At the Start of our Second Century… where are we headed?

GSI State of the Department Seminar
Manhattan, Kansas
April 12, 2011

Dr. Dirk E. Maier
Professor and Head
CONGRATULATIONS!!!

THANK YOU!!!
Do we have a clear **vision** of how our future will be different from our past? Do we have an effective **strategy** to make that future a reality? Do we have a real sense of **urgency** to grab our opportunities?
K-State 2025 Initiative

K-State will be recognized nationally as a Top 50 public research university.

Where do we fit?
How do we position ourselves?
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.”

“K-State Grain Science & Industry will be recognized internationally as the global leader.”
“____ is the enemy of ____!”
- Jim Collins
“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** (who)
  – Disciplined **thought** (what)
  – Disciplined **action** (how)
New K-State Administration

Dr. Kirk Schulz
President

Mr. Bruce Schubert
Vice President for Administration and Finance

Dr. April Mason
Provost & Senior Vice President

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
TEAMWORK
Newest Team Members

Quenten Allen  
Milling Operations Manager

Michael Moore  
BSM Lab Instructor & Bakery Operations Manager

Royal Denning  
Adjunct Instructor of Milling Science & Management

Roberta Hodges  
Administrative Assistant to the Department Head & IGP Director
Long-serving Team Members

Jan Taggart
Accountant II
Business Office

Terri Mangiaracino
Purchasing Administrator & Buildings Deputy

Anita McDifffet
Senior Administrative Assistant - Extension

Suzan Adams
IT Coordinator

Susan Kelly
Senior Administrative Specialist - BIVAP

Bev McGee
Administrative Specialist & Graduate Student Services Coordinator

Cathy McGlothlin
IGP Coordinator & Office Manager
ONE Faculty Team!!!
2011 Students, Staff & Faculty Recognitions

• *Pls come and join us for the…*

  ➔ Scholarship and Awards Banquet April 20, 2011 at 6:30p at IGP Conference Center

2011 Alumni & Friends Recognitions

• *Pls come and join us for the…*

  ➔ Outstanding Alumni & Service Awards Luncheon April 20, 2011 at 6:30p at IGP Conference Center
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 our teaching mission
  – Failing and antiquated facilities (incl labs, classrooms)

⇒ Identifying and acknowledging our weaknesses and threats to our future success
Budget Information
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

Do we have a clear **vision** of how our future will be different from our past?
Do we have an effective **strategy** to make that future a reality?
Do we have a real sense of **urgency** to grab our 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 that impact the global grain & plant-based food, feed, fiber, fuel and bio-products supply chains.”
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.
<table>
<thead>
<tr>
<th><strong>K-State 2025 Visionary Plan Themes</strong></th>
<th><strong>DRAFT GSI Strategic Plan Themes</strong></th>
</tr>
</thead>
</table>
| Scholarship, Research, Creative Activities | - Conduct innovative basic and applied research, and transfer new technology and knowledge to end users.  
- Broaden funding base and improve financial stewardship. |
| Undergraduate Educational Experience | Educate undergraduate and graduate students, and industry professionals. |
| Graduate Scholarly Experience | Educate undergraduate and graduate students, and industry professionals. |
| Faculty & Staff | Recruit, retain, reward and develop high quality faculty, and professional and classified staff. |
| Facilities & Infrastructure | Develop, maintain and utilize state-of-the-art facilities and equipment. |
| Engagement & Extension | - Educate undergraduate and graduate students, and industry professionals.  
- Offer high-quality outreach programs and services to meet domestic and international customer needs and stakeholder expectations. |
| Athletics | N/A |
Strategic Plan Themes (DRAFT)

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“Preparing the Next Generation of Professionals for the Global Grain-based Food & Feed Industry”
Student Competitions: Next BIG Thing

2009 – 1st, 2nd, 3rd place in product category
2010 – 2nd place in product category
Students becoming Professionals…

ASB Chicago
March 2011

2011 Feed Industry Expo
Atlanta

Centennial Grain Science & Industry 1910~2010
Grain Science Undergraduate Student Enrollment
Fall 1998-2010  (Fall’10: 43%F vs 57%M)

Total = 200

Total = 206
New Student Enrollment - Fall 1997-2010

**Fall 2011 Estimate:**
- 23 (9) BSM
- 14 (1) MSM
- 15 (3) FSM
- 52 (13) Total
Some of our Outstanding 49 Graduate Students

