

# GMPRC Update

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Our mission at GMPRC is to conduct innovative research and develop new technologies to improve natural resource conservation and the production, harvesting, storage, marketing and utilization of grain to ensure a safe, abundant, high quality grain supply.

Comments or suggestions? Tom Shanower, Center Director, [tom.shanower@ars.usda.gov](mailto:tom.shanower@ars.usda.gov)

## On the research side...

Since research has been a part of Rhett Kaufman's entire life, it was no surprise when he decided to get his Ph.D. Kaufman, Biological Science Research Technician in GQSRU, has been with GMPRC since the fall of 2003. Starting out as an undergraduate research assistant, he quickly moved in to a federal position working on his Master's Degree under the supervision of Dr. Scott Bean. After obtaining his Master's Degree, he decided to get his Ph.D. because three of his close relatives have their Ph.D. in biology and he has always enjoyed being around and involved in research.

His current research is being conducted in the "Starch Lab" working on both the physical and chemical properties of cereal starches. In the lab, they are investigating the chemical differences in the starch utilizing many enzymatic techniques as well as analyzing the chemical structure of the starches. This research is helping Kaufman obtain his Ph.D. by focusing directly on grain sorghum. Within this, he has two main projects; both are multi-year field studies. The first project is to investigate the development of the starch and protein in sorghum while the grain is developing. The second project is a GxE study of several sorghum hybrids grown throughout the state.

The biggest obstacle that Kaufman faces is his preliminary exams to earn the Ph.D. Even though he is almost done with his classes, he still has another year of collecting samples in the field then finish up all of the lab work on the samples.

The goal of his current research is to provide a baseline measurement in starch quality and functionality for sorghum utilization. When he receives his Ph.D., he hopes to create a new method or improve on a current method for measuring the amylase content in cereal starches.



*Above: Rhett Kaufman, Biological Science Research Technician in GQSRU, is working to complete his Ph.D and has been conducting his research at GMPRC.*

## Changes at GMPRC...

Spring brings many changes. GMPRC is also changing. The Biological Research Unit (BRU) is changing to the Stored Product Insect Research Unit (SPIRU). This name will more accurately describe the focus of the unit. Also, the Wind Erosion Research Unit (WERU) and the Engineering Research Unit (ERU) recently combined to form the Engineering and Wind Erosion Research Unit (EWERU). This change was precipitated by a loss of personnel and the need to share resources. The important work in these Units continues, just under a different name.

# Retirement...

After almost 37 years of government service, Barb Marn has decided to retire. Marn, purchasing agent at GMPRC, is proud to say that she has never once dreaded coming to work, and still enjoys her job after “all these years.” She is looking forward to more grand kids, traveling and mastering her new embroidery machine. “I have thoroughly enjoyed all the great people I have met and worked with here at GMPRC. I will miss them,” Marn said.

## 25 Years....



*Dan Brabec, Engineering Technician, has been with GMPRC for 25 years.*

**GMPRC:** How did you get started with GMPRC?

**Brabec:** Cleaning a garage. Sounds odd, doesn't it. I graduated from KSU Agricultural Engineering in

1982. That summer, I worked the wheat fields of North Texas, Oklahoma, Kansas, Nebraska, and South Dakota. But, in the fall, I came back to Manhattan because my girl friend (now my wife) was going to school. That fall, I was doing odd jobs like painting and yard work. For one job, a guy called me to clean a garage of his rental property. He was the research leader of the engineering unit at that time. After some discussion, he asked me to come and work at the lab for the engineering unit.

**GMPRC:** What research project have you most enjoyed working on?

**Brabec:** Dust explosions, grain dust'in, dough mixing, bug squishing, seed sorting???

The winner is . . . The electronic work to run a single seed weigher. It was kind of a surprise that I could do it. I didn't know that I had it in me. Also, the other engineers at that time were not able to figure the circuit out, so I was proud.

**GMPRC:** What has been your most rewarding experiences working at GMPRC?

**Brabec:** Friendships and teamwork. Friends like Duane Walker, Chaz Martin and others. Teamwork is always good, pulling together a variety of people to accomplish a bigger-than-self task.

**GMPRC:** Did you think you would be working here 25 years later?

**Brabec:** No. In the early year, I thought, geez, isn't there something better. But, when you look at the big picture, it is a decent job. The facilities, equipment, and people are good. And with promotions and benefits over the years, it has worked out for well me.

**GMPRC:** What have you like best about your job?

**Brabec:** Paycheck. Flex-time, Learning.

**GMPRC:** Is there anything else you would like to add?

**Brabec:** I am still looking for my million dollar idea. I also play the lottery once in a while and plan to win it.

We are all valuable, but we are all replaceable. Take the job one year at a time and look at your options. I have always tried to do a good job, be innovative, constructive, flexible, helpful . . . Eventually, we get our rewards.



*Margo Caley, Food Technologist, has been with GMPRC for 25 years.*

**GMPRC:** How did you get started with GMPRC?

**Caley:** I received a call at my home (my parent's home) in May 1971 from Karl Finney who was the Research Leader of the Hard Winter Wheat

Quality Lab. I was just graduating from Manhattan High School and was planning on attending KSU; Mr. Finney had offered me a summer job with a continuation of employment as a student while attending university. How did Mr. Finney know who I was? My dad was Dr. John Shellenberger, Department Head of Grain Science and Industry where the HWWQL was located. I graduated in May 1975 and was offered a full time position with the HWWQL as a state employee. The same month I graduated the experimental bake lab went under remodeling to increase the bake lab to include two bake stations. I worked just short of ten years as a state employee until my position with the USDA in November 1983. I now have 25 years with the USDA but I also have 9+ years as a state employee and 4 years as a student employee. I started just short of my 18th birthday; if someone had told me then I would still be here at the age of 55 I would not have believed it!

**GMPRC:** What research project have you most enjoyed working on?

**Caley:** In the experimental bake lab we use three baking methods to provide technical data to wheat breeders and other grain scientists. We bake 100-g pup straight dough; 300-g sponge & dough and 10-g micro bread making test. It is the 10-g micro bread baking test that I love to work on the most.

The 10-g micro bread test was developed by our very own Mr. Merle Shogren in 1969. As a college student I would watch Mr. Shogren very carefully as he baked the micro method and I believe the time spent watching Mr. Shogren definitely trained me to be an expert in the 10-g micro bake.

**GMPRC:** What had been your most rewarding experience working at GMPRC?

**Caley:** My most rewarding experience working in the experimental bake lab comes around every year as I bake and evaluated samples for the Wheat Quality Council. The Wheat Quality Council meets every year in February in Kansas City to evaluate new wheat varieties that improve the value of wheat to the supply chain in the United States. A panel is comprised of all the folks who actually baked the samples; we give our reports and compare opinions of each variety. I am always interested to compare my data with other lab data.

**GMPRC:** What do I like best about my job?

**Caley:** The people; absolutely the people. The HWWQL from the very beginning (1937) has the most friendly, kind, good humored, scientific minded folks anywhere! We are family; we are team players and take the work we do very seriously. Somehow we have a lot of fun but are there for each other in sad times too. I challenge anyone to find a better place to work; find better folks to work with.....you won't find it!