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Summary of Penn State Ag Council Focus Groups
Prepared for Penn State College of Agricultural Sciences

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Office of Planning and Institutional Assessment

Introduction

On July 18, 2007 the Penn State Ag Council (PSAC) hosted five focus group sessions. The sessions provided input for the College of Agricultural Sciences' strategic planning process that guides the allocation of resources for college teaching, research and extension programs. To find participants for the focus group sessions, Ag Council delegates were asked to nominate constituents of their member organizations or colleagues who have expertise in the five strategic priority areas to participate in the sessions. Five issues of singular importance had been identified by the College as priorities on which to focus resources over the next year. These included:

- Renewable Energy
- Pest Prediction and Response
- Environmental Issues
- Food Safety/Quality
- Job, Economic and Community Development.

Five focus groups (one for each priority area) were convened consisting of college stakeholders with expertise in each of the five areas. 35 people attended. The purpose of the focus groups was to provide guidance in implementing these priorities and input regarding how the college can build on these areas of innovation to best meet the needs of the agricultural industry. The focus groups included four facilitators from the Office of Planning and Institutional Assessment and one facilitator from the College of Agricultural Sciences. The protocol for the focus groups included the following four questions.

1. What are the major issues and trends facing your industry in this priority area?
2. What opportunities do these issues and trends present for the College of Agricultural Sciences?
3. What opportunities are there for collaboration within the College, across colleges and the University, across the state, and/or with industry?
4. Is there any other area where the College should commit resources that have not been addressed in any of the five strategic priority areas?

The focus group sessions were scheduled for two hours, but only the Job, Economic, and Community Development group and the Pest Prediction and Response had sufficient time to address the fourth question. In addition to the facilitators, each group also had a person assigned to take notes. These notes, along with the facilitators' own notes from each session, provide the basis for the rest of this report. The notes for each focus group appear at the end of the report.

Because each industry faces its own challenges and environment, the major issues raised by each group varied tremendously and cannot be summarized easily. However, if the topic is relevant to the major themes, they are addressed in one of the themes below.

Educate the public

Across the five focus groups, participants felt the college could do more to provide information to consumers, government officials and other members of the public. Specific topics varied by focus group, e.g., how energy is distributed, the proper handling of food, etc., but many participants felt the college could do more in educating the public through its extension services and increased communication with the public. Some avenues mentioned included: 1) working through secondary businesses such as Lowes or other home building supply stores for pest management issues or physicians for food safety issues; 2) working with high school teachers to incorporate agricultural topics into the curriculum; 3) educating physicians; and, 4) communicating directly with consumers. Participants stressed the need for accurate

information to come from the college. At least one person suggested that Penn State broaden its communication outlets through podcasts and blogs.

The changing nature and diversity of the agricultural industry was identified in several groups as an area for public education. As suggested by one group, the stereotype of agriculture is simply the family farm, but the industry reaches far beyond this and is actually a form of manufacturing. This same group suggested that the public needs to understand the relevance of agriculture to daily life and that there should be a common level of “agricultural literacy”.

In some instances, it almost seemed as if the focus group participants wanted Penn State to represent the industry and present the industry point of view. For example, notes from one group suggested that the college “stand up for the industry and communicate to the public they are mainly honest”. As another example, notes from the Food Safety focus group suggested that “consumers should be educated on what can and can’t be controlled in the food industry.”

Inform and influence policymaking

Given its proximity to Harrisburg and Washington, DC, and its national reputation, focus group participants felt the college could do more to inform and influence policy, especially by providing accurate, scientific information to policymakers for decision-making. According to one group, more collaboration at the state and federal levels would help in educating urban legislators about agricultural issues and could lead to increased funding opportunities. Specific areas mentioned by the groups included biodiesel policy, energy independence, and environmental issues.

Provide timely and proactive research

Across the focus groups, participants identified a need for the college to provide rapid, timely and cutting edge research to industry. Participants felt the college should be able to recognize and prioritize the most important and useful topics, as issues change rapidly. Several cited the need for Penn State to be known as a “problem solver” while others noted a “disconnect” between the research coming out of Penn State and the state of the industry. Being able to take a more proactive approach to identifying the next big issue was mentioned by several participants as a vital need. Also, members of three of the groups, asked that the college also look at long term impact, rather than relying on research that examines impact over just two or three years.

