

Department of Agronomy Extension Group Overview



Purdue Agronomy

Extension Program Mission

...develop, integrate and extend agronomic information and technology that is timely and relevant to the agricultural and environmental concerns of the residents of Indiana, the nation, and the international community.

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Extension Program Focus

- **Serve as the definitive source of nonbiased, science-based information**
- **Maintain and expand proactive and relevant applied research programs**

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Extension Faculty and A/P Changes

- **Current Extension Faculty FTEs: 7.68**
 - Our Extension faculty FTE has remained stable since 2002
 - We added one additional faculty member with a primary Extension appointment since the last CSREES review
 - Assumes 0.65 FTE Soybean Extension Specialist hire and a replacement for Brad Lee who recently took a position at the University of Kentucky
- **Current A/P FTEs: 5.25**
 - Our Extension A/P FTE has decreased significantly since 2002 (down 11.60)
 - Loss of 12 soil and water conservation program staff

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Extension Faculty Research Productivity

8 Faculty with > 40% Extension FTE

- **Mentored:**
 - 38 of 101 students that have earned an M.S. or Ph.D. since last review
- **Published:**
 - 12 book chapters
 - 112 refereed journal articles
- **Secured:**
 - More than \$7.5 million in grant support

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Extension Faculty Teaching Productivity

8 Faculty with > 40% Extension FTE

- **Primary Courses Taught:**
 - AGRY 365, Soil Fertility
 - AGRY 515, Plant Mineral Nutrition
 - AGRY 598C, Cropping Systems Research
 - AGRY 597, Communicating with the Public
 - AGRY 696, Graduate Seminar
- **Dozens of Guest Lectures in AGRY, ABE & ANSC**

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Extension Program Areas

- **Agricultural meteorology and climatology**
- **Crop and soil management systems**
- **Turf management systems**
- **Water and environmental quality**

Agricultural Meteorology and Climatology



Agricultural Meteorology and Climatology



Indiana's Online Climate Database

- **Daily weather from 150 NWS cooperators**
 - **Earliest station dates to 1901**
- **Hourly weather from 20 airports**
 - **Earliest station dates to 1940s**
- **Automated Purdue stations at 7 PACs**
 - **Established in 1999**
- **About 100 database queries per day**

Agricultural Meteorology and Climatology

Community Involvement

- **CoCoRaHS – Community collaborative rain, hail and snow network**
 - **Indiana began participating in this national program in 2006**
 - **Currently more than 1000 volunteers across the state**
 - **Faculty, staff and NWS personnel lead an ongoing training program for volunteers**
 - **Daily reports available at www.cocorahs.org**

Crop and Soil Management Systems



Crop and Soil Management Systems

Websites

- **KingCorn.org**
 - **"Encyclopedia" of corn production**
 - **450,000 page views per year**
- **Chat'n Chew Café**
 - **Timely agronomic production information**
 - **120,000 page views per year**

Crop and Soil Management Systems

Workshops and Conferences

- **Diagnostic Training Center**
 - 800 customers per year
 - 40 million acres managed
- **Indiana CCA Conference**
 - 500-650 customers per year
 - 5 million acres managed
- **Kentuckiana/Michiana**
 - 300 customers per year
 - 1 million acres managed

Crop and Soil Management Systems

Publications and Software

- 120 new/revised publications since 2002
- **Corn and Soybean Field Guide**
 - 50,000 copies sold per year
- **Forage Field Guide**
 - 10,000 copies sold (sold out)
- **Corn and Soybean Growth & Development CDs**
 - 8500 copies sold
- **Manure Management Planner**
 - Adopted by NRCS and promoted by EPA

Crop and Soil Management Systems

Crop Performance Program

- Advisory board established in 2005
- Small grains were dropped in 2006
- Increase from 6 to 9 sites in 2006
- Income grew from \$87K in 2004 to \$205K in 2008
- 44% growth in soybean and 7% growth in corn program since 2006
- 10,000 downloads of results in 2008

Turf Management Systems



Turf Management Systems

Websites

- <http://www.agry.purdue.edu/turf>
 - The Portal for all things turf at Purdue
 - Extension publications
 - Calendar of events for MRTF activities
 - Links to other turf programs
 - Annual research summaries
 - **Turf Tips**
 - 100-150 semi-weekly write-ups on current turf management issues

Turf Management Systems



Workshops and Conferences

- **Indiana Green Expo**
 - Indianapolis, 2000-3000 customers
- **Midwest Regional Turf Field Day**
 - West Lafayette, 600-800 customers
- **Basic Training: Turf Management**
 - Rotating locations, 150 customers
- **Midwest Turf and Ornamental Seminar**
 - West Lafayette, 70 customers

Turf Management Systems

Publications

- **47 Turf-related publications**
 - **Agronomy**
 - **Entomology**
 - **Botany and Plant Pathology**
- **Turf Management Field Guide**
 - **Currently being developed**

Water and Environmental Quality









Water and Environmental Quality

Workshops and Conferences



- **CNMP training**
 - **Conducted across 20 states for NRCS**
 - **New initiative for TSPs nationwide**
- **Soil and septic systems workshops**
 - **60 customers per year**
 - **Represent 1/3 of Indiana County Health Departments and Indiana State Department of Health regulators**




