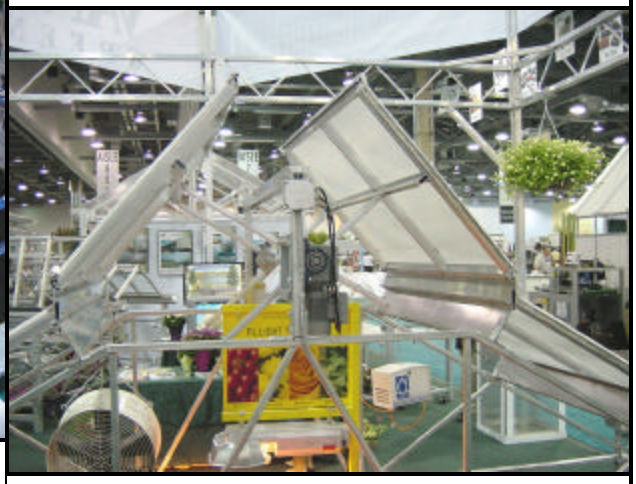
A transplanting robot moving African violets from and ebb and flood table onto a conveyer belt.



A needle seeder for the automated seeding of plug trays.

Design detail of the peak of an open-roof greenhouse.

Open-roof greenhouse design with independently movable roof sections.



Open-roof greenhouse design for wide-span greenhouses.

Natural gas or oil?
A.J. Both

With the high heating costs of last winter fresh in mind, I have been asked several times which fuel source is most economical for greenhouse production. The answer is not as easy as one might think. Current oil prices are high for obvious political reasons, mostly as a result of the tensions in the Middle East. US National oil production has steadily declined since the mid eighties, while gasoline consumption has increased. There are more cars on the road today and their average fuel economy has steadily declined (due to fuel inefficient light trucks and SUVs). However, there is enough oil available on the world market to warrant pre-September 11 price levels. Unfortunately, the world's political climate does not appear to be ready for change anytime soon, so the expectation is that oil prices will remain high for the foreseeable future.

Then what about natural gas? It turns out, there is a national shortage of natural gas. One of the reasons is that since 1987, the US Congress reversed course and allowed the use of natural gas for large scale production of electricity, despite its earlier position that natural gas should be preserved for use in residential heating. With significant public pressure not to build any more nuclear power plants, and with limited resources allocated for the development of other reliable and/or renewable energy sources (wind, solar, hydro, biomass), most of the recently built power plants in the US use natural gas for electricity production. Since the 1987 reversal, the domestic gas consumption has outpaced domestic production and the gap is continually widening. As a result, gas prices have increased significantly and are expected to remain high for the foreseeable future. The shortage may be eased a bit if the US is able to significantly increase imports of liquefied natural gas (LNG). This was tried before in the late seventies without success and now the necessary infrastructure is being brought back on line. But because of its handling procedures, LNG is likely to remain more expensive than natural gas. (For more reading, see Time Magazine, July 21 issue)

What does this all mean for the greenhouse industry? Like it or not, gas and oil fuel prices will remain high and could climb ever higher. I have talked with several growers interested in using wood as a fuel source. Although wood burning systems have their own challenges, wood is a renewable energy source that is still abundantly available in most parts of the country. For those of you who do not want to or can not use wood as a fuel source, there are several strategies that can be followed to reduce your overall energy use, and thus reduce your energy bill: 1) turn equipment off when it is not in use, 2) insulate your structures and parts of the heating system so that heat is only released where needed, 3) instruct your employees to use energy as wisely as possible and demonstrate your own dedication by practicing conservation measures, 4) install the most energy efficient equipment available and properly maintain it, 5) install dual fuel heaters that you can operate based on the cheapest fuel price, 6) buy fuel in bulk to get a better unit price (this may require additional storage facilities), 7) keep yourself informed of the ever-changing fuel prices and the developments in the fuel delivery industry, 8) have your heating systems checked regularly by a certified technician, and 9) install an energy/shade curtain. Finally, make sure to maintain a safe working environment around your heating system by providing sufficient make-up air during fuel combustion and by ensuring sufficient updraft in each stack (chimney).

Use the summertime for boiler maintenance.

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Bedding plant production, Spring 2003

HORTICULTURAL ENGINEERING

Dr. A.J. Both
Assistant Extension Specialist
Director of CCEA
Bioresource Engineering
Rutgers, The State University of NJ
George H. Cook College
20 Ag Extension Way
New Brunswick, NJ 08901-8500
Your comments, questions, and suggestions are always welcomed.
Phone (732) 932-9534
email: both@aesop.rutgers.edu
Web: http://aesop.rutgers.edu/~horteng

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Upcoming Meetings, Shows, etc.

National Agricultural Plastics Congress
Grand Rapids, MI
August 16-19, 2003
http://www.plasticulture.org

2003 Perennial Production Conference
St. Charles, IL
September 28-October 1
http://www.ballpublishing.com/conferences/

Canadian Greenhouse Conference
Toronto International Centre
October 8-9, 2003
http://www.canadiangreenhouseconference.com

HortiFair (NTV)
Amsterdam, the Netherlands
November 5-8, 2003
http://www.hortifair.nl

Greenhouse Engineering Short Course
Rutgers University
New Brunswick, NJ
January 8-9, 2004
To register: contact The Office of Continuing Professional Education: 732-932-9271
http://www.cook.rutgers.edu/~ocpe

New Rutgers Tomato Website
http://www.rutgerstomato.org