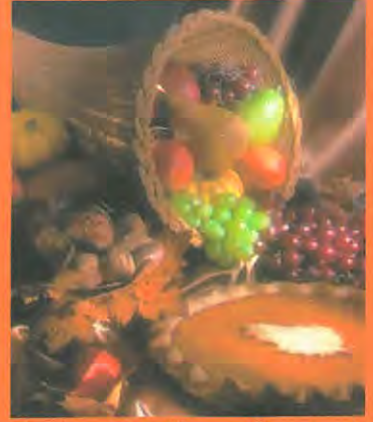


Plant Science Says



Happy Thanksgiving!

November, 2004

Annual Christmas Party

Please reserve Sunday, December 12 from 4-7:30 for our annual Christmas Party at Country Lanes. Details will be in the December newsletter.

Marvelous Madagascar

by Gary Strobel

It has been referred to as the eighth continent. It arose as one of the world's largest islands when it broke from Africa. It then remained somewhat stationary while the Indian land mass proceeded to move north to the sub-continent of Asia. About 50 million years before, India and Madagascar were connected to Africa which helped make up the ancient Gondwanaland land mass. Today, Madagascar is still moving away from Africa at the rate of 6mm per year.

Madagascar is home to about 18 million people, most of whom have their origins in several waves of Indonesian peoples who arrived there in an astounding trans-Indian ocean migration about two thousand years ago. It seems apparent that these peoples were greeted by, what was then the world's largest crocodile, largest tortoise, largest lemur (man sized), and largest bird (elephant bird). Each of these animals is now extinct, probably due to the ravenous appetites of the newly arrived human population.

Botanically, Madagascar, as claimed by them, was once entirely covered with rainforest-like vegetation. I suspect this assumption is not correct given the dry interior portions of the country that have probably been barren for many centuries and very much resemble the rolling hills of Eastern Montana. It turns out that only 10% of the original Eastern prime rainforests still exists today, especially in the Maosala peninsula, Nosy Mangabe (around Maroantsetra), and Montagne Ambre in the north. The once prime forest was harvested for

timber and much of the valuable species were converted to charcoal. Today, although replanting has been done in many areas, the tree species used are eucalyptus and grevillas from Australia. On an upbeat point, however, many of the areas that house the prime forests are now converted to reserves and National Parks and most of these areas seem to be secure.



A species of Allodia that grows only in Madagascar. Even though it is covered with spines, the lemur can maneuver through the branches.

In the past at least 80% of the vegetation of Madagascar consisted of endemic species and most of these species



The world's largest egg from the world's largest bird, the elephant bird, that went extinct about 2 thousand years ago. An egg appears every once in awhile and suffice it to say, they are extremely valuable.

can still be found today such as the traveler's palm, the periwinkle, the via, many boab species, many *Pachypodium* species, *Alluaudia* species and many orchid species. With this important fact may come the



realization that with plant endemism may also exist microbial endemism (uniqueness). In a few months' time we shall be able to tell whether or not the trip was a success from a scientific viewpoint as we carefully examine these plant specimens for the presence of endophytic microbes. Of all of the areas that we saw, the most impressive was the spiny forest of the south near the Berenty reserve. It appeared as if we had landed on another planet. Most of the forest species were displaying spines, thorns and other sharp protuberances, while the lemurs seemed to be content to jump on and live in these unwelcoming places. I have never seen anything like this in all of my travels.

No doubt about it, the animals of Madagascar were incredible. We got to see almost half of all of the lemur species from the largest (Indri-Indri) to the smallest (brown mouse or dwarf lemur). We also found many chameleon, snake, insect, bird, gecko and spider species.



Leaf tailed Gecko

Two students from MSU went on the trip – John Wright from Biochem and Jeff Cameron from this department. In addition, Mark Moffett, a National Geographic writer and photographer was along to add his Harvard experiences as an ant, insect and snake man as well as Ken Kamler who was the expedition's medical doctor. Ken had been with the ill fated Everest expedition in "96" when 6 people died.

It was a great trip and one of the best that I have ever taken. It will leave impressions on my mind that will last forever.

Bruckner and Cripps Receive Leave Funding

Phil Bruckner and Cathy Cripps have received funding for Short-term Development Leave Programs. Phil will be traveling to the BASF laboratories in Research Triangle Park, North Carolina. Cathy will be traveling

to Oslo, Norway, August, 2005, to attend the ISAM Symposium on Arctic-alpine fungi. Congratulations!