MS 10d (2F, 8M, 2 URM) 9i (6F, 3M)
PhD 8d (3F, 5M, 1 URM) 22i (13F, 9M)
# Current Grain Science Distance Ed Courses

## Available
- GRSC 101 Introduction to Grain Science
- GRSC 602 Cereal Science

## In Development
- GRSC 310 Materials Handling
- GRSC 635 Baking Science I
- GRSC 655 Cereal Food Plant Design & Construction
- GRSC 661 Qualities of Feed & Food Ingredients
- GRSC 710 Fundamentals of Grain Storage
- GRSC 745 Fundamentals of BioProcessing

## Proposed
- GRSC 510 Feed Technology I
- GRSC 637 Baking Science II
- GRSC ??? Safety & Regulatory Issues

42 students have taken GRSC dist ed classes for college credit this academic year!
Strategic Plan Themes (DRAFT)

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# Extramural Funding Support

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

**GSI faculty & staff generated about $11 million in extramural support during the past 5 years!**

Information from Pre-Awards Services
### Peer Journal Manuscripts by GSI Faculty

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>5-yr Avg</th>
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<td>Asst Profs</td>
<td>2</td>
<td>8</td>
<td>12</td>
<td>6</td>
<td>9</td>
<td>7</td>
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<tr>
<td>Assoc Profs</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>9</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Full Profs</td>
<td>10</td>
<td>20</td>
<td>24</td>
<td>21</td>
<td>26</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>14</td>
<td>28</td>
<td>38</td>
<td>36</td>
<td>43</td>
<td>32</td>
</tr>
</tbody>
</table>

GSI faculty published **159** peer manuscripts in the past 5 years!
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
- 1st patent issued in 1954 to Miller & Johnson
- most patents issued to Dr. Paul Seib (20)
- IP licensing generates ~$65,000/year for dept
  - most profitable patent generated $400,000 to the dept

GSI faculty submit ~4 IP disclosures per year to KSURF!
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International Grains Program Accomplishments

- 25 courses in 2009
  - 478 course participants from 51 countries
- 27 courses in 2010
  - 477 course participants from 43 countries

2009 Extrusion Short Course Participants in the KSU Extrusion Pilot Plant
Distance Education Partnerships

• **GEAPS-KSU** Grain & Biorefinery Operations
  - 32 offerings of 12 different courses
  - Over 1000 participants from 21 different countries
  - 86% completion rate

• **AFIA-KSU** Feed Technology
  - 2 offerings of 1 course
  - 82 participants from 9 different countries
  - 92% completion rate
  - New course in *Ingredient Quality and Food Safety*

• **IAOM-KSU** Flour Milling
  - Correspondence course exam management
    - Manage online exams for first three units
  - 37 participants from 7 different countries
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Faculty Positions Status

• 3 open faculty positions were cut to meet 10% FY10 budget cut
  – all three in Cereal & Bakery Sciences
• 3 eligible for retirement
  – 1 phased retirement through Dec’12 (Madl)
    • Potential to gain a tenure-track position back in Cereal/Bakery Sciences
• 2 new faculty positions for FY11
  – Milling/Grain Science (Haque) ➔ Search Committee active (Round 2)
  – Feed Science (Behnke) ➔ replaced by Dr. Leland McKinney
  – Grain/Feed Extension & Research (McKinney) ➔ Search to start
• 1 Lab Instructor added to support BSM teaching (Michael Moore)
  – full-time person with extensive experience supporting BSM program growth incl teaching multiple lab sections and managing bakery facilities
• 1 Adjunct Instructor added to support MSM teaching (Royal Denning)
  – need full-time person with extensive industry experience to support MSM program growth incl teaching multiple lab sections (NAMA Instructor)

⇒ Strategic hiring of 5-7 new Faculty in next 1-5 yrs
Strategic Plan Themes (DRAFT)

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O.H. Kruse Feed Technology & Biorefinery
Teaching and Research Center

• estimated $13.5 million project
  – $2 million lead gift by Mr. Ron Kruse
  – $1 million cash from grain, feed and biofuels industry so far
    • plus >$2.5-3 million in equipment commitments
  – $1.5 from KBA Matching Grant
  – $5.2 million in NBAF relocation funds from Kansas State University
  – Seeking additional $3-3.5 million cash and equipment from domestic and international grain, feed, biofuels and animal nutrition industry and allied trades

Project Timeline:
Summer 2011 – complete fund raising
Fall 2011 – start construction
Spring 2013 – commissioning and dedication
Envisioned completion of new Grain Science Innovation Campus

