Western Wheat Growers Conference  
by Dr. Mathre  
July 16-17 was the date when 46 scientists interested in wheat variety development and small grain diseases met jointly in Bozeman as the Western Wheat Workers, and the USDA regional coordinating committee #97. An indoor reporting session was held on Friday morning when explanations were given of what was happening to the wheat crop in the various Midwestern and western states represented. The scab epidemic of the Red River Valley was just getting underway but was thought not to be as serious as occurred in previous years. Leaf rust was reported to be more severe in the Midwest than normally occurs.  
Field trips to the Post Farm occurred on Friday afternoon and Saturday morning to view the wheat breeder's plots associated with variety development. Also viewed were the cereal disease plots showing work on seed treatments, and wheat streak mosaic virus resistance. Two graduate student thesis problems are associated with the latter. The meeting concluded with a visit to the field plots of Western Plant Breeders located just west of Bozeman to view their wheat and barley variety development work. Perhaps one highlight of the meeting was the Friday evening BBQ hosted by Jack Riesselman which featured his famous grilled pork chops. Despite a cool east wind, everyone had a great meal and a fun time. Many thanks to all in the Plant Sciences Department who helped make this meeting very worthwhile and enjoyable.  

MSU Horticulture Farm Update  
by Rick Bates  
Plant Science faculty, staff and students continue to work toward developing the MSU Hort Farm into a center for horticulture teaching, research and outreach in the Gallatin Valley. Horticulture students maintaining the farm this summer are Jason Lamb (Turfgrass Science), Pete Zuck (Horticulture Science), Eric Barnes (Landscape Design), and Cheryl Petersen (Horticulture Science). Feel free to stop out and see some of the many projects underway.  

Teaching  
Market Gardening: for the third year in a row David Baumbauer taught this popular summer course designed to give students hands-on experience in small scale sustainable production of vegetables and herbs for defined local markets. Student teams engaged in a number of active learning exercises designed to introduce them to the challenges associated with greenhouse, raised bed and in-ground production systems.  

Research  
Turfgrass: NTEP (National Turfgrass Evaluation Program) trials were established to evaluate 26 Bentgrass varieties at putting green height, 29 Bentgrass varieties at fairway height, and 79 fine fescue varieties. Perennial ryegrass evaluations will begin fall 1999. Field testing of MT 483 and MT 683 also was initiated. These experimental dwarf bluegrass varieties developed by MSU’s George Evans require less mowing than conventional varieties (Gough and Lamb).  

Ornamentals: Quercus macrocarpa, Salix sp. ‘Prairie Cascade’ and Alnus glutinosa were evaluated for winter desiccation tolerance in a ‘Pot-in-Pot’ production system; studies were initiated to analyze root morphology of selected species grown in sand/gravel bed systems and to assess desiccation tolerance after transplanting (Bates). In addition, a Dutch Elm Disease resistant elm trial was initiated. ‘Valley Forge’, Jefferson’, ‘Patriot’, and ‘Prospector’ varieties of Ulmus americana show resistance to the
disease but have not undergone extensive hardiness testing in the intermountain west (Pohl).
Vegetables: preliminary research was initiated

stressing the effects of wheat gluten meal and various
mulching systems on weed populations in vegetable
plantings (Gough).
Plant Pathology: Ongoing research investigating
biological and chemical control of fusarium early
blight and rhizoctonia on seed potatoes (Jacobsen)
Entomology: Survey of solitary bees and wasps and
native leaf-cutter bee populations. (O’Niell and
Jensen)

Outreach
This season the MSU Hort Farm in conjunction with
the Gallatin Valley Food Bank developed a one acre
community garden called ‘The Giving Garden’. This
partnership represents “a community-wide effort to
increase consumption of locally grown fruits and
vegetables, improve nutrition, reduce hunger, and
strengthen the bonds of friendship...”. (Contact GV
Food Bank or David Baumbauer for volunteer hours or
detailed information) In addition, the Hort Farm this
season has hosted the Bridger Outdoor Science
School, Gallatin County Mens Garden Club, Cascade
1st with School Vo-Ag, 4-H World Congress, and Ag in
Montana Schools.