Schedule of MAES Presentations

Mike Giroux	11/8	9:00	325 LJH
"End Use Properties of Wheat and Barley"			
Phil Bruckner	11/24	1:00	108 ABS
"Winter Wheat Breeding and Genetics"			
Cathy Cripps	11/19	2:15	325 LJH
"Mycology in Montana"			
Andreas Fischer	11/30	10:00	108 ABS
"Cereal quality and biochemistry"			

There will also be presentations by Mark Young, David Sands and Barry Jacobsen.

Grants

Alice Pilgeram, "Using Odorants as Tools to Detect Dyed-diesel", Montana Dept. of Transportation

David Sands, "Development of Plant-Based Trout Feeds", USDA

Bob's Byte

By Bob Johnston

The BlackBerry is an integrated phone and e-mail organizer and network portable wireless handheld device. It allows a person to get their campus Outlook email across the Verizon Wireless phone system when they are away from the office. If you are interested in knowing more, please contact Chris by dialing 0. If you want to order the organizer, please contact Irene at 5171.



Also, start with *228 on your university Cellular One phone. This will expand your home calling area.

Search for the Vice-Pohl Position



Dick Pohl, associate professor of landscape architecture, has decided to retire after the spring, 2005, semester. The search committee consists of Jack Martin, Chair, Cathy Cripps, Yousef Zadegan and Ferdinand Johns (Architecture). The position will be advertised on the ASLA, ASHS, and Higher Ed websites as either an Assistant

Professor (tenure-track) or an Adjunct Assistant Professor. Screening will begin January 15, 2005.

Dick is looking forward to traveling, doing some volunteer work and seeing what opportunities arise.

Can I grow black walnuts in Montana?

By Bob Gough



Lately I've been getting a lot of calls on walnuts: which ones to grow and how to grow them. And then probably the most important

question of all, "How do you get them out of the shell?"

Black walnuts are native east of here, but they'll grow pretty well in our region. They were an important food item in the Native American diet and the early colonists used the nuts for mast to fatten their swine for slaughter. Today the distinctive flavor of the nuts is a valuable addition to ice cream, and the shells are ground and used to polish metal parts. The wood is highly regarded for cabinetmaking and gunstocks.

Black walnut trees are sensitive to soil conditions and do best on a deep soil with plenty of moisture. A healthy tree will produce its first crop of nuts in about 8 years, reach maturity in about 100 years, and continue to produce for more than 250 years. Abundant crops are irregular and produced, on average, two in five years. There are a couple dozen named cultivars of black walnut, grafted onto black walnut rootstocks, but most of us plant unnamed stock.

The nuts ripen in September and October. Shell the fallen nuts within two weeks to preserve their flavor and color. Wear gloves to avoid the husks staining your hands. And how do you crack the nuts? Some run over them with a car, some crack them in a vise, and some use a sledgehammer. It's hard work, but the rich, nutty flavor is worth it.

John Ansley No Longer an Eligible Bachelor!



John Ansley and Elizabeth Schwartz became engaged on September 16th at Potosi Hot Springs. The wedding will be sometime in early May. John is

working on his master's with Barry Jacobsen and Elizabeth is a master's student in Psychology. They met on a blind date, arranged by Nicole Hertzberg of the Jacobsen lab, in June, 2003. Congratulations to you both!

November Birthdays

Angie Solvie	3
Jim Berg	4
Jack Martin	8
Kathi Trujillo	8
Catlynn Swan	9
Harvey TeSlaa	15
Leila Feiz	17
Cathy Cripps	18
Adam Richman	22



Recipe of the Month

Pumpkin Cheesecake Bars

- 1 (16 ounce) package pound cake mix
- 2 tablespoons butter, melted
- 3 eggs
- 4 teaspoons pumpkin pie spice
- 1 (8 ounce) package cream cheese, softened
- 1 (14 ounce) can sweetened condensed milk
- 1 (15 ounce) can pumpkin puree
- 1/2 teaspoon salt
- 1 cup chopped pecans

Preheat oven to 350 degrees C (175 degrees C). Coat a 15x10 inch jelly roll pan with non-stick spray. In a large mixing bowl, on low speed, combine cake mix, 1 egg, margarine, and 2 teaspoons pumpkin pie spice until crumbly. Press onto bottom of prepared pan. In another large mixing bowl, beat cream cheese until fluffy. Gradually beat in sweetened condensed milk, and then remaining two eggs, pumpkin, remaining 2 teaspoons pumpkin pie spice, and salt; mix well. Pour over crust; sprinkle with pecans.

Bake 30 to 35 minutes, or until set. Cool, and then chill in refrigerator. Cut into squares. Store covered in refrigerator.