Final Projects:
- Add Milling Science & Education Wing to Hal Ross Flour Mill
- Build Cereal & Bakery Sciences & Technology Building
Strategic Plan Themes (DRAFT)

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2010 Giving Summary

- Comprehensive Giving = $3,067,876
  - Outright gifts = $309,281
    - $60,905 Centennial celebration expenses, scholarships, classroom improvements
      - $15,000 Sosland Publishing Company Centennial Publication scholarship
  - Pledges = $1,358,595
    - Pledge payments = $1,045,380
      - $848,389 for feed mill project
      - $165,077 in scholarship funds
      - $100,000 Buhler Instructor
    - Outstanding pledges = $313,215
  - Deferred gifts = $1,400,000
    - $1 million Jim & Carol Brown Endowed Professorship in FSM

Centennial Celebration Initiative has so far generated over $1,500,000!
Salina food additive company invests in future of K-State milling science students

Tuesday, May 11, 2010

Contact: Shanna Williams, shannaw@found.ksu.edu

Research Products Company, Salina, Kan., has made a commitment of **$12,500** to the Department of Grain Science and Industry in the College of Agriculture at Kansas State University to establish the Research Products Company Scholarship.

The fund will be established over a five-year period, and $2,500 will be awarded annually in the form of scholarships for juniors or seniors enrolled in the Department of Grain Science and Industry, majoring in milling science and management.

Milling scholarship makes education at K-State affordable for out-of-state students

Thursday, May 6, 2010

Contact: Shanna Williams, shannaw@found.ksu.edu

The Mennel Milling Company, Fostoria, Ohio, has made a commitment of **$55,000** to the Department of Grain Science and Industry in the College of Agriculture at Kansas State University to establish The Mennel Milling Scholarship.

The scholarship will benefit full-time undergraduate students majoring in milling science and management with a focus on operations, who live outside the state of Kansas. Eligible students must be from a county adjacent to one of Mennel’s operating facilities in Illinois, Indiana, Michigan, Ohio or Virginia. The scholarship will pay the difference between out-of-state tuition and in-state tuition, and will also provide $1,000 in travel expenses.
### 2010-2011 GSI Undergraduate Student Scholarships

<table>
<thead>
<tr>
<th>Program</th>
<th>#</th>
<th>Amount</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSM</td>
<td>46</td>
<td>$94,815</td>
<td>$2,061</td>
</tr>
<tr>
<td>MSM</td>
<td>49</td>
<td>$69,750</td>
<td>$1,423</td>
</tr>
<tr>
<td>FSM</td>
<td>39</td>
<td>$30,000</td>
<td>$769</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>134</strong></td>
<td><strong>$194,565</strong></td>
<td><strong>$1,452</strong></td>
</tr>
</tbody>
</table>

65% of students received scholarships
Faculty Recognition & Sustainability

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

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

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

Prof. Chris Miller
Bühler Instructor of Milling Science & Management

Fall 2011: NAMA Instructor of Milling Science & Management
“...the potential benefit for the industry and its member companies from what the department offers is so great that what might be regarded as philanthropy actually involves making one of the best investments possible in the future of the entire industry.”

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

Teamwork!!!
“Greatness is largely a matter of conscious _____, and ___________!"  
- Jim Collins
“Greatness is largely a matter of conscious choice, and discipline!”
- Jim Collins
Do we have a clear **vision** of how our future will be different from our past?
Do we have an effective **strategy** to make that future a reality?
Do we have a real sense of **urgency** to grab our opportunities?

---

Our Iceberg is Melting
Sense of Urgency

“A real sense of urgency is a distinctive attitude and gut-level feeling that lead people to grab opportunities and avoid hazards, to make something important happen today, and constantly shed low-priority activities to move faster and smarter, now.”

- John P. Kotter
Upcoming Events

• Open House – April 16, 2011
  – Great team effort, lots of opportunities to volunteer

• Spring Awards Banquet – April 20, 2011
  – Recognize our awardees and scholarship recipients & donors
  – Recognize Outstanding Alumni & Supporters

• Kansas Secretary of Agriculture Dale Rodman Speech – April 20, 2011
  – we are hosting this college/campus-wide event

• Dept Advisory Board meeting – April 20-21, 2011
  – Focus on new faculty positions, stand-alone minors, budget situation, sustainability

• Initiate second Departmental Climate Survey
  – via K-State Office of Planning and Analysis in late Spring’11

Questions? Comments?