Undertake, identify and disseminate interdisciplinary research within the college and University

Participants thought the college should be more cognizant of what research was being conducted within the college and the University, and that more interdisciplinary research should be conducted. For example, one participant suggested that food safety and environmental issues overlap and departments within the college could collaborate on these issues, while another mentioned the college could collaborate with the faculty in business on economic development issues. Several felt access to research results could be improved by offering the information in one area so that it could be shared easier. Other participants mentioned that communication between University Park and the campuses and county staff could be stronger. In addition, several participants felt the college could promote more collaboration and better research by emphasizing a holistic view of issues, or as suggested by one participant “no islands anymore”.

Collaborate with industry/other universities

Focus group participants felt that greater collaboration with industry could lead to *better* research as faculty stay current on industry trends and needs and could lead to *more* industry-funded research in specific areas. One group suggested the University’s overhead charges may be detrimental to getting research funded. For example, notes from one group suggested that the “college needs to get better at

partnering with other groups (industry/nonprofit) to leverage funds” and several participants mentioned businesses such as Chevron and Weyerhaeuser, which are funding specific research projects. Participants in several groups noted the need for faculty to attend industry meetings to increase collaboration.

Participants cared less about Penn State collaborating with other universities, although a few members felt greater collaboration could benefit research of large issues, such as renewable energy or integrated pest management.

Several individuals thought Penn State could take advantage of its reputation and become a leader in bringing diverse groups together. One participant pointed out that Penn State has been doing this with the poultry area, but this could be applied in other areas. Another group suggested that in some cases, Penn State could act as a mediator among groups with divergent viewpoints.

Identify ways to work with local and small agricultural units

Participants identified the dichotomy between the needs of large and small agricultural businesses and the ability and need for the college to work with both. For example, one observer pointed out the buying local is a growing trend, but more food safety issues exist with local growers, while another suggested that many small farms are not in compliance with water quality standards. Another suggested that Penn State explore and expand renewable energy at the farm level. In addition, several groups pointed to the need to provide local services and local solutions, through such resources as satellite offices. (One participant called this “distributed research and solutions”).

Provide new educational offerings

Several participants identified the need for the college to offer new programs. These included areas such as arboriculture, forest products, renewable energy, nutrient runoff/trading, and agricultural ethics, among other topics. In addition, one group suggested that the college’s Master Gardener program could be used as a model for a Master Food Safety program, while another group suggested that programs for professional certification, such as horticulturists, be developed. Incorporating globalization into the college curriculum was mentioned in one group, while the issue of systems thinking across a wide range of disciplines (such as horticulture and food safety) was an issue in other groups. Notes from one group suggest “industry needs more cross-trained, well-qualified, educated people coming out of the university”.

**Penn State College of Agricultural Sciences
Penn State Ag Council
Strategic Input Session on Renewable Energy**

July 18, 2007

Question 1: What are the major issues and trends facing your industry in this priority area?

- Opportunities around woody biomass. It would not affect the food supply and is readily available in Pa. With the right chemical pathways, everything could come from a tree that currently comes from oil. Also woody biomass could be utilized in various forms.
- Opportunities around short rotation tree crops.
- Using reclaimed mine land for growing biomass.
- Utilization of wastes from current logging practices in addition to storm damage and urban renewal wastes provide other input streams.
- Debate over smaller, local facilities and larger facilities. While smaller, local facilities were discussed and provide many benefits, they do not entirely replace the need for large scale facilities. An obstacle for large scale facilities is where to locate them. Government and companies like large scale because it creates lots of splash; however, it must be done in a way that is sustainable. A drawback to the small scale facilities is the economies of scale will take hold.
- Transportation - input and distribution.
- Are the resources currently available for the long term success of large facilities?
- Opportunities around other potential biomass feedstocks such as organic canola (can be grown in the winter as a rotation crop), switch grass (can be grown on CRP land without removing it from CRP), sugar beets, flax seed, etc.
- The state lacks a plan for energy independence. Opportunity for Penn State to take leadership role in defining options and balance of various forms of renewable energy.

What are the opportunities do these issues and trends present for the College of Ag Sciences?

