

# More Good Things are Happening in the Department of Grain Science & Industry!!!

GSI State of the Department Seminar  
Manhattan, Kansas  
April 30, 2010

Dr. Dirk E. Maier  
Professor and Head



**THANK YOU!!!**

**CONGRATULATIONS!!!**



# KSU Milling Industry Department – A PRACTICAL DEPARTMENT

- "The Department of Milling Industry is one of the most practical and beneficial departments in the college, none the less so because it is unique in the West and almost so in the United States. Particularly appropriate is it that such a department should be in existence in the wheat growing state of Kansas. It represents not only public service on the part of the college as an institution but also public service on the part of the students who are prepared by the department to do efficient work for the benefit of Kansas and her people."
- Published in The Kansas Industrialist, the weekly newspaper of the Kansas State Agricultural College, which was the name of Kansas State University when this article was published on May 30, 1914



# Vision for K-State's Grain Science & Industry Department

*"The **global** education, research and technology transfer **leader** for the grain & plant-based food, feed, fiber, fuel and bio-products supply chains."*



**“Good is the enemy of great!”**  
- Jim Collins



# Good to Great...

- Transformation of an organization from good to great is a process of **build up** followed by **break-through**, broken into three broad stages:
  - Disciplined people
  - Disciplined thought
  - Disciplined action



# Disciplined People...

- Level 5 Leadership
  - University/College administrators
  - Department head
  - Committed faculty
  - Experienced staff
  - Student leaders
- ➔ Focus is on building a **great organization**
- ➔ Ambition is for the cause, the organization, the work to be done



# New K-State Administration



Dr. Kirk Schulz  
President



Dr. April Mason  
Provost &  
Senior Vice President

Dr. Ron Trewyn  
Vice President  
for Research



Dr. Gary Pierzynski  
Interim COA Dean &  
Interim KSRE Director





# Disciplined People...

- First Who then What
  - Full contingent of the right faculty expertise
  - Optimum mix of support staff expertise & experience
  - Undergraduate and graduate students with whom we can partner to successfully complete their BS, MS and PhD degrees
  - Committed stakeholders who support us through thick and thin
- ➔ Focus on having the right people on the bus and in the right seats



# Staff Changes



Brenda Heptig  
Undergraduate Student  
Services Coordinator



Liz Savage  
Human Resource  
Specialist



Brandi Miller  
Distance Education  
Program Coordinator

Naaz Yasmin  
Business Office  
Accounting Specialist



Rick Umscheid  
Business Manager



Heather Markson  
Department Head  
Administrative Assistant



*KSU Grain Science & Industry Faculty  
August 2009*



# Faculty Excellence Recognition

- 2009 Commerce Bank Outstanding Teacher Award @ Kansas State University
- COA Fall 2009 Commencement Speech

Prof. Dave Krishock  
Bakers National  
Education Foundation  
Instructor of Baking  
Science & Management



# Faculty Excellence Recognition

2010 AACCC International  
Young Scientist Award

Dr. Sajid Alavi  
Associate Professor of  
Grain Science & Industry



# Faculty Excellence Recognition

## 2010 AACCC International Fellow Award

Dr. David Wetzel  
Professor of  
Grain Science & Industry



**Elite group of K-State Professors who are AACCI  
Fellows: Ponte, Hoseney, Seib, MacRitchie, Lookhart,  
Walker**

# Faculty Excellence Recognition

## American Feed Industry Association Distinguished Service Award

Dr. Keith Behnke  
Professor of  
Feed Science & Management



**Elite group of K-State Professors who are AFIA Hall  
of Famers: Shellenberger, Pfost, McElliney, Schoeff**

# Faculty Excellence Recognition

2010 IAOM Thaddeus B.  
Bownik Outstanding  
Service Award

Dr. Jeff Gwirtz  
G.M. Ross Associate Professor of  
Milling Science & Management





# Achievements and Recognitions



Hyma Gulya  
PhD Brabender  
Fellowship



Daniela Nath deOlivera  
MS Brabender  
Fellowship



Liming Cai  
2010 National Starch  
Outstanding PhD  
Graduate Student



E Xi  
2010 National Starch  
Outstanding MS  
Graduate Student



# Achievements and Recognitions



Sarah Butler  
2010 Outstanding Senior  
BSM Student

Kelsie McGie  
2010 Outstanding Senior  
MSM Student

Dr. Dick Hahn Student  
Leadership Awardee



“Nothing is more important in changing an **attitude** of a team than honesty. I’ve never been a believer in saying, “Everything is good.” I believe in being positive, but I believe more in being **honest!**”

- Coach Bill Snyder



# Disciplined Thought...

- Confront the Brutal Facts
  - Lack of financial discipline
  - Indebtedness and spending beyond our means
  - Living off our past glory
  - Taking stakeholder support for granted
  - Neglecting importance of our teaching mission
  - Failing and antiquated facilities (incl labs, classrooms)
- ➔ Identifying and acknowledging our weaknesses and threats to our future success

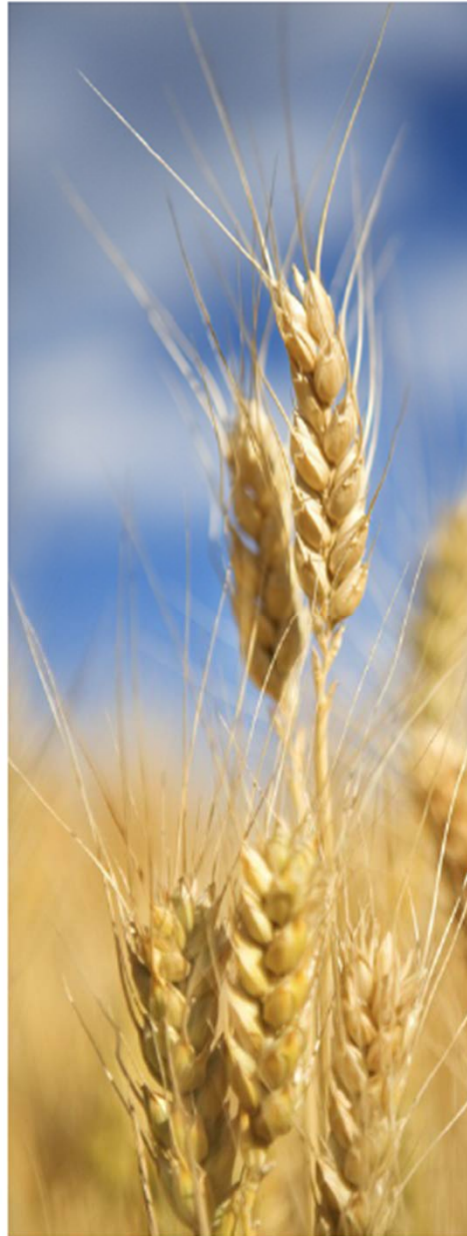


# Our BIG Budget Challenge...

**→ *How did we deal with ~\$350,000 in funding cut in FY'10 and what about FY'11?***

- Gave up three faculty positions for FY'10
  - protected faculty, staff, GRAs/GTAs, operating funds
- No further budget cut expected for FY'11 but...
  - obtained permission to refill 2 faculty positions open due to retirements of Drs. Behnke and Haque
  - plan to rehire Bob Bennett as part-time recruiter
  - Huseyin Dogan will continue as Instructor
  - will need to hire replacement for Sam Hanni
  - need additional Instructor to support MSM program

