Plant Science Says

June, 1999

From the Desk of Dr. Norm Weeden

For those of you who would like to strip away the academic gloss and get to know the real Norm Weeden, it sort of starts with the out-of-doors. For as long as I can remember I have loved to fish, hike, climb, and ride (bicycles). I met my wife, Cathy, on a hike in southern Utah and married her because she was willing to put up with me on a 2 month backpack through the Sierra Nevada (and perhaps vice versa). Naturally, our two sons were exposed to heavy doses the outdoors while growing up. At six weeks of age our oldest son, Matt, was snow camping (we had not expected the snow storm). Matt is currently in Telluride, Colorado, working construction for the summer. He will return to college in Rochester, NY next fall. Our younger son, Charlie just finished his freshman year at Arizona State University and is spending the summer catching up on what all his high school friends are up to, as well as helping us get ready to move.

Both Cathy and I were born and raised in California and are looking forward to returning to the West. Here in Geneva, Cathy edits the Cornell biological control web site, and she plans to continue this activity in Bozeman (all one needs is a computer and an internet connection!). Beyond biocontrol, she is looking forward to meeting people in the department and enjoying the low humidity. I am hoping that I can still ride my bike in to work much of the time and that I will have some time to learn the native plants of Montana. We both plan to root for the Bobcats and e part in campus activities--something we have missed here in Geneva because the main Cornell campus is over an hour away.

Most of the remaining non-professional aspects of my life are better told after a couple of beers and probably portray characteristics inappropriate for an incoming department head. I do enjoy playing the guitar and the flute, tennis, skiing, fishing, and running, but I am not really good at any of them. In college, I played water polo my first two years and climbed the walls of Yosemite my last two. The climbing stuck, and last year I still was able to scamper up a few peaks in southern Colorado with son Matt and an old climbing buddy. We may be old but we're still game.

The Follow the Grain Taiwan Trip
By Deb Habernicht and Jackie Kennedy

Jackie Kennedy, Martha Mikkelson and I recently returned from a 10-day trip to Taiwan that concluded the first College of Agriculture course "Follow the Grain". In addition to us Plant Science types, the team consisted of Vince Smith and Jim Johnson (Ag. Econ), Brett Holzer, (Stanford), J.R. Peterson, (Wilsal), Steve Johnson, (Mott, ND), Joel Schumacher (Malta), Rob

Ridgeway (Stanford), Mykel Mathews (Roberts), and Ann Stradley (Belgrade).

: purpose of the trip was to gain an international perspective of the grain industry. The course was designed to give students an overview of the grain industry – from plant breeding, crop production, management and marketing, to domestic and international shipping and processing. Taiwan was selected because they import 1 million metric tons of wheat per year; 97% is imported from the U.S. The trip was sponsored through a number of grants, including ones from MSU's Trade Research Center, the USDA and State of Montana. Mei Mei Wang, a representative of Montana's Department of Commerce in Taiwan, and Mr. K. H. Lu the U.S. Wheat Associates Office in Taipei coordinated the trip. They organized meetings for us with government officials, researchers, milling and baking company representatives and a frozen dough and noodle manufacturer. I was overwhelmed by everyone's hospitality. Everywhere we went there was a welcome sign announcing our visit and the highest executives met with us. We were truly honored. The visit to Taiwan was timely since we were able to visit with a ıple of people on the Taiwan noodle flour team that ıited MSU in April. One advantage of having such a diverse team was that we learned beyond the scope of our own interests. For example, as a team we were interested in a broader scope than wheat quality. However, my interests were also satisfied; I heard the echo from the recent Taiwan noodle flour team. Bread and noodle makers want a wheat flour with good color stability, noodle biting quality and bread volume. The team in discussion often brought up hard white wheat issues. The large product manufacturers did not share the same interests as the wheat flour miller; they did not seem interested in white wheat or dual-purpose wheat flour. Simply, they just want the best noodle flour for noodles and the best bread flour for making bread. Montana is famous for it's wheat; the complaints were not about the wheat – but about the cleanliness of the grain. Mr. Kuo, Director of the Chia Hsin Food and Synthetic Fiber Co. (flour mill), joked about importing land to Taiwan, but not in the form of dockage and foreign material. Twenty-two million people occupy ıwan and it is about the size of Maryland and W. ırginia combined. In addition, only about 25% of the land is suitable for farming because 2/3 of the island are mountains. For me, the trip certainly broadened my perspective on the global wheat market and heightened my awareness to the impact that countries like Taiwan have on our wheat industry as they enter into the World Trade Organization. None the less, it was great to be able to eat the very foods that fuel the effort in developing new varieties for the international market. A great opportunity for Jackie and I was learning how to make steam bread. Mr. Ron Lu, U.S. Wheat Associates, invited us to participate in a hands-on workshop put on for local school lunchroom cooks at the China Grain Products Research & Development Institute. Steam bread is a staple food in wheat growing areas like North China, and popular for breakfast in countries like Taiwan. Flour for steam bread is a blend of 60% DNS and 40% HRW, a market for Montana wheat.