For any questions concerning activities at the MSU
Hort Farm, please contact Rick Bates, 994-6772;
rbates@montana.edu.

Grants
Tom Blake
NSF-EPSCoR, “The Virtual Center for Plant
Genomics”

Search for a Plant Biochemist
by Tom Blake, Head of Search Committee
The search for a plant biochemist is proceeding
reasonably well. We have over 35 applicants. About a
quarter of our applicants were deemed unqualified, but
the remaining pool contains several obviously
excellent candidates. Their skills and
accomplishments vary enormously, but all have
strengths. The committee will be finalizing a list of
preferred candidates in the next few days, and will be
requesting letters from their referees. We expect to
conduct telephone interviews with half a dozen semi-
finalists in August, and to have interviews with three
or four finalists in September.

Search for Turfgrass Professor
by Bob Gough
The candidate search for the turfgrass position is in full
swing. Deadline to begin screening applicants was July
15 and we have nearly a dozen applicants. The search
committee has whittled the pool of applicants down to
three strong possibilities and will meet the first week
in August to follow through on reference checks for
these folks. Our plan is to interview the strongest
candidates early in the semester in part because our
new department head will be on hand to participate in
the interview process and in part because we plan to
have the candidates interact with our student body. If
all goes well, we’ll have someone on board to handle
turf Spring semester.

Horticulture Hotline (1-877-GRO-TIPS) continues
to run smoothly and has been very well received by the
public. One state senator commented to our Vice-
Provost for Extension that the hotline “is the best
thing we’ve done down here in 20 years”. Whether you
agree with that or not, it is certainly a strong positive
comment for the continuation of this service.

The Hotline commenced operation on April 1 and is
staffed from 3-5 p.m. every weekday. Martha has
handled the majority of the calls and has done a great
job. Advertisement for the service was slow in getting
out around the state and that, coupled with a cool
spring, resulted in relatively few calls during April and
May. Things heated up after that. To date we’ve
handled approximately 600 phone calls. The service
was to cease 1 July, but I received additional funding
to keep it going through September 30. If things
continue to run smoothly and successfully, I will
compile the pertinent data this fall and apply for
funding to continue the service next year, perhaps with
additional hours and additional staff.

Scholarship Awards
Congratulations to Jeerapun Worapong on receiving
the International Graduate Student Award. These are
based on GPA, recommendations, and the commitment
to go back to their native country and use the
knowledge they have gained here.

Field Days - Conrad
by Jamie Baley
The annual field days have come and gone. So, if you
missed them here is a little recap of the events at the
Western Triangle Experimental Station in Conrad
Montana. Greg Kushnak, Plant Science Dept., and Grant Jackson, LRES, put together a nice tour for the 40 local growers, industry representatives, and university personnel present. The Entomology duo of Wendell Morrill and David Weaver discussed recent advancements made in the recurring problem of wheat stem sawflies. They are seen as a flying menace because their larvae feed within wheat stems, cause cutting near harvest time, which result in added costs and headaches in harvesting. From there I presented a wheat varietal test, set up by Sue Brumfield and Mark Young, that displayed the variation in symptoms between popular wheat varieties inoculated with wheat streak mosaic virus. Wheat streak damage had been minimal around the state the last five of years, but the Triangle and Central regions have seen a marked increase in damage this year. This varietal test served as a nice segue to my thesis project on WSMV resistance. And, in the end, Luther Talbert and Tom Blake discussed recent varietal developments within their respective breeding programs. Most importantly, all researchers were able to present their efforts to benefit Montana Agriculture.

Jarty Raffelson had the following to say about her experience at Field Days:
On July 12, 13, and 14, I traveled to Conrad, Havre, and Moccasin for Field days with Luther Talbert and Tom Blake. It was a great learning experience. It was nice to finally learn what Dr. Talbert and Dr. Blake do all day. For a while I wasn’t real sure. I also learned about GPS and other small grains. It was nice to be out of the office but it is also nice to be back.

Search Committees
John Sherwood and Bob Gough will be serving on the Provost and Vice President for Academic Affairs Search Committee. The Committee hopes to name a new Provost by the Spring of 2000.

Lab of the Month - Wheat Genetics Lab (419 LJH) by Dr. Luther Talbert
A primary responsibility of the Spring Wheat Breeding and Genetics Program is to develop varieties that Montana farmers will want to grow and the international grain trade will want to buy. Susan Lanning manages the varietal breeding project, working closely with colleagues in Bozeman and at research centers around the state. The variety ‘McNeal’, which originated with the project of the previous spring wheat breeder Harry McNeal, was finished off and released by our program a few years ago. If you ever drive in the wheat growing areas of Montana in late July and August, the dark-colored wheat you see out your window is likely to be McNeal. (If you see a light-colored wheat with a bunch of tall plants giving the field a rugged appearance, this may be our previous release, ‘Hi-Line’. These tall variants led to a great Ph.D. thesis, but growers were not too thrilled with them. They kind of annoyed the seed industry also). Our newest variety, Scholar, is undergoing seed increase by the Foundation Seed program and should be in farmers’ fields in a couple of years. The breeding program is based on crossing and selection, and a lot of hard work by Susan and her crew of students (Kludia Goga and Ryan Rosselott work for Susan this summer). We work closely with the Cereal Quality Lab to insure that our varieties have good end-use quality so that the grain trade will continue to buy Montana-grown wheat.

In addition to the applied breeding program, we conduct more fundamental research related to wheat breeding, genetics and evolution. Our lab is now located in 419 LJH, shared by Bruckner, Martin and Talbert. When you drop by, you will see Nancy Blake, Jamie Sherman, Yui Vanichanon, Gail Sharp, Kelly Titkemeier and Travis Gange, hard at work no doubt. If I promise not to spill anything dangerous or start a fire, I am hoping that they will let me back in the lab as soon as harvest is over. We do a lot of different things in the lab, mainly based on 1) whether it seems like fun, 2) whether someone will pay for it, and 3) whether it might be important. I have trouble judging the last one, so tend to rely heavily on numbers 1 and 2 to provide direction. I like to think that everything we do is related somehow to genetic improvement of wheat.

As an aside, I would like to thank everybody for your patience and assistance during the past year or so. It has been an honor to serve as your department head, and I wish you all the best.
Employee of the Month-Jamie Sherman (419 LJH)
My Life by Jamie Sherman (ghosted by N. Blake)

Jamie Sherman is a research assistant professor working with Luther Talbert. She started working with the Spring Wheat group in 1997, specifically on the Karnal Bunt project. Her research project is the introgression of barley genes into wheat, particularly Karnal Bunt resistance, and involves verification of introgression by in situ hybridization and PCR. She is well qualified for this project as she had many years of experience in cell biology and cytology. She received an M.S. from Stephen Austin State University for work on fungal meiosis and her Ph.D. in 1994 from Colorado State University for research on synaptonemal complexes of tomato. Before moving to Montana she was a postdoctoral associate at Colorado State University and also taught genetics at two community colleges in Colorado.

Jamie moved to Montana in 1997 when her husband, "Vark, became the priest and rector at St. James Episcopal Church. She has three children: a son who is a sophomore at MSU, a daughter who is a 4th grader and a second son just entering 1st grade, as well as two large dogs. She is also very active in her church and volunteers at Whittier School.

When she gets a little time away from her job, family and community activities, she loves to run, hike and cross-country ski. She finds Montana a great place for all these hobbies.

Office Corner
Concerning your August 11th paychecks - do not spend your check until you actually have it. Payroll is anticipating some problems due to the new Banner system. Please verify that your check or pay stub is accurate. It may not be exactly the same as previous months but there should not be a large difference. If you have questions about your check, please come to the office and we will call in to the Hotline and report.

Future Plant Scientist
Congratulations to the following first time parents: Konduru (Krish) Krishnamurthy (Giroux Lab) and his wife welcomed their daughter Sunitha into the world on July 13. She weighed 6 lbs. 11 oz.

Ellen Li (Young Lab) and her husband welcomed their daughter into the world 6 weeks early on June 6. Annie weighed 3 lb at birth but now weighs 9 pounds and is doing great.

August Birthdays
Barry Jacobsen 6
Jeung Ji-ung 7
Albert Scharen 9
Joanne Jennings 9
Ruschelle Edlin 15
James Baley 25
Kurt Blunt 25
David Sands 30

Happy Birthday!