# Alumni, Friends & Stakeholder Support...



*2nd Annual  
Outstanding Alumni  
& Service Awards  
and  
Scholarship &  
Awards Banquet  
April 14, 2010*

*Department of Grain  
Science & Industry*

*International  
Grains Program  
Building*



# Disciplined Thought...

- Hedgehog Concept
  - See updated vision and mission statements
  - See our top initial priorities
  - See our Strategic Plan
- ➔ Being the best we can be at what we are best at in the world
- ➔ Being deeply passionate about what we do
- ➔ Building on our strengths; taking advantage of new opportunities



# Mission of K-State's Grain Science & Industry Department

*"To educate students and professionals, conduct innovative research, transfer new technologies and knowledge, offer high-quality outreach programs and services to meet the needs of the global grain & plant-based food, feed, fiber, fuel and bio-products supply chains."*





# Initial / Continued Priorities

- **Grow our student enrollment**
- **Grow our research enterprise**
- **Grow our outreach efforts**



# Strategic Plan Themes (DRAFT)

1. Educate undergraduate and graduate students, and industry professionals.
2. Conduct innovative basic and applied research, and transfer new technology and knowledge to end users.
3. Offer high-quality outreach programs and services to meet domestic and international customer needs and stakeholder expectations.
4. Recruit, retain, reward and develop high quality faculty, and professional and classified staff.
5. Develop, maintain and utilize state-of-the-art facilities and equipment.
6. Broaden funding base and improve financial stewardship.



# Strategic Plan Themes (DRAFT)

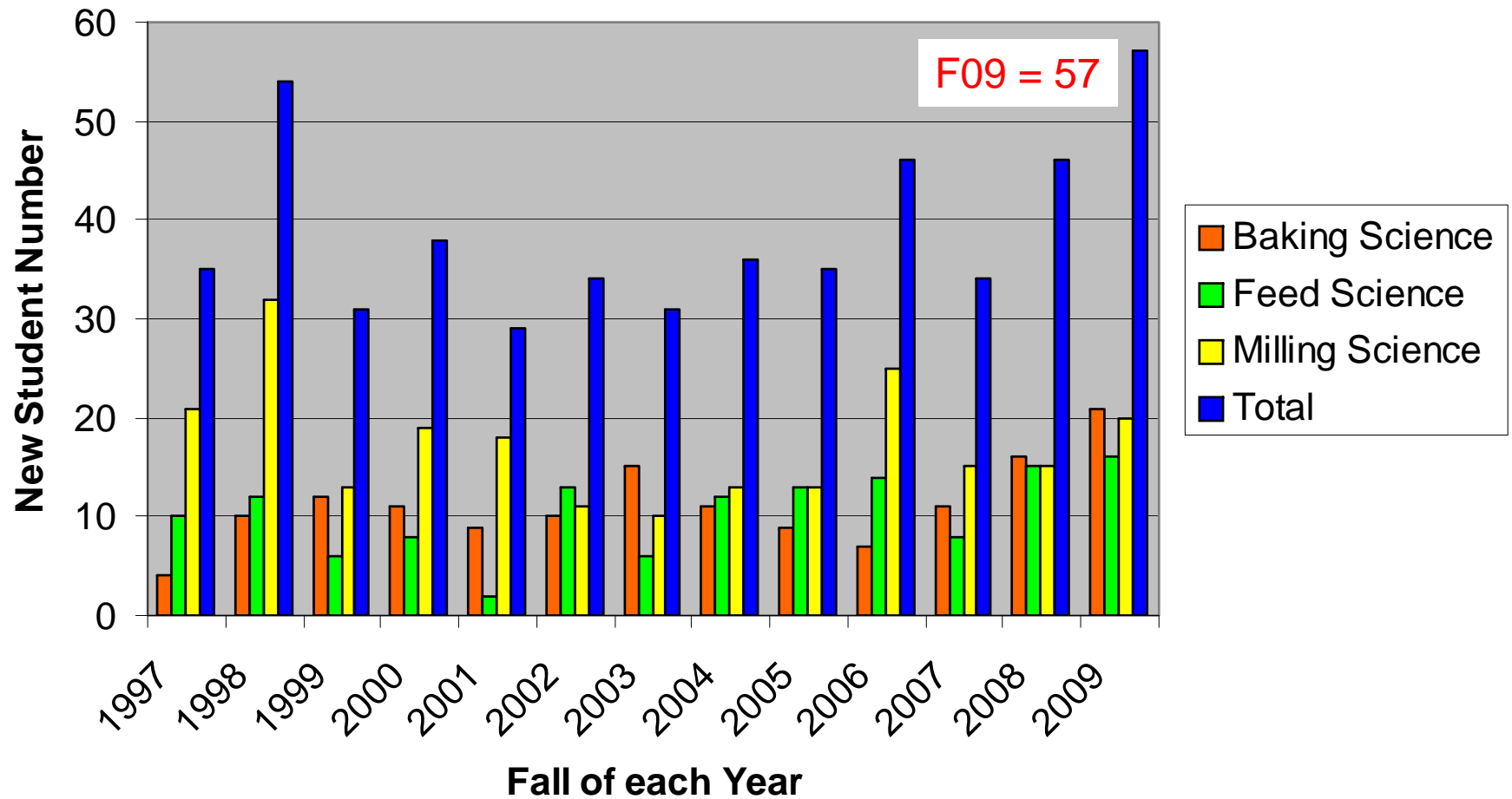
1. **Educate undergraduate and graduate students, and industry professionals.**
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*“The Next Generation of Professionals  
for the Global Grain & Feed Industry”*