- Penn State can provide better public education.
 - There is a lack of awareness and understanding of the energy problem. People need to understand the difference between the different types of renewable energy.
 - The public needs to understand how these processes affect the economy and also what these new processes are. Public needs to understand what is being done and the effect not only globally but locally.
 - The public needs to understand the cycle of energy. They need to know how it is produced and distributed. With this type of knowledge, the consumer can make better decisions. People want to help and to make the right decisions but they do not know how.
 - Public understanding of sustainable forest management and harvesting.
- Training in forest products industry.
- Fragmentation of forest land.
- Participate in public policy arena providing unbiased information. An opportunity also exists for the college to be involved in strategic planning. An example is the high expectation for biodiesel. Pennsylvania desires to use 600 million gallons of biodiesel a year; however, all the soybeans in Pennsylvania could only produce 20-25 million gallons of biodiesel. It was also pointed out that Pennsylvania is a corn deficit state. This point illustrates the need for better education to set more reasonable goals.
- Penn State could perform an economic impact assessment for the state of Pennsylvania around various bioenergy options.
- Offer a degree in renewable energy degree.
- Penn State should also explore and expand renewable energy at the farm level and the possibility of combining different renewable energy technologies such as ethanol production and wind mills.

Question 3: What opportunities are there for collaboration within the College, across colleges and the University, across the state and/or with industry?

- Penn State needs to improve collaboration. The problem of renewable energy is too large for any single university or company.
- More opportunities for collaboration need to be explored as well. Chevron and Weyerhaeuser have formed a partnership to fund research. Conoco Philips is also holding meetings to fund research. Penn State should be involved with these companies.
- Collaboration opportunities also exist at the small scale level. To implement the use of woody biomass for heating and electricity generation, collaborating with local energy producers/users could be beneficial. The mushroom industry, which uses lots of electricity, could benefit and be a potential partner for this kind of undertaking.
- The opportunities within the university as a whole also need to be better utilized. The various institutes and schools need to collaborate more. An example given was Joe Perez's work with bio-lubricants.
- The Penn State school of Agriculture is nationally recognized. The name of the school could be better utilized to help bring in partners.

**Penn State College of Agricultural Sciences
Penn State Ag Council
Strategic Input Session on Environmental Issues
July 18, 2007**

Question 1: What are the major issues and trends facing your industry in this priority area?

- Environmental Issues:
 - Residual effects of animal production - manure, odor, flies, etc.
 - Water quality and quantity issues.
 - Pennsylvania is diverse ag state - #1 animal state ag state, top 10 in 50 commodities.
 - Diversity makes environmental issues complex. Integrated solutions are needed.
 - Many small farms are not in compliance. Address water quality issues with small farmers before state/national laws are passed to mandate their compliance result in shifting land use to non ag uses.
 - Non-point versus point pollution. NP solutions are very complex, difficult to measure and implement BMPs. Time lags between implementation and results.
 - Emerging issue with pathogens. Harder to deal with. Human health component.
 - Deer overpopulation, exotic pests
 - Timberland owner divesting lands
 - Limited window of opportunity (5-10 years). Need to get serious about quantifying and addressing environmental issues.

- Economic Issues:
 - Commodity sector that is subsidized.
 - Difficult to pass on environmental costs to consumers. Transfer across borders is not possible.
 - Need to understand economics matter at all levels (farmer, consumer, state economy, research)
 - Need to address compliance cost issue. Disconnect between cost of environmental regs and public willingness to pay.
 - There are feasibility/priority issues (cost/benefit ratios need to be looked at.)

- Social/Political Issues:
 - Impact of regional, multi-state issues (Chesapeake Bay/Great Lakes Basin) that have uniform mandates for diverse states.
 - Fewer people are knowledgeable in agriculture yet there are greater expectations from ag, which at times are not rational.
 - Lack of appreciation for positive environmental effect of ag.
 - Significant event when changed name from “animal husbandry” to “animal science.” Animal welfare is important.
 - PA has an advantage with location to major population centers.
 - Land conversions (to non ag uses) as farmers retires.
 - PA is proximate and visible to the policy makers (DC) – use to advantage.
 - Confusion with terminology within ag community – compliance, impact, requirements.
 - Pa regulates only 16000 farms, 47,000 more to go (small producers)!
 - Need to teach public that conservation and farming are not mutually exclusive.
 - Ag industry will migrate (Mushroom industry is going to other states) due to urban/rural conflict. Detrimental to all.
 - Non-ag business community, which have been regulated, more vocal regarding ag (non-regulated) and pointing finger. Need to collaborate – point and non-point sources.
 - Policy makers have not done a good job at looking ahead and requesting research around gaps to base policy. Policy is short sighted.
 - Ethical issues. Is there an ethical obligation to feed 6 billion people.
 - What are the impacts/issues of importing food? Shift of production to nonregulated (cheaper) countries. Land-use issues are global.