Water and Environmental Quality

Publications



- **Home and Environment Extension Bulletin Series (for homeowners)**
 - **215,000 downloads**
- **Rural Wastewater Extension Bulletin Series (for professionals)**
 - **More than 40,000 downloads**
- **Spatial Septic System Permit Database**
 - **Used by 6 county health departments**

Water and Environmental Quality

Policy Impact



- **Help implement national policy**
 - **EPA CAFO rule**
 - **NRCS nutrient management policy**
- **Help implement state policy**
 - **Assist NRCS with practice standards**
 - **Help Office of Indiana State Chemist develop fertilizer applicator certification program**
 - **Helped IN legislature write septic system rule**
 - **Helping to revise Indiana's CAFO/CFO Rule**

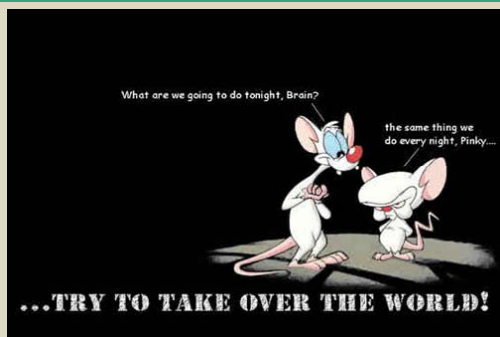
Water and Environmental Quality

K-12 Education

- **Indiana hosts the National FFA Convention**
- **Animated books for young learners**
- **High school crops judging**
- **High school soil judging**
 - **10 area contests and one state contest**
 - **1500 students participate each year**
 - **150 high school teachers participate**
 - **15 professional soil scientists participate**

Where We Want To Go...



Where We Want To Go...

- Improve the efficiency of our Extension program delivery
- Identify and proactively address new areas of Extension
- Foster acquisition of resources for applied research
- Develop next generation of Extension specialists
- Improve Extension's visibility

Where We Want To Go...

Improving Efficiency

- We should increase our clientele base
 - Rural and urban homeowners
- We will address more complex issues
 - Carbon crediting, biofuels, etc.
- We are facing a reduction in Extension FTEs
 - Support in surrounding states is lacking

Where We Want To Go...

New Areas of Extension

- Biofuel Crops
- Air Quality
- Manure-borne Constituents
- Nutrient Criteria and TMDLs
- Comprehensive Land Use Planning
- Climate Change and Carbon Crediting
- New Production Technologies
- Spatial Data Availability

Where We Want To Go...

New Areas of Extension We Can't Do Everything!!!



Where We Want To Go...

Resources for Applied Research

- We are relatively disadvantaged compared to our peer institutions
- Corn and soybean check-off programs
 - Indiana Soybean Alliance
 - Indiana Corn Marketing Council
- Fertilizer Check-off Program?
- Much of our support comes from Industry

Where We Want To Go...

Develop Future Extension Specialists

- Our students are filling our peer institutions' vacancies
- We have difficulty finding well-rounded faculty candidates
 - Soybean Extension Specialist

Where We Want To Go...

Improve Our Visibility

- Extension knowledge/information is used widely by third parties
- The fact that the information delivered came from Extension is a well-kept secret

How We Are Going to Get There...



How We Are Going To Get There...

Improving Efficiency

- Take advantage of emerging distance education technologies
 - Adobe Connect, Webinars, E-Extension?
- Deliver more proactive, curriculum-driven workshops
 - Must still address in-season issues
- Develop and maintain program balance
 - One on one vs. workshops and conferences

How We Are Going To Get There...

New Areas of Extension

- Revisit departmental strategic plan
 - Identify
 - Prioritize
 - Effectively implement
- Align with "Grand Challenges"
- Need a "land use" specialist

How We Are Going To Get There...

Resources for Applied Research

- We have historically believed that this is largely out of our hands...
- However, excellent ideas and programs do attract funds...
- Can we rely on our customers to provide direct support?
- Extension is becoming a fundamental component of larger federal grants

How We Are Going To Get There...

Develop Future Extension Specialists

- **Bring more resources to the table**
 - 1.75 graduate assistant FTEs in Extension vs. 4.5 FTEs in instruction
 - Includes 1.5 FTEs from DTC
- **Include Extension-related experiences in selected courses**
 - **Communicating With the Public Seminar (AGRY 597)**



We Have a New Extension Director

Chuck Hibberd

- **Established Extension Council**
- **Improve collaboration with field staff**
 - **March 12 “summit”**
 - **Make Extension conference relevant**
- **“Transformational Extension”**
 - **What is it? How we do it?**



We Have a New Extension Director

Chuck Hibberd

- **Organize groups with a finite lifespan**
 - **Issue based action teams**
- **Develop outcomes assessment tools**
 - **Accountability**
- **Develop a marketing strategy**
 - **“Valuing” Extension**



Extension “Issues”

- **We need a “land use” specialist**
- **Can we really do more with less?**
- **Can we develop programs that financially support our efforts?**
- **Inequities in start-up packages**