## New Student Enrollment - Fall 1997-2009





# Keys to Increasing UG Student Enrollment in Grain Science & Industry

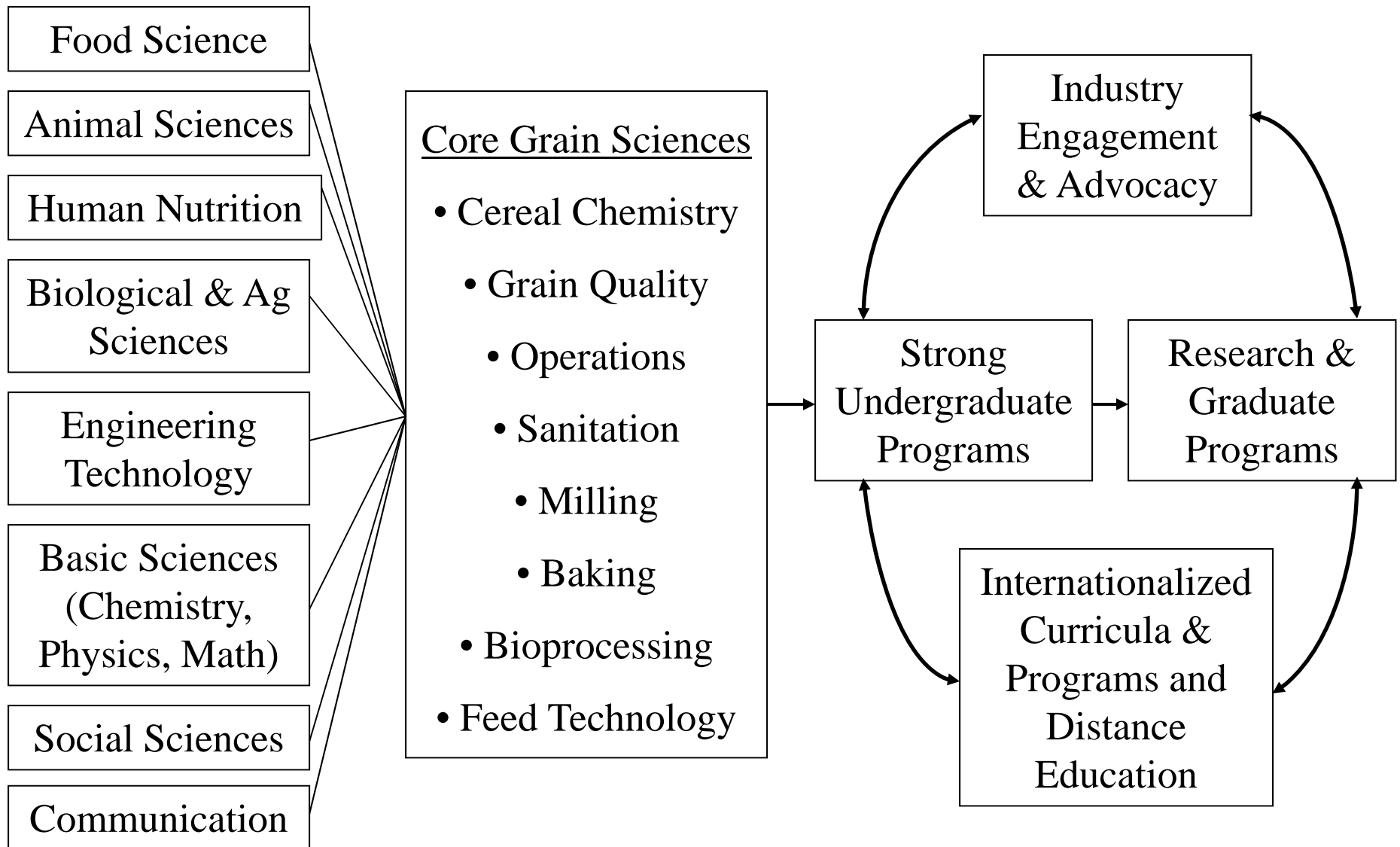
- **Partnership** btw K-State GSI and the Grain Industry
  - realize recruitment and retention of future employees starts by helping to fill the MSM, BSM and FSM pipelines at K-State
- Intentional and systematic recruitment plan
  - effective recruiting strategies; *“Every one recruit one!”*
  - Brains for Grains Recruitment and Scholarship Program
- Scholarship support
  - need to continue to grow scholarship pool
- Employment opportunities
  - Need internship opportunities and full-time job offers

→ More Out-of-State Recruiting Events...



May 17, 2010 – Mill Museum, Minneapolis, Minnesota  
Fall 2010 – Chicago Area Agricultural High School  
Fall 2010 – Cereal City, Battle Creek, Michigan

A Model of a successful interdisciplinary program in conjunction with international perspective, distance education and strong industry engagement & advocacy



# First GSI Study Abroad Course – China 2009





# Study Abroad: Swiss Milling School



Mary Gleason  
SMS'09; MSM'09



Megan Holton  
SMS'10; MSM'10



**Other Study Abroad Students: Kehley Pfrang (Austria); Caitlin Powell (Australia); Austin Bosse (Ireland); Ryan Baker & Ethan Miller (Czech Republic)**

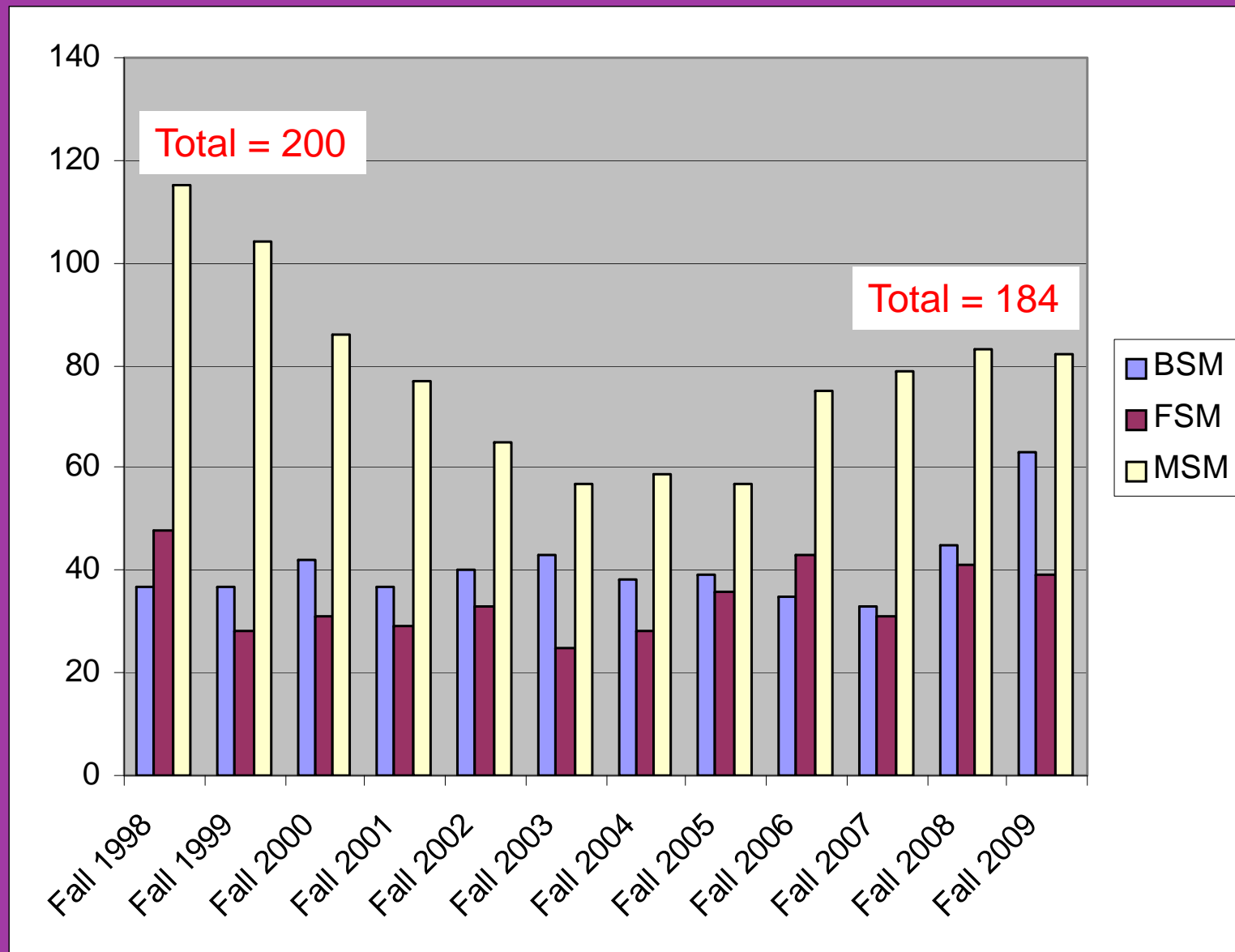
# Student Competitions: Next BIG Thing



2009 – 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> place in product category  
2010 – 2<sup>nd</sup> place in product category