- There are trade-offs between environment and food safety. Feeding people, generating profits and maintaining environment standards are all integrated
- How do we get a better handle on land use issues?
- What are the benchmarks? Need criteria to define debate (must have food.)
- Problem – declining state Ag budget.
- Constituents and legislators need to be made aware of the environmental issues so that new policies and more budgets can be sanctioned.
- Science Issues:
 - Science is important, but lost husbandry sentiment – lost welfare component. Science alone will not cut it.
 - Science standard much be verifiable and able to be replicated in the market place (cost effective).
 - Information gaps exist. PSU can fill in the research and info gap which can then be used to inform policy making.
 - Politics and science often don't mix. Policy makers not using current science.
 - Need more research sooner. Industry can't wait. Economics change, markets change.
 - Regulations won't wait for research options. Need flexibility.
 - How to prioritize research to address urgent issues.
 - Is it the role of land-grants to do longer term plan (impacts).
 - A lot more research needed on alternative sources of energy. Biofuels beyond corn.
 - University needs to stay up to speed on existing and emerging technologies.
 - Disconnect on info coming out of university and state of the industry.
 - Need better University/industry partnerships to keep research timely, relevant and practical and to implement findings and get feedback.

Question 2: What opportunities do these issues and trends present for the College of Ag Sciences?

- Product development – Research to develop products and markets for value added products (example - manufactured soils).
- Waste streams to value-added to products.
- No islands anymore, system approach, everything is coming together. College can help.
- College must be seen as being solution based. Bringing groups together to solve problems.
- Big wins get noticed – need reputation that you can make things happen! – Results!
- Small farm issue is an Extension issues. Resources for farmers. Education.
- Need to be more flexible and relevant (Example – New Bolton creating a satellite lab at industry site due to proximity to poultry population. Industry loves it!)
- Foreseeing next big issue.
- Keeping it local and figuring out the problems which are there in the community and then addressing them. Research should be distributive tailoring to customers demand.
- Provide market research on what people are willing to pay (strong support for this) for products with environmental costs have been accounted for and provide research to help create markets in PA.
- Branding and market sectors – large scale – build on certification standards like PEACE, perhaps include animal welfare component.
- Perhaps create an Ag Ethics program – values/benefits.
- Nutrient trading, carbon markets, puts ag in great position. Quantify benefits.
- Be one-stop-shopping for research info. Better communications.
- Animal welfare issues are very imp and can be market changing. Changing mindsets and giving information can be very imp in increasing net gains.
- PSU has always been a facilitator and in terms of ethics, there are common beliefs between different camps and PSU can have ethics discussion about what are the issues need to be taken care of. And also have discussions where conflicts and contentions can be resolved. PSU can take the lead and act as a mediator.

Question 3: What opportunities are there for collaboration within the College, across colleges, and the University, across the state and/or with industry?

- Focus research on solving problems and partnerships. Need reputation for solving problems. Serve as nucleus. Funds will come.
- Examples of successful model – BECON (Iowa), Manure Solutions at NC state, Stout Water Resources.
- Serve as facilitator for divergent groups. Bring groups together. Create common ground (focus on groups that are credible)
- Act 24 – environmental curriculum – update image of ag. College should be aggressive here. Provide leadership within ag community.
- Better collaboration within University and College (Example: Corning Glass on how to coordinate large numbers of researchers / collaboration / break down silos.)
- Need to build up networks between stakeholders in the community and the researchers. PSU is doing that in poultry, but there should be more.
- Partnerships – CBF just got large grant for water quality. University needs to better partner with sources of funding.
- College needs to get better at partnering with other groups (industry/nonprofits) to leverage funds. There is money available – tap into new sectors.
- Provide more satellite laboratories. (One participant called this “distributed research and solutions”) Conduct it closer to the customers on industry sites.
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Question 4: Is there any other area where the College should commit resources that have not been addressed in any of the five strategic priority areas?