If you would like to hear what some of the students had to say, check out an article written by Carol Flaherty at http://montana.edu/wwwpb/ag/follow2.html.

Here we are at the port in Taichung, Taiwan.
Back row left, Brett Holzer, J.R. Peterson, Steve Johnson, Vince Smith, Joel Schumacher, Jim Johnson, Rob Ridgeway,
Front row left, Sun Hua Lou, (Director of the Far Eastern Silo and Shipping Corp.), Mykel Mathews, Jackie Kennedy, Deb Habernicht, Ann Stradley, Martha Mikkelson.

of Jack's is cooking. He has cooked for extension events and retirement parties and becoming a chef would definitely be his second career choice.

Lab of the Month-Plant Disease Clinic (526 LJH)
Martha Mikkelson

A summer day in the Plant Disease Clinic usually begins with the arrival of a cartload of boxes from all over Montana. In 525 Leon Johnson, Clinic operator Martha Mikkelson then unveils a wide variety of diseased (sometimes decaying) wheat, alfalfa, spruce, cotoneaster, turfgrass sod, geranium, and other types of plant samples. These had been taken to county Extension agents by producers, nurserymen, ag businessmen, and homeowners. Over the course of a year, about 1000 disease samples come into the Clinic.

Martha scrutinizes each sample and then (depending on the disease suspected) often conducts lab tests to prove the identity of the problem. Each plant species is prone to a different set of problems. Since a wide range of environmental problems often cause plant problems, sorting out whether a pathogen or a factor such as weather or herbicides caused the problem ten is difficult. Also, disease organisms usually aren't readily visible on the plants and must be coaxed out for identification using such methods as microscope viewing, culture, or ELISA tests to name just a few. For all of these reasons, disease identification often requires a great deal of detective work. Devising appropriate control recommendations for the problem also is an important part of her job.

Under the direction of Jack Riesselman, Montana State University has had a Plant Disease Clinic since the 1970's. Many old-timers in the department probably remember Jim Miller, Dan Roddy, Rick Ruff, Doug Yount, Nancy Rupp, Joe Hudak, Ann Schwend, and others who spent one or more summers working in the Clinic. Martha has worked as the diagnostician since 1992 when she came to Montana as a greenhorn after finishing a Masters' program at North Carolina State University. When during her first week of work, a county Extension agent told her that a farmer had used an air seeder to plant his wheat, she remembers being impressed that Montana farmers re using airplanes to seed their crops!

For Martha, the highlight of working in the Clinic has been the opportunity to work individually with Montanans from every part of the state and to see such a variety of diseases on all kinds of plants. Although the continuous stream of dying spruce trees does get tiresome, many samples have been quite interesting. One memorable one was the 30 foot shelterbelt trees that literally were tipping over due to girdled roots (growing in a circular pattern near the trunk) that couldn't support the tall trees. She has identified several diseases never reported before in Montana. As a testimony to fungal globe-trotting, she found Fusarium wilt on commercial basil that originated from infected seed grown in Italy (where it also was a new disease!).