# Grain Science Undergraduate Student Enrollment

## Fall 1998-2009 (Fall'09: 41%F vs 59%M)



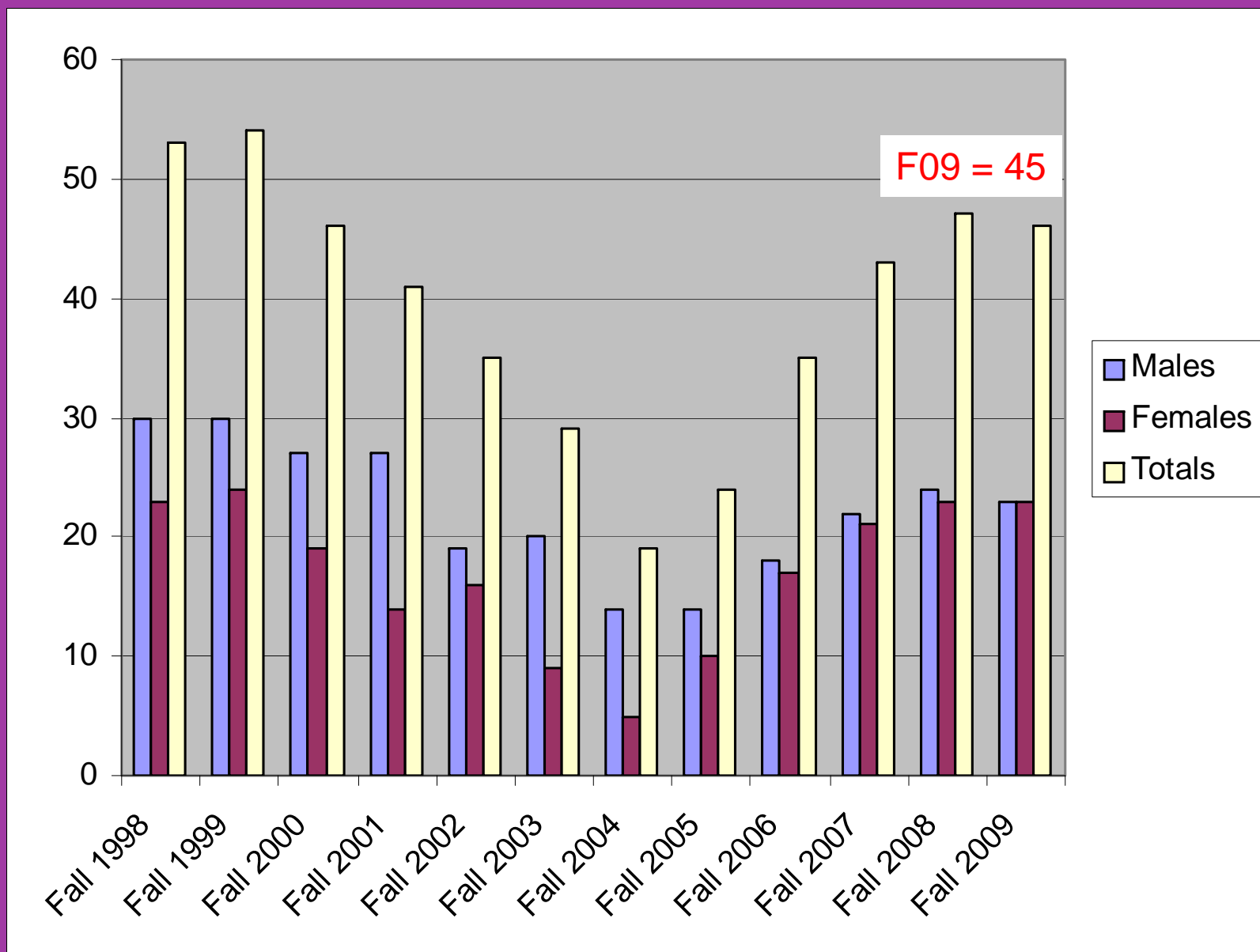




*Some of our Outstanding Graduate Students*

## Grain Science Graduate Student Enrollment - Fall 1998-2009

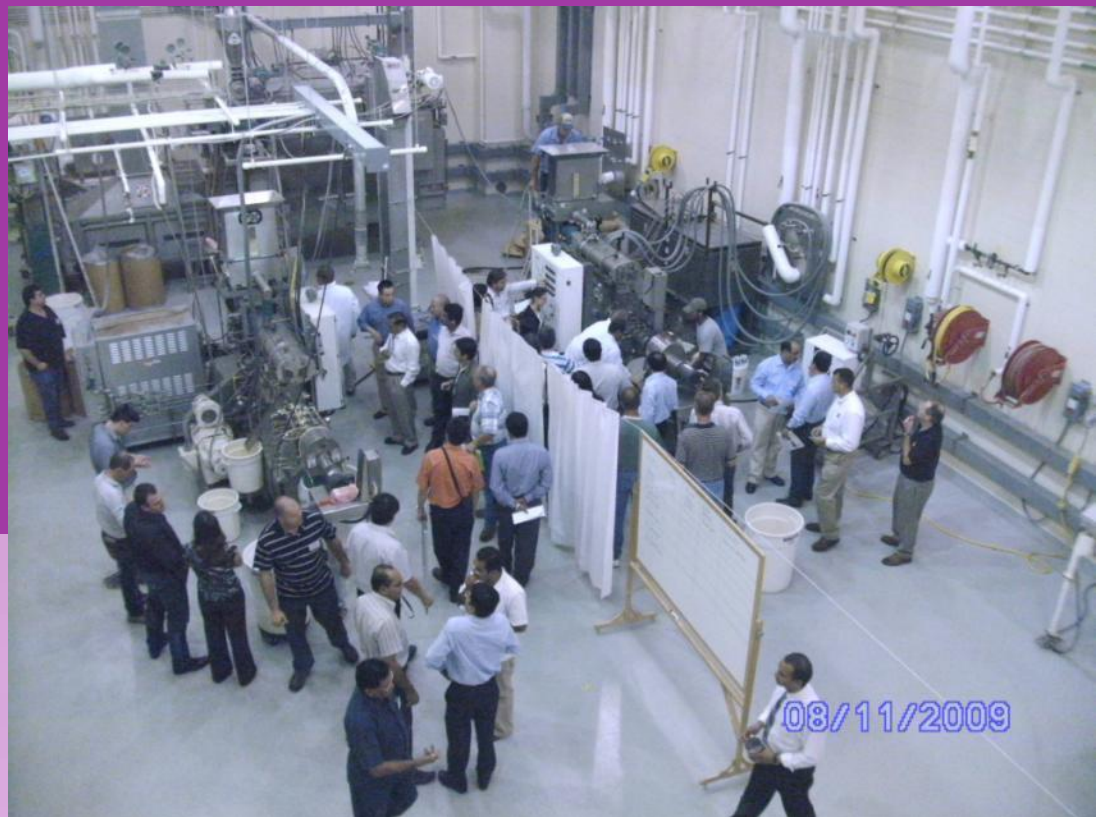
(F'09: 50%F vs 50%M)



# 2009 IGP Accomplishments

- 25 courses conducted at IGP Conf Center
  - 486 course participants
  - from more than 51 countries

**2009 Extrusion Short  
Course Participants in  
the KSU Extrusion  
Pilot Plant**



# GEAPS-KSU Distance Education Program - Participants

- Participants = 600 from 17 countries
- Individuals = 451
- Organizations = 224
- Companies with most enrolled:
  - CGB = 26
  - Cargill = 23
  - The Andersons = 22
  - Bunge / Bunge Milling = 20
- Most courses completed:
  - Jim Rossman, Kokomo Grain Co = 5



# Strategic Plan Themes (DRAFT)

1. Educate undergraduate and graduate students, and industry professionals.
2. **Conduct innovative basic and applied research, and transfer new technology and knowledge to end users.**
3. Offer high-quality outreach programs and services to meet domestic and international customer needs and stakeholder expectations.
4. Recruit, retain, reward and develop high quality faculty, and professional and classified staff.
5. Develop, maintain and utilize state-of-the-art facilities and equipment.
6. Broaden funding base and improve financial stewardship.