**Penn State College of Agricultural Sciences
Penn State Ag Council
Strategic Input Session on Food Safety/Quality
July 18, 2007**

Question 1: What are the major issues and trends facing your industry in this priority area?

- Health, wellness, and nutrition are important issues affecting food safety and quality, but they are not usually thought of as part of food safety discussions.
- Biosecurity, homeland security, and threats to the food industry of terrorist contamination.
- Animal care and treatment.
- Physical contaminants.
- Training of workers
- Food forensics and being able to figure out where problems originated.
- Risk communication. There is bogus science being reported, and there are activist groups that provide incorrect information to the public.
- Communication in general. The majority of people don't know much at all about agriculture and they get all their information from the media. Even doctors aren't educated in food safety and agriculture and are providing their patients with inaccurate information. People no longer trust food and agricultural industries.
- Another issue with agriculture today is that those in agriculture tend to have an us vs. them approach. It is important to look at all sides of the story and try to see if there is validity in opinions that agriculture might see as opposing.
- Buying local is a growing trend in the industry today. Unfortunately, there are more food safety issues with local producers.
- Safety issues with organic agriculture, especially composting. Consumers' perception of organic is that is safer and healthier, but this is not necessarily the case.
- In case of natural disaster or security threats, if food is produced locally, then people will more likely be able to have food in case of these dangers.
- Lack of funding for extension and research programs. Industries need to have their own education programs, or they need to help get extension more money.

Question 2: What opportunities do these issues and trends present for the College of Ag Sciences?

- Communicate to consumers about agriculture and food safety and become a credible source for accurate information.
- Stand up for the industry and communicate to the public that they are mainly honest.
- Educate consumers about food safety, outbreak concerns, animal disease concerns, and issues surrounding organic food.
- Educate physicians and provide accurate information to those in the media because these people are main sources of information for the general public.
 - Educate students across colleges about food, nutrition, food safety, and FDA testing. This would be especially important in the medical schools and schools of public health. This is because those in medical schools will eventually be physicians giving nutrition and food safety advice to their patients and those in the schools of public health will be the ones who deal with food-borne outbreaks.
 - Industry needs more cross-trained, well qualified, educated people coming out of the university.
 - Educate local food producers about safe food practices. They can do things to help educate and help make sure they are producing safe food products locally.
 - Internship programs have been successful, but there needs to be more coordination between department head about what is expected out of the internship program.
 - Extension is an important part of what the college does.
 - Help shape federal and state policy. Keep an active role in giving advice to policymakers and public officials.
 - Research. Provide science and research concerning food safety so that the industry knows what the top safety risks are.

- Provide new technologies and new science. They can develop what will be used by the industry.
- Extension outreach to farms, especially small, local farms, to improve management practices and to improve all practices. Helping farms and local businesses get training and certification, but helping with improving beyond just certification.
- More collaboration between the college and industry about research and how to apply the research. Some would like to see a larger emphasis on applied research in the college.
- Consumers should be educated on what can and can't be controlled in the food industry. They should be aware that there is always some level of risk, and they shouldn't feel like they can expect a risk-free food supply.
- Consumers should also receive education on how to properly handle food after they have bought it.
- One way of educating consumers is to teach the teachers. This includes schools where teachers could then teach students and other teachers.
- It was brought up that the Horticulture Department has a Master Gardeners Club, and it was suggested that the Food Science Department could have something similar.

Question 3: What opportunities are there for collaboration within the College, across colleges, and the University, across the state and/or with industry?

- Promote more collaborate in the food system. Those in horticulture and other agricultural fields need training in food safety and food safety issues.
- Collaboration between the Food Science Department and the Nutrition Department, and that the whole College of Agriculture could collaborate with the College of Health and also with the medical school.
- Involvement with the Communications Department to focus on risk communication, especially food risk communication, and also to do further research in the area
- Collaborate with agricultural law where law, safety, economics all could come together.
- Food safety and environmental issues overlap, and there could be more communication within the college on these issues.

**Penn State College of Agricultural Sciences
Penn State Ag Council
Strategic Input Session on Job, Economic and Community Development
July 18, 2007**

Question 1: What are the major issues and trends facing your industry in this priority area?