New Employee

John Ansley has recently joined the Lab of Dr. Barry Jacobsen. He has lived in the Gallatin Valley all of his life, being raised in Three Forks. John received a BS in Biological Sciences from MSU in 1995 and a BS in Education in 1997. Hobbies include hunting, fishing, and collecting antlers.

June Birthdays:

Ronald Ramsfield	15
Jackie Kennedy	15
Luther Talbert	18
Eileen Carpenter	22
Ron Larson	30
Tim Anderson	30

Happy Birthday!

Move to ABS Building

The following is a tentative moving schedule for those who are moving to the ABS Building:

ıe	10	Office
	10-14	Cereal Quality Lab
	11-15	Mike Giroux
	14-16	Dave Sands
	15-17	Barry Jacobsen
	16-18	Jack Riesselman & Clinic
	17-21	Don Mathre
	21-23	Tom Blake
	22-24	Gary Strobel
	23-25	Pam Border
	24-28	Mark Young
	25-29	Dan Bergey
	29-30	John Sherwood
July	1-2	Bob Sharrock/Rich Stout
	2-3	Matt Lavin
	6-7	Adam Richman

Germany Trip

George Rice

Early in May, Mark Young and I had the fortunate opportunity to visit the lab of Wolfram Zillig at the Max-Planck-Institute of Biochemistry in Martinsreid ·rmany. As a new Ph.D candidate, I found this ..perience to be highly rewarding from both an educational and cultural standpoint. Professor Zillig is a highly animated character. At the age of 73 years, he has enjoyed an illustrious carreer at the Max-Planck-Institute as a director of his own department amassing a wealth of research in the field of thermophilic Archaea. It was definitely an honor to have the opportunity to meet Zillig after having read so many of his research articles. He and his present post-docs were more than gracious in the hospitality that they showed us. Each one of them took time out of their busy schedules to show us around and acquaint us with their present projects. We learned a lot in a short period about the unique protocols that this lab has developed in isolating many new strains of archaea over the past 30 years.

This was my first trip to Europe so everything was new to me. I especially enjoyed the quality of the food that one found (even in the cafeteria), and the omnipresence of public transportation. One can even ·e the local bus or train with your trusty dog. This ıip instilled in me an immediate appreciation for the international scope of science in general, and the opportunities that this allows in broadening ones perceptions.

Scholarship Awards

Congratulations to the following undergraduate students on their awards:

Cheryl Peterson	$250
Deven See	$250
Jennifer Thompson	$750
Greta Graming	$750
Justin Overcast	$250

Employee of the Month-Jack Riesselman (526 LJH)

Jack has been working as the Extension Plant Pathologist at MSU for the last 20 years. He is the one growers call when they have problems with cereal and alfalfa diseases. He does seed treatment trials and heads up the plant disease clinic which is basically a problem solving unit. He has enjoyed working with the growers in Montana immensely. They are very good about taking the best advice Jack has to offer but not blaming him if things don't always work out as planned. Jack initiated the television program called Montana Ag Live about 5 years ago with a seed grant from U.S. West. They do 16-18 programs a year. Hayden Ferguson, a retired soils professor with a wide knowledge base, is the moderator and makes the show very enjoyable to watch. Because of the wide variety of guests with varying areas of expertise, it is always very informative.

Jack's wife Marcia works as a research specialist in Jim Cutler's Lab in the Microbiology Department. Their oldest daughter Christina has been in Italy for the past year. She said they have a much more laid back approach to education. The professors don't care if you come to class or not. All the classes are in Italian so she has become fluent in that language. Lynne, Jack's younger daughter, is going to be a senior at BSHS, is semi-fluent in Spanish and a very good oboe player.

Jack's favorite hobby is water fowl hunting and he is very active in the National Ducks Unlimited Organization. He has a Golden Retriever named Oliver who is incredibly strong willed so Jack sent him off to a boot camp for hunting dogs in Billings where he is learning a lot about obedience. Should he experience a momentary lapse, there is always a plastic baseball bat and an electrical stimulus to remind him. Jack will be picking Oliver up on July 1 by which time he should be one very well trained hunting dog. Jack also enjoys collecting wines and has about 700-800 bottles in his temperature controlled cellar. When life gets stressful, Jack heads for the cellar. Another hobby