# GSI Patents Issued

- Since the KSU Research Foundation was started in 1942, the faculty in the GSI Department has accounted for about 24% of patents issued to KSURF
  - 51 out of 217 U.S. Patents
  - our faculty is ~1% of the KSU faculty
- 1<sup>st</sup> patent issued in 1954 to Miller & Johnson
- most patents issued to Dr. Paul Seib (20)
- IP licensing generates ~\$60,000/year for dept
  - most profitable patent generated \$400,000 to the dept



# Extramural Funding Support

	2003	2004	2005	2006	2007	2008	2009	2010	5-yr avg
HORT			\$325,671	\$387,539	\$633,383	\$1,046,426	\$1,082,763	\$514,216	\$732,865
AGEC	\$1,491,552	\$1,439,771	\$1,773,947	\$2,028,162	\$2,292,428	\$2,529,003	\$1,350,847	\$2,408,959	\$2,121,880
ASI	\$1,686,012	\$1,300,851	\$1,568,014	\$1,707,054	\$2,988,255	\$2,855,594	\$1,882,156	\$1,327,458	\$2,152,103
GSI	\$2,883,078	\$2,476,275	\$815,578	\$2,376,352	\$2,058,140	\$1,408,563	\$3,396,240	\$1,582,167	\$2,164,292
ENTM	\$1,295,809	\$1,670,454	\$1,507,496	\$2,784,940	\$2,848,309	\$2,075,416	\$1,560,774	\$1,898,520	\$2,233,592
AGRY	\$2,554,102	\$3,150,195	\$3,069,983	\$3,732,199	\$7,031,838	\$3,402,577	\$4,892,905	\$6,779,713	\$5,167,846
PP	\$3,363,112	\$5,322,627	\$4,105,332	\$4,214,156	\$5,343,061	\$3,714,770	\$7,607,972	\$6,754,886	\$5,526,969
COA totals	\$19,626,161	\$23,848,651	\$15,413,931	\$20,599,579	\$25,515,848	\$19,324,431	\$24,476,049	\$34,905,715	\$24,964,324



# Areas of Expertise



# Grain & Feed Operations & Processing

Dr. Keith Behnke

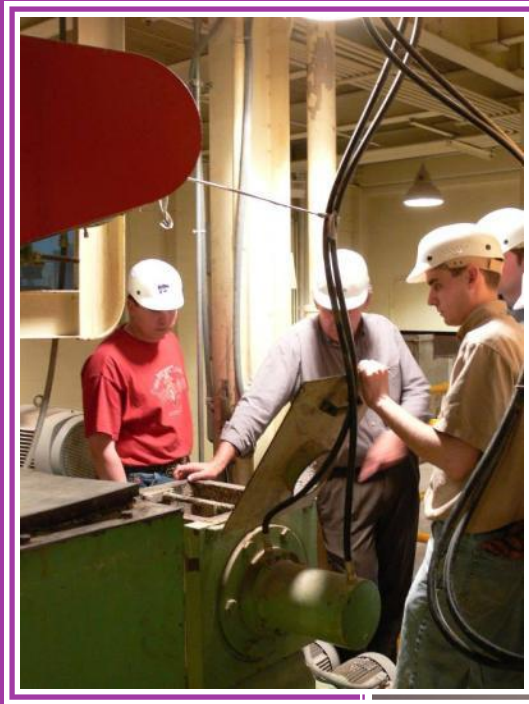
Dr. Leland McKinney

Prof. Fred Fairchild

Dr. Sajid Alavi

Dr. Subramanyam Bhadriraju

Dr. Dirk Maier



Feed Manufacturing, Ration Formulation, Extrusion, Petfoods, Aquafeeds, Process Efficiency, Grinding, Mixing, Biorefinery Operation, Identification, Quality, Preservation, Stored Product Protection, Segregation, Marketing, Rapid Analysis, Safety & BioSecurity

# Milling & Extraction



**Dr. Jeff Gwartz**

**Dr. Hulya Dogan**

**Dr. Ekramul Haque**

**Prof. Chris Miller**

**Prof. Huseyin Dogan**



**Milling, Component Extraction,  
Purification, Characterization, Dry-  
fractionation**



# Cereal & Bakery Sciences

Dr. Jon Faubion

Dr. Rebecca Miller

Prof. Dave Krishock

Dr. Yong-Cheng Shi

Dr. David Wetzel



Protein Chemistry, Starch Chemistry, Characterization, Measurement Technologies, Ingredients, Product Development, Formulation, Ingredients, Flour and Dough Quality, Process Improvement, Quality and Prototype Testing



Kansas State University  
GRAIN SCIENCE & INDUSTRY

# Carbohydrate Polymers

*Technology and Product Innovation*

# Biobased Products & Bioenergy

Dr. X. Susan Sun

Dr. Sajid Alavi

Dr. Ron Madl

Dr. Praveen Vadlani



Nonfood Products, Biomaterials,  
Biopolymers, Enzymes, Fermentation,  
Extrusion, BioEthanol, Formulation &  
Prototype Development



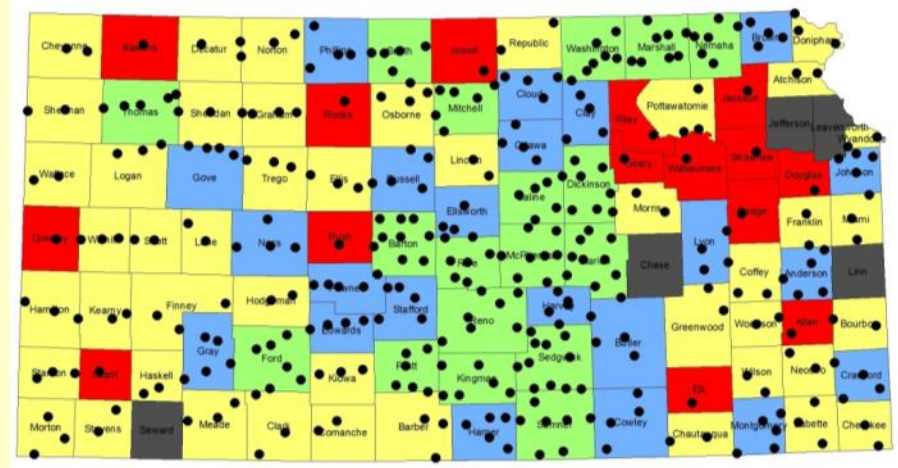
# Strategic Plan Themes (DRAFT)

1. Educate undergraduate and graduate students, and industry professionals.
2. Conduct innovative basic and applied research, and transfer new technology and knowledge to end users.
3. Offer high-quality outreach programs and services to meet domestic and international customer needs and stakeholder expectations.
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6. Broaden funding base and improve financial stewardship.