- Sector Trends:
 - Traditional farming and agricultural occupations and businesses on the decline.
 - Green industries on the increase.
 - National trend toward environmental services: increasing public demand for green cities but lack of resources to do so.
 - Production increases while the number of farm operations decline.
 - Small farms are disappearing due to the harsh economic competition. This leads to educational areas for next generations of students to value specialty/alternative agriculture.
 - Increase in non-farm activities (value added practice of using farms for entertainment purposes, like hayrides, corn mazes, etc.) positive growth but this trend puts a pressure on the operators due to the lack of labor.
- Public Trends:
 - Need to overcome stereotype of agriculture in terms of jobs and careers.
 - Need to overcome public stereotype of ag as only farm production. Build understanding of diverse sectors.
 - There is a need to increase agricultural literacy among the public and educate people about the broad scope of agriculture so they can see the relevance in everyday life.)
 - A dichotomy between economic viability and community development. Family farms are good for community development but not for economic development.
 - Communities negatively perceive big commercial farm operations and fail to see their value.
 - Fewer agricultural people in the state legislature.
- Labor Issues:
 - Becoming more mechanized because of increased technology and labor shortages.
 - Increase use of foreign labor in agricultural has resulted in immigration challenges and the need for better understanding of how to effectively manage foreign labor.
 - Conflicting trends due to the fact that people want to buy locally while at the same time they do not want to use foreign workers to produce food locally and cost effectively so that locally grown food can compete with cheaper imports.
 - Increase in number of students in agriculture coming from non-farm backgrounds. High schools need to do a better job to overcome stereotype of agriculture in terms of jobs and careers.

Question 2: What opportunities do these issues and trends present for the College of Agricultural Sciences?

- Public Education - College needs to define the industry in broader terms beyond agricultural production.
- Need to focus on entrepreneurial and innovative aspects of agriculture.
- Cooperative extension can help with educating foreign workforce on living skills such as financial management, language skills, etc. To deal with the issue of trust, educators should be chosen who have credibility with and an understanding of the culture.
- Outreach programs for entrepreneurs and assistance with business start ups.
- Recognize and assign resources where growth is likely to occur (Example - green industries are growing very rapidly (10% a year) and should have more resources used for training the workforce in this area.)
- Renewable energy presents research and funding opportunities.
- Facilitate awareness of job growth and potential within the ag sectors to enhance access to capital at state level. For example, educating different agencies about the increasing demand for qualified workers in the green industry and others would help put some of these areas on a list for priority educational funding.
- Better cooperation between the industries represented in the Ag. Council and the college of agricultural sciences will lead to greater access to community and economic development funds.
- Facilitate awareness of the diversity, functions, and economics of agriculture to build an understanding that agriculture is a form of manufacturing. There is not a clear understanding how agriculture fits in the business

sector and as a result it does not qualify for many of the funding streams available to other manufacturing businesses .

- Improve PR strategy and look for opportunities to collaborate with other colleges. Possible examples may include Smeal College of Business, College of Medicine, etc.
- Provide courses in nutrient trading because it is likely that nutrient runoff is going to be a big issue in the next ten years.
- Enhance research in priorities identified by the public and the markets such as the green industry and environmental arena.
- Trends and challenges should be addressed across all of the college missions (research, extension, teaching).

Question 3: What opportunities are there for collaboration within the College, across colleges and the University, across the state and/or with industry?

- Opportunities for agricultural economists to work with other departments in research on economics, labor and work force studies.
- Members of Ag Council should have higher profile with the legislators. The goal is not just to get the budget passed but to educate urban legislators about agriculture. Penn State along with members of Ag Council should join together and educate the urban legislators about how important the college and the industry are.
- There is a need to collaborate with other colleges so that we do not duplicate research and we get to know what other colleges are working on.
- Opportunities to collaborate between the university and industry will be enhanced if the overhead cost charged by the university on doing research is reduced. Overhead cost is a deterrent to funding collaborative efforts.
- Access to information on research needs to be improved. There needs to be investment in a system such as an internet-based, web-based or a database to disseminate information. People would be more connected, informed and more likely to collaborate. Having access to information also helps in applying for funding.
- There needs to be a strong presence in Harrisburg to help in PR.
- Branch campuses seem to be disconnected from the main campus and industry which is a deterrent to collaboration.
- Faculty members need to have better connection to the industry. Agricultural researchers should