GMPRC Update

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Fall 2008

GMPRC hosted several groups of visitors during the past few months. We hosted legislative aides from the Kansas Congressional delegation and shared information about our research programs. Two stakeholder groups, the **International Association of Operative Millers** and the **American Baking Association**, held technical meetings at GMPRC. In addition, we hosted a visit from a group of Chinese scientists interested in our wind erosion research. ***Right:*** Tom Pearson, agricultural engineer in ERU, shows visiting legislative aides his imaging sorting device. ***Left:*** Tom Herald, Research Leader for GQSRU, speaks to visitors from the American Baking Association.

On the research side...

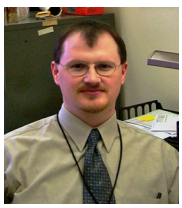
Dr. Frank Arthur, an entomologist in the Biological Research Unit at the GMPRC, has a specific objective for his research: To develop information that will be of value to users and practitioners in the field.

Dr. Arthur's area of research is insect pest management in raw commodities, warehouses, store houses and other grain storage facilities. His research is focused on reducing insecticide inputs, examining alternative control measures, and determining the biological and environmental factors that affect performance of insecticides. "We are also looking at ways to reduce reliance on fumigations to control insects in stored grains in milling and processing facilities," Dr. Arthur said.

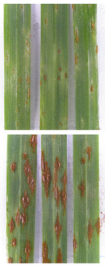
Dr. Arthur's research has led to new research areas such as a more efficient use of aeration to manage insect pests in stored grain. He and his colleagues have shown that an initial cooling cycle during summer will help reduce overall insect pest populations. Dr. Arthur is also looking at the distribution and efficacy of new aerosol formulations in mills and food storage facilities.

With all of the years of research, Dr. Arthur couldn't choose an area of research he was most proud of. "I can't just choose one accomplishment but I would say that I am proud of all of the research I have conducted that shows the importance of integrated control programs. Whether the management programs are for grain bins and elevators, mills, or sites where processed food is stored, pest management will be more successful with an integrated approach rather than one single component".

Grants and Award Winners...



Scott Bean
NPA's Early Career Scientist for 2008
Was awarded for his research contributions related to end-use quality of sorghum.



Mike Pumphrey
"Ug 99 Team to Combat New, Virulent Wheat and Barley Stem Rusts"
The team was recognized at the 61st annual USDA Secretary's Honor Awards for their excellence in enhancing protection and safety of the Nation's agriculture and food supply.

WERU
The Wind Erosion Research Unit has joined with Washington State University on a grant funded to study the impact of agricultural activities upon air quality and to develop an automated air quality forecasting system.

Community Interest...

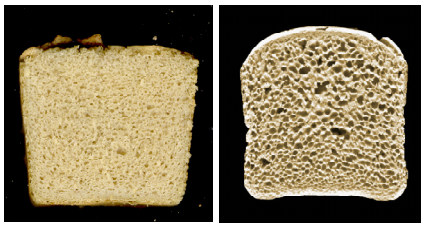
GMPRC employees are involved in many community projects. Laura McLaughlin and others coordinated October's Disability and Breast Cancer Awareness Month, raising fund for these two causes. We also continued our highway cleanup work.

The June 11th tornado that caused extensive damage to homes and businessed in Manhattan, and buildings at Kansas State University, also heavily damaged the Wind Erosion Research Laboratory. We will be rebuilding this laboratory near the GMPRC complex. ***Left:*** Tornado damage to the Wind Erosion Laboratory located on Kansas State University's campus. ***Right:*** GMPRC staff Kenlee Friesen, Frank Arthur and Kevin Fay pick up litter along Kansas highway 113: showing what "adopting a highway" means.

Spotlight...

Scott Bean, Research Chemist in the Grain Quality and Structure Research Unit, was selected as **NPA's Early Career Scientist for 2008**. He received this award for his outstanding independent and collaborative research contributions to solve industry problems resulting in new and more efficient uses of sorghum.

GMPRC: What were your main research goals?



Scott Bean: My research is focused on understanding the biochemical components in sorghum that are related to end-use quality of sorghum.

GMPRC: How will your research impact/benefit the food industry?

Scott Bean: My research should benefit the food industry by helping to improve the quality of sorghum based foods.

GMPRC: How long have you been working on your research project?

Scott Bean: I've been working on this project since 2001.

GMPRC: Has your research project led to any new areas to study?

Scott Bean: Yes it has led to new areas of study. We have made progress on forming a dough from non-wheat proteins that has properties similar to gluten.

Above: Non-wheat visco-elastic dough development.

GMPRC: How did you find out you were the Early Career Scientist Winner?

Scott Bean: Dr. Shanower came down and told me I think.

GMPRC: What research accomplishments are you most proud of?

Scott Bean: I am most proud of my work improving the analysis of cereal proteins and working on forming a dough from non-wheat proteins.

GMPRC: Anything else about your area of research and winning the Early Career Scientist Award....

Scott Bean: I'm fortunate to work with a great bunch of people and have an amazing lab group that does excellent work... They make me look good.