# 2009 Wheat Quality Survey Description

- Approximately 120 wheat samples collected from across Kansas
- Elevator managers collect a representative wheat sample of their area
- The samples are evaluated for end-use quality
- Harvest information is made available to domestic and international wheat buyers to promote Kansas wheat



Kansas Grain Elevators



# AFIA-KSU Feed Manufacturing Short Courses



## Principles of Feed Manufacturing Short Course June 10-13, 2008

Presented by Kansas State University, the American Feed Industry Association and the National Grain and Feed Association

### Background

The Department of Grain Science and Industry at Kansas State University has held Feed Manufacturing Short Courses since 1976. These courses are taught by a unique blend of individuals from Kansas State University and within the feed industry and provide in-depth training on all aspects associated with feed manufacturing.

### Who Should Attend

This course provides participants with a comprehensive understanding of feed manufacturing. It targets individuals relatively new to the feed industry and/or associated with an allied industry.

### Location and Registration Information

The course will be held in Manhattan, Kansas, at the Department of Grain Science and Industry at KSU. Travel information will be provided upon registration.

The registration fee for this course is \$950. This includes a copy of *Feed Manufacturing Technology V*, short course handout materials, all breakfasts, lunches, breaks and one dinner.

For registration information, contact:

Leland McKinney, Program Coordinator  
Dept. of Grain Science & Industry  
Kansas State University  
201 Shellenberger Hall  
Manhattan KS 66506-2201  
Phone: 785-532-4080  
E-mail: [lelandm@ksu.edu](mailto:lelandm@ksu.edu)

### Hotel Accommodations

Room block available until May 11, 2008, at:  
Holiday Inn At The Campus  
1641 Anderson Avenue  
Manhattan, KS 66502  
Phone: 785-539-7531  
Fax: 785-539-3909  
[www.holidayinn.com/universities](http://www.holidayinn.com/universities)

Mention that you are attending the K-State Feed Manufacturing Short Course to receive a reduced rate.

### Additional Information

**JUNE 2nd IS THE LAST DAY TO REGISTER.** Class size is limited so register early. The course is subject to cancellation if there are less than 15 enrollments. Kansas State University is dedicated to making short courses accessible to all persons. To increase our ability to assist you in finding necessary services or if you have a dietary preference, please indicate this when registering.

### Schedule

June 10<sup>th</sup> - Starting at 5:00 pm

- Registration
- Dinner
- An Overview of the Feed Industry

June 11<sup>th</sup> - 7:30 am to 5:30 pm

- Review of Animal Nutrition
- Feed Processing Flow
- Equipment Types and Selection
- Feed Mill Design
- Receiving & Quality Control
- Sanitation & Pest Management
- Work Place Safety

June 12<sup>th</sup> - 7:30 am to 5:30 pm

- Particle Size Reduction
- Weighing & Proportioning
- Mixers & Mixer Performance
- Preventative Maintenance

June 13<sup>th</sup> - 7:30 am to 11:30 am

- Principles of Steam Generation and Conditioning
- Fundamentals of Pelleting
- Pellet Cooling and Post-Pellet Liquid Application



## ADVANCED FEED MILL MANAGEMENT April 8-11, 2008 Kansas State University Feed Manufacturing Short Course

Presented in cooperation with the American Feed Industry Association, the National Grain and Feed Association, and the International Grains Program

### Background

The Department of Grain Science and Industry at Kansas State University has held Feed Manufacturing Short Courses since 1976. These courses are taught by a unique blend of individuals from Kansas State University and within the feed industry and provide in-depth training on all aspects associated with feed manufacturing.

### Who Should Attend

This course is designed for feed mill supervisors, managers and individuals from allied industries who wish to sharpen their management skills.

### Location and Registration Information

The course will be held in Kansas City, Missouri, near the Kansas City International Airport (MCI). The registration fee for this course is \$750. This includes short course handout materials, all lunches, break refreshments, and one dinner. *Feed Manufacturing Technology V* will be available for purchase at a reduced rate.

For registration information, contact:

Anita McDiffett  
Dept. of Grain Science & Industry  
Kansas State University  
201 Shellenberger Hall  
Manhattan KS 66506-2201  
Phone: 785-532-4080  
E-mail: [anitam@ksu.edu](mailto:anitam@ksu.edu)

### Hotel Accommodations and Short Course Location

Room block reserved until March 3, 2008, at:  
Fairfield Inn by Marriott Kansas City Airport  
11820 NW Plaza Circle  
Kansas City, Missouri 64153  
Phone: 816-464-2424  
Fax: 816-464-2361

Mention that you are with the KSU Feed Mill Management Short Course to receive a reduced room rate.

### Additional Information

Class size is limited so register early. The course is subject to cancellation if there are less than 15 enrollments. Kansas State University is dedicated to making short courses accessible to all persons. To increase our ability to assist you in finding necessary services or if you have a dietary preference, please indicate this when registering.

### Schedule

April 8<sup>th</sup> - Starting at 5:00 pm

- Registration
- Dinner
- Being an Effective Leader
- Overview of the Feed Industry

April 9<sup>th</sup> - 8:00 am to 5:30 pm

- A Manager's Role in Feed Mill Operations
- Regulations Governing the Feed Industry (FDA, OSHA, & EPA)
- Ingredient Purchasing, Logistics and Inventory Control
- Managing Energy Costs
- Working With Your Nutritionist
- Maintenance Management

April 10<sup>th</sup> - 8:00 am to 5:30 pm

- Quality Control, Product Liabilities and Risk Management
- Equipment and Parts Purchasing
- Hiring Practices
- Motivating and Training Employees
- Sales and Marketing
- Customer Relations
- Safe Food/Feed Feed Program

April 11<sup>th</sup> - 8:00 am to 12:00 pm

- Requirements of ISO
- Employing HACCP in the Feed Mill
- Certificate Presentation

## AFIA-KSU Feed Manufacturing Distance Education Program



## Advanced Pelleting Concepts July 10-13, 2007

Presented by Kansas State University, the American Feed Industry Association and the National Grain and Feed Association

### Background

The Department of Grain Science and Industry at Kansas State University has held Feed Manufacturing Short Courses since 1976. These courses are taught by a unique blend of individuals from Kansas State University and within the feed industry and provide in-depth training on all aspects associated with feed manufacturing.

### Who Should Attend

This course provides an in-depth understanding of all aspects of the pelleting process. It is designed for pellet mill operators and feed mill supervisors and managers.

### Location and Registration Information

The course will be held in Manhattan, Kansas, at the Department of Grain Science and Industry at KSU. Travel information will be provided upon registration.

The registration fee for this course is \$700. This includes a copy of short course handout materials, all breakfasts, lunches, breaks and one dinner.

For registration information, contact:

Leland McKinney, Program Coordinator  
Dept. of Grain Science & Industry  
Kansas State University  
201 Shellenberger Hall  
Manhattan KS 66506-2201  
Phone: 785-532-4080  
E-mail: [lelandm@ksu.edu](mailto:lelandm@ksu.edu)

### Hotel Accommodations

Room block available until June 22, 2007, at:  
Holiday Inn At The Campus  
1641 Anderson Avenue  
Manhattan, KS 66502  
Phone: 785-539-7531  
Fax: 785-539-3909  
[www.holidayinn.com/universities](http://www.holidayinn.com/universities)

Mention that you are attending the K-State Feed Manufacturing Short Course to receive a reduced rate.

### Additional Information

Class size is limited so register early. The course is subject to cancellation if there are less than 15 enrollments. Kansas State University is dedicated to making short courses accessible to all persons. To increase our ability to assist you in finding necessary services or if you have a dietary preference, please indicate this when registering.

