Plant Science Says

December, 2006

Christmas Party

The Departmental Christmas party will be on Friday, December 15, at 5:30 p.m. at the Bozeman Senior Center. Dinner will be at 5:45 and Santa will be showing up around 7:00 p.m. Please bring one of the following to share: Hors d'oeuvres, a vegetable or potato dish, salad or dessert. The meat, rolls, and drinks (non-alcoholic) will be provided. Please join us!

Learning from 2006 American Society of Landscape Architecture Convention
By Yousef R. Zadegan

"Green Solutions for a Blue Planet" was the theme of the 2006 ASLA Annual Meeting, held in Minneapolis, Minnesota last October. With its highest attendance in two decades and more than 4,000 participants from all over the world, the meeting took a global look at issues related to the profession, often emphasizing environmental sustainability. Environmentalist Jean-Michel Cousteau, in his opening remarks, expressed the need for the profession to take a leadership role in improving the health of the planet, addressing issues of sustainability at all scales. In various meetings, practitioners and educators discussed the state of landscape architecture from an international perspective and clearly indicated that landscape architecture has grown into a profession with equal standing compared to the disciplines of architecture and urban planning.

In addition to four general sessions, 15 tours, 10 field sessions, three workshops and eight open forum sessions, 48 educational programs were scheduled for participants to attend. Among those were workshops and presentations by world renowned and very influential landscape architects and educators, Martha Schwartz and Michael Van Valkenburg. The last day of the convention, I managed to visit the famous "Courthouse Plaza" designed by Martha Schwartz and the "Minneapolis Sculpture Garden", the finest new outdoor museum in the United States designed by Peter Rothschild.

For the past three decades, American landscape architects have been dealing with the role of ecology in design. The concept of "sustainability" has come to the forefront of discussions related to ecology and has helped expand the role of the landscape architect in applying both ecological principles and sustainable design strategies into projects at various scales. This conference clearly reinforced, challenged, and demonstrated the role of ecology and sustainable design within contemporary practice, with emphasis on the global exchange of ideas represented by participants from around the Globe.

The most intriguing and direct challenge came from Martha Schwartz. I admire Martha Schwartz for what she does as a Postmodernist Landscape Architect and enjoyed a chat with her regarding her recent projects in Japan and England. As a

landscape architect and artist, Schwartz challenged the profession and her message was that landscape architecture should be a practice of creative risk as well as a profession devoted to the stewardship of the environment. In other words, it needs to be both environmentally and culturally responsive while also promoting creativity and exploration of what landscape architecture really means and can contribute to the world.

In his speeches, Dennis Carmichael, the President of ASLA, mentioned that with the existing state of the profession, one thing that needs to be addressed is the fact that the number of graduating students from American universities is not keeping up with the national population indicating that something drastic needs to happen to increase the number of graduates in order to meet the demand in the marketplace for our services. If landscape architecture is to build and maintain its effectiveness in producing environmentally and culturally sustainable projects, it needs an increased workforce to do so.

The 2006 ASLA Annual meeting in Minneapolis was a great success. Several attendees remarked on the high quality of educational sessions and large Expo Hall. It provided me with the opportunity to interact with both professionals and educators in landscape architecture and I gained new insight and valuable information regarding the direction we should take in our plan to establish a new program in Landscape Architecture at MSU. I returned home inspired by what I had experienced, with a deeper understanding of our global environment and a motivation to take on the environmental and cultural challenges that confront our global community. The fact is that working together as a profession remains a necessity, as is collaborating with other practitioners in our allied design fields such as environmental design, architecture, engineering, and planning. Working collaboratively will allow us to achieve the green solutions for our blue planet, design solutions that balance both environmental and cultural issues at every scale of design while maximizing our collective creativity.

Sixth Canadian Pulse Research Workshop
By Mary Burrows

In early November, I decided to attend the Canadian Pulse Research Workshop in Saskatoon, Saskatchewan. Generally, pulse crops are defined as chickpeas, lentils, peas, and beans. An easy way to remember is that pulse crops are 'non-greasy legumes.' I wanted to learn more about the pulse crop industry, current trends in pulse crop

(particularly chickpea) breeding, and to meet other researchers in the field. A great advantage to this meeting is that it drew researchers from all over the world, including Bangladesh, Australia, and France.

The first day of the conference focused on the 'Pulse Innovation Project.' As one attendee stated, we have 'Great Expectations' for 'PIP.' (Think back to your high school literature class if you don't get the bad joke.) Essentially, the goal of PIP is to perform research in order to deliver more appealing pulse crop products into the market, and to perform clinical research so they can authoritatively state the health benefits of eating pulse crops. Pulse crops are high in fiber and various other things that are good for you, including folic acid, B vitamins, and potassium. Speakers in this session discussed the benefits of pulse crops as low glycemic index foods for diabetics, the inclusion of pulse crops in a diet for weight loss, and improving soccer performance. I wouldn't have wanted to be a study participant in the soccer study, though – participants needed to eat either instant mashed potatoes mixed with dried egg, or boiled salted lentils - not appetizing breakfast foods. However, a focus of the afternoon session was improving the palatability of pulse-containing foods. I think the soccer researchers need to look into muffins containing chickpea-flour.

The second session was about pulse quality and processing. I never knew there were so many nutritional diseases that could be solved by eating pulse crops! Apparently, in Bangladesh and the surrounding area, there is a high level of arsenic in the drinking water. Millions of dollars have been spent attempting to clean the drinking water. But it turns out that the symptoms experienced may actually be due to a selenium deficiency, because arsenic binds to selenium and removes selenium from availability for use in the body (www.bangladesh-selenium.org). Fortunately,

lentils produced in Canada are very high in selenium, and they are working on promoting Canadian lentils as a cure for selenium deficiency. It will be interesting to see how this story develops. On the second day of the conference, I learned about crop improvement and plant pathology. One of the largest disease problems on chickpeas and lentils is ascochyta blight. This is a seed-borne disease which overwinters on stubble. Windborne spores cause multiple cycles of infection throughout the growing season, and epidemics in 2000 and 2001 were devastating to Montana chickpea growers. There have been tremendous breeding efforts on multiple continents to develop resistant varieties of chickpea and lentil. There has been progress, but there are no highly resistant varieties. In Asia, they have a lot of other disease and insect problems we have not yet encountered, such as leaf miner and cyst nematode. Now I know what to keep an eye out for!

In the evening of the second day, we had a buffet dinner with local entertainment. Honestly, I didn't get some of the Canadian jokes, but the artist played piano very well and was extremely funny. The highlight of the evening was the buffet dinner – they made an effort to include lots of pulse dishes. Everything was wonderful, especially the red lentil soup (recipe at end of newsletter) and lentil cheesecake (if you want the recipe just ask me).

The final day revolved around a discussion of the Grain Legume Technology Transfer Platform, which was launched by the Grain Legumes Integrated Project. Their goal is the development of genomic tools to develop molecular markers for breeding higher quality pulse crops. Apparently, there is a high level of synteny between pulse crops and the model legumes *Medicago truncatula* and *Lotus japonicus.*

It was interesting to learn about the new research tools becoming available, the current research, issues faced around the globe regarding disease and weed control, meet new friends and enjoy good food. So, the next time you're at a restaurant note the number of dishes containing pulse crops – there aren't a lot unless you're in an ethnic restaurant. The acreage of peas, lentils, and chickpea is growing in Montana and we can make healthier choices and support local agriculture by eating them!

Bob's Byte
By Bob Johnston
How many times do you need access to your office computer or other MSU computer resources when you travel or perhaps you would like to save a trip to the office when you are working at home? Chances are that at some point in time you will need to access a forgotten file or perhaps gain access to the P drive. If you have access to a networked computer at another location or if you use your laptop to connect through a wireless connection, (a dialup connection is usually way too slow for this) you can easily gain access to those resources that you need.

Here a couple of options to consider:
Remote desktop – This type of connection allows you to remotely connect to your computer from any networked computer world-wide. Once the connection is established, you will be viewing and working directly on your office computer. You can use this type of connection to view email or modify and print data files. The steps to modify your office computer can be found at
http://www2.montana.edu/desktop/remotedesktop.htm
VPN connection – The virtual private network allows you to connect to campus resources through an encrypted connection. If you only need access to the P drive for example, this is an excellent way to make that connection. You will need to have an MSU user name and password to authenticate – just like you do when you logon to your computer after rebooting it. The steps to create a VPN connection can be found at:
http://www2.montana.edu/desktop/vpn.htm
If you use either type of connection on a computer other than your personal one, be sure to close either connection type before you leave the machine – or better yet, just reboot the machine you are currently working on.
Suggestion: If you decide that you would like to do this, please make sure that both connection types are setup and working correctly before you leave campus.

Why did my Christmas cactus bloom before Thanksgiving?
By Cheryl Moore Gough
Did you purchase a plant that looked like a Christmas cactus without reading the pot tag? There are many plants that look like Christmas

cactus; some are and some aren't. Many of these plants actually are *Schlumberger a bridgesii* (*Zygocactus bridgesii*), with the common name of Christmas cactus. These plants with arching 1 foot long branches have flowers 2 ½ to 3 inches long that bloom during the winter. They are often confused with *Schlumbergera truncata*, (*Zygocactus truncatus*), commonly called Crab cactus, Claw cactus or Thanksgiving cactus. Generally, Thanksgiving cactus has leaves with margins that are sharper than those of the Christmas cactus, it has a more upright growing habit, and it blooms in autumn. There are many hybrids and cultivars of Thanksgiving cactus available, including 'Bicolor', an early white and rose colored flower, 'Salmonea', with salmon-pink flowers and 'Violacea', with bright violet flowers. To further complicate issues, perhaps your Christmas cactus blooms at Easter. This is *Rhipsalidopsis gaertneri* (*Schlumbergera gaertneri*), which is also known as Easter cactus. Confused? Don't be. Just enjoy the floral show, whatever time of the year it happens!

The Cure for Skunk Odor
By Jeremy Jewell

While I was feeding the cows at the Oscar Thomas Nutrition Center, my cowdog Merle was sprayed by a skunk. I have heard recipes that include tomato juice, baking soda, and hydrogen peroxide, but I have also heard that none of them really work.

The spray appeared to be an oily substance, so I thought to try GooGone as it is a remover of oily and sticky substances. I sprayed GooGone very liberally onto the affected area and thoroughly rubbed it in for fifteen minutes. Next I rubbed liberal amounts of vegetable oil into the area. Finally I removed the oil and GooGone with Dawn dish detergent. Amazingly, he doesn't stink anymore! I did have to wash him with Dawn a second time to remove all of the vegetable oil.

Recipes of the Month

Spicy Lentil Soup contributed by Mary Burrows

2 tsp olive oil
2 onions, chopped
3 cloves garlic, minced
2 tsp ground cumin
¼ tsp cayenne pepper
2 tbsp all-purpose flour
7 cups chicken broth
1 ½ cups dry split red lentils, rinsed
2 tbsp tomato paste
salt and black pepper to taste

Heat oil in large saucepan over medium-high heat ; cook onions and garlic about 2 minutes or until softened. Stir in cumin and cayenne; cook, stirring, for 1 minute. Stir in flour until combined. Stir in broth, lentils and tomato paste. Cover and bring to boil, stirring occasionally. Reduce heat simmer 24 to 30 minutes or until lentils are tender. Add salt and pepper. To increase the heat level of this dish, add more cayenne pepper.
Serve with cilantro garnish and yogurt on the side.

Savory Olive Stuffing
1/2 cup butter
4 leeks, cleaned and thinly sliced
2 Granny Smith apples, cored and chopped
3 ribs celery, chopped
1/2 pound mushrooms, sliced
6 cups coarse fresh breadcrumbs
1 (6-ounce) can Black Ripe Pitted Olives, drained and halved
1/2 cup chicken broth
1/2 cup toasted walnuts, chopped
1/4 cup fresh Italian parsley, chopped
2 teaspoons ground dried sage
2 teaspoons ground dried thyme
1/8 teaspoon Salt and freshly ground pepper

In a large skillet, melt butter over medium heat. Add leeks; sauté, stirring occasionally, for 10 minutes. Stir in apples, celery and mushrooms; sauté, stirring occasionally, for 8 minutes. Transfer the mixture to a large bowl. Stir in breadcrumbs, Lindsay Olives, broth, walnuts, parsley, sage and thyme; mix well. Season with salt and pepper.

Stuffing can be served immediately or cooled and stuffed into a turkey ready to be roasted.

December Birthdays

Bill Grey	4
Nancy Blake	6
Jack Meyer	19
Will Lanier	20
Cathy Seibert	21
Elena Kalinina	21
Cheryl Moore-Gough	23
John Ansley	23
Sue Brumfield	26
Lucy Cooke	30

Once again, it has been great working for all of you this year. We wish each of you a very Merry Christmas and a Happy New Year!

Bobby, *Joanna* and Irene