### Schedule

July 10<sup>th</sup> - Starting at 5:00 pm

- Registration
- Dinner
- An Overview of the Feed Industry

July 11<sup>th</sup> - 8:00 am to 5:30 pm

- Why Pellet Feed
- The Pelleting Process: Past, Present, and Future
- Pelleting System Design & Equipment
- Pellet Roll and Die Design
- Pellet Mill Maintenance
- Factors Influencing Pelleting
- Pellet Quality and Pellet Quality
- Pelleting Characteristics of Feed Ingredients

July 12<sup>th</sup> - 8:00 am to 5:30 pm

- Mash Conditioning
- Pellet Cooling
- Boiler Operation
- Boiler Water Treatment
- Steam and Steam Systems

July 13<sup>th</sup> - 8:00 am to 11:30 am

- Automation of Pelleting Lines
- Crumbling and Post Pellet Liquid Application
- The Cost of Pelleting



## FEED MILL MAINTENANCE June 2-5, 2009 Kansas State University Feed Manufacturing Short Course

Presented in cooperation with the American Feed Industry Association, the National Grain and Feed Association, and the International Grains Program

### Background

The Department of Grain Science and Industry at Kansas State University, in partnership with industry associations, has held Feed Manufacturing Short Courses since 1976. These courses are taught by a unique blend of individuals from Kansas State University and within the feed and allied industries and provide in-depth training on all aspects associated with feed manufacturing.

### Who Should Attend

This course is designed for feed mill maintenance managers, shift supervisors, and feed mill managers.

### Location and Registration Information

The course will be held at Kansas State University in Manhattan, Kansas. The registration fee for this course is \$800. This includes short course handout materials, all lunches, refreshments, and one dinner. *Feed Manufacturing Technology V* will be available for purchase at a reduced rate.

For registration information, contact:

Anita McDiffett  
Dept. of Grain Science & Industry  
Kansas State University  
201 Shellenberger Hall  
Manhattan KS 66506-2201  
Phone: 785-532-4080  
E-mail: [anitam@ksu.edu](mailto:anitam@ksu.edu)

### Hotel Accommodations and Short Course Location

Room block reserved until May 2, 2009, at:  
Holiday Inn At The Campus  
1641 Anderson Avenue  
Manhattan KS 66502  
Phone: 785-539-7531  
Fax: 785-539-3909

Mention that you are with the KSU Feed Mill Maintenance Short Course to receive a reduced room rate.

### Additional Information

Class size is limited so register early. The course is subject to cancellation if there are less than 15 enrollments. Kansas State University is dedicated to making short courses accessible to all persons. To increase our ability to assist you in finding necessary services or if you have a dietary preference, please indicate this when registering.

### Tentative Schedule

June 2

- Registration
- Dinner

June 3

- The Importance of Having an Effective Maintenance Program
- Establishing a Preventative Maintenance Program
- Maintenance Safety
- Parts Purchasing and Inventory Management
- Magnets - Design, Testing, and Installation
- Motor Bearing Maintenance

June 4

- Electrical Maintenance
- Draft Filter Maintenance
- Conveyor Maintenance
- Liquid Pump Maintenance
- Maintenance of Compressed Air Systems
- Maintenance of Hammer Mills and Roller Mills
- Batching Systems and Mixer Maintenance

June 5

- Roller and Steam System Maintenance
- Pellet Mill Maintenance
- Pellet Cooler Maintenance

# International Center for Grain Industry Operations @ K-State

- **Purpose:** The International Center for Grain Industry Operations will serve as the primary partner to the international grain industry in providing a current, complementary and comprehensive knowledge resource for the world of grain industry operations and processing.
- **Partners:** GEAPS, Grain Handling & Processing Companies, Iowa State University, Purdue University, USDA-ARS CGAHR, AFIA, NAMA,...



# Strategic Plan Themes (DRAFT)

1. Educate undergraduate and graduate students, and industry professionals.
2. Conduct innovative basic and applied research, and transfer new technology and knowledge to end users.
3. Offer high-quality outreach programs and services to meet domestic and international customer needs and stakeholder expectations.
4. **Recruit, retain, reward and develop high quality faculty, and professional and classified staff.**
5. Develop, maintain and utilize state-of-the-art facilities and equipment.
6. Broaden funding base and improve financial stewardship.



# Faculty Retirements (June 2010)



Dr. Ekramul Haque  
Professor of  
Milling Science & Management



Dr. Keith Behnke  
Professor of  
Feed Science & Management



# Faculty Positions

- 3 open faculty positions were cut to meet 10% FY10 budget cut
    - all three in Cereal Science
  - 2 eligible for retirement
  - 2 retirements for end of FY10
    - Milling/Grain Science (Haque) → Search Committee established
    - Feed Science (Behnke) → will be replaced by Dr. Leland McKinney
    - Grain/Feed Extension & Research (McKinney) → Exploring targeted hire
  - 1 Research Assistant Professor added for FY10 (R. Miller)
  - 1 Instructor added to support UG teaching (Hus. Dogan)
  - 1 Instructor position re-filled
    - Buhler Instructor of Milling (C. Miller)
      - supports MSM teaching program (70%) and IGP (30%)
  - 1 more Instructor needed to fully support MSM program needs
- Strategic hiring of 5-7 new Faculty in next 1-5 yrs





# Strategic Plan Themes (DRAFT)

1. Educate undergraduate and graduate students, and industry professionals.
2. Conduct innovative basic and applied research, and transfer new technology and knowledge to end users.
3. Offer high-quality outreach programs and services to meet domestic and international customer needs and stakeholder expectations.
4. Recruit, retain, reward and develop high quality faculty, and professional and classified staff.
5. **Develop, maintain and utilize state-of-the-art facilities and equipment.**
6. Broaden funding base and improve financial stewardship.





# GSI North Complex on Kimball Ave

(View from top of East Stadium)





# O.H. Kruse Feed Mill & Biorefinery Teaching and Research Center

- estimated \$12.5 million project
  - \$2 million lead gift by Mr. Ron Kruse
  - \$0.5 million cash from grain, feed and biofuels industry so far
    - plus >\$2.5-3 million in equipment commitments
  - Seeking \$5 million in NBAF relocation funds from State of Kansas
  - Seeking additional \$2.5-3 million cash and equipment from domestic and international grain, feed, biofuels and animal nutrition industry and allied trades



## Project Timeline:

Summer 2010 – complete fund raising

Oct 2, 2010 – break ground as part of Centennial Celebration



## Envisioned GSI North Complex



# Strategic Plan Themes (DRAFT)

1. Educate undergraduate and graduate students, and industry professionals.
2. Conduct innovative basic and applied research, and transfer new technology and knowledge to end users.
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5. Develop, maintain and utilize state-of-the-art facilities and equipment.
6. **Broaden funding base and improve financial stewardship.**



# Centennial Celebration Initiative

- Increase scholarship support for our students
  - Goal: \$50,000
    - \$20,000 MSM; \$20,000 BSM; \$10,000 FSM
- Improve learning environment for our students
  - Goal: \$500,000
    - Renovate Shellenberger class rooms (301, 311, WA09)
    - Establish a Student Collaborative Work and Study Area (FT202)
- Establish Two (2) Endowed Faculty Chairs
  - Goal: \$5,000,000
    - National funds to support unique programs with national impact
    - National funds to supply future talent for the grain industry
    - NEW: Jim & Carol Brown Endowed Professorship in FSM (\$1 million)



**Centennial Celebration Weekend –  
October 1-2, 2010**

# American Society of Baking

Ben  
Reusser

Kelsey  
Fairfield

Jill  
Kovacic

Carter  
Wands



# 2009-2010 GSI Undergraduate Student Scholarships

<u>Program</u>	<u>#</u>	<u>Amount</u>	<u>Average</u>
BSM	45	\$87,825	\$1,951
MSM	38	\$57,505	\$1,513
FSM	38	\$30,525	\$ 803
<b>TOTAL</b>	<b>121</b>	<b>\$175,555</b>	<b>\$1,450</b>





# Faculty Recognition & Sustainability



Dr. Jon Faubion  
Charles D. Singleton  
Professor of Grain  
Science & Industry



Dr. Jeff Gwartz  
G.M. Ross Associate  
Professor of Milling  
Science &  
Management



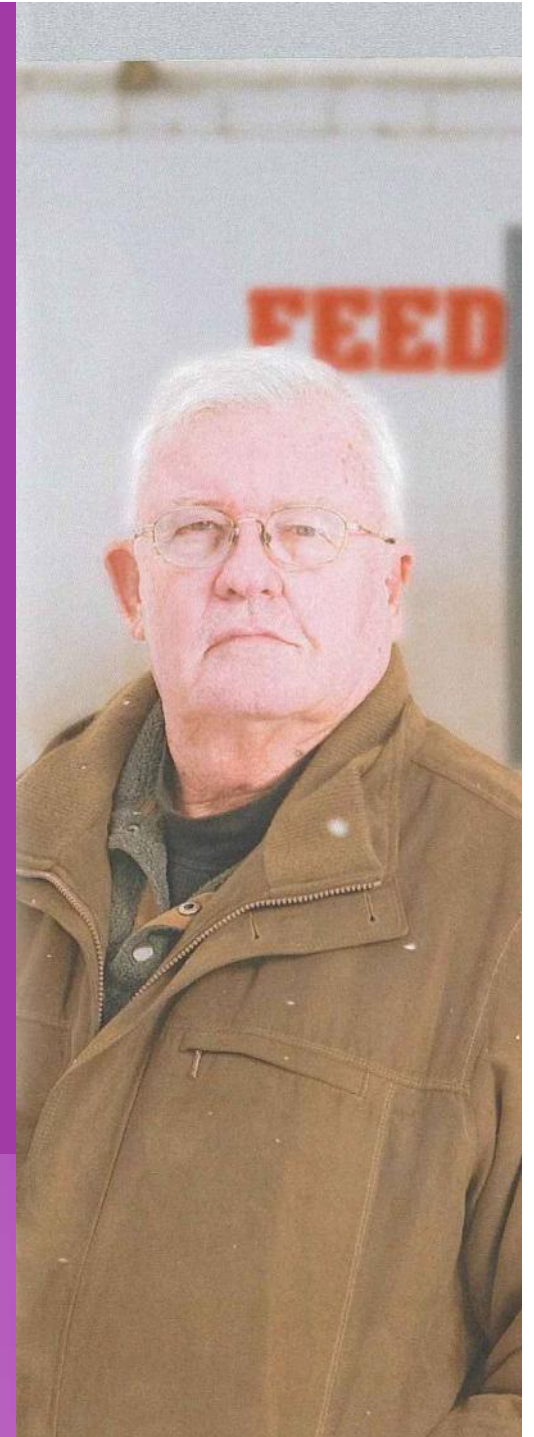
Prof. Dave Krishock  
Bakers National  
Education Foundation  
Instructor of Baking  
Science & Management

Prof. Chris Miller  
Bühler Instructor of Milling  
Science & Management



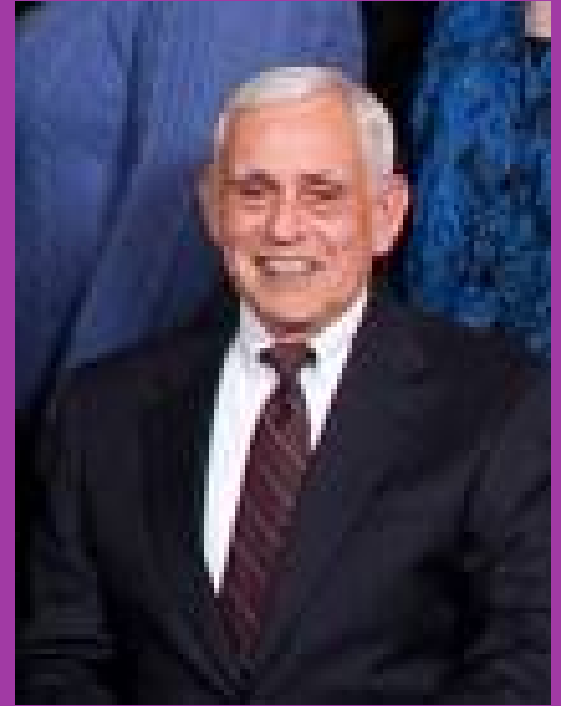


# Jim & Carol Brown Endowed Professorship in Feed Science & Management



Jim Brown  
\$1 million Deferred Gift Donor  
Clay Center, Kansas

# Don Wilbur Endowed Professorship in Stored Product Protection



**\$2.5 million Endowed Gift Target**  
**Joint with Dept of Entomology**

# NAMA Endowed Instructor of Milling Science & Management



**\$2.5 million Endowed Gift Target**

# Budget Information



# Disciplined Action...

- Culture of Discipline
  - Being good stewards of our resources
    - Being effective and efficient
  - Committed to excellence in everything we do
  - Approaching challenges with a can-do attitude
  - Taking advantage of opportunities
  - Thinking **marathon** rather than sprint
  - Consistently delivering what we promise and when
- ➔ Operating with academic freedom, collegiality, creative thinking and an entrepreneurial spirit





# Disciplined Action...

- The Flywheel
    - No single defining action
    - No one killer innovation
    - No miracle moment
    - No one single person
- ➔ Relentlessly pushing a giant, heavy flywheel in one direction, turn upon turn, **building momentum** until a point of breakthrough, and beyond



# Strategic Plan Themes (Top Goals)

1. **Educate undergraduate and graduate students, and industry professionals**
  - increase quantity & quality of UG & graduate students
  - increase out-of-state UG students (Brains for Grains; dist ed courses)
  - strategic dist ed partnerships with industry
2. **Conduct innovative basic and applied research, and transfer new technology and knowledge to end users**
  - increase grants, contracts & IP royalty income
3. **Offer high-quality outreach programs and services to meet domestic and international customer needs and stakeholder expectations**
  - build on / expand IGP success

# Strategic Plan Themes (Top Goals)

4. Recruit, retain, reward and develop high quality faculty, and professional and classified staff
  - fill 2 open faculty positions ASAP
  - pursue GEAPS Endowed Chair opportunity
  - pursue NAMA Milling Instructor opportunity
5. Develop, maintain and utilize state-of-the-art facilities and equipment
  - get new feed mill/biorefinery built
  - pursue North Complex completion
6. Broaden funding base and improve financial stewardship
  - encourage and support entrepreneurial efforts

**“Greatness is largely a matter of  
conscious choice, and discipline!”**  
- Jim Collins



“Nothing in the world can take the place of **persistence**.  
**Talent** will not; nothing is more common than  
unsuccessful men with talent.  
**Genius** will not; unrewarded genius is almost a proverb.  
**Education** will not; the world is full of educated derelics.  
**Persistence** and **determination** alone are omnipotent.  
The slogan “**Press On**” has solved and will always solve  
the problems of the human race!”  
- President Calvin Coolidge





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***“Leaders & Knowledge for the Global Grain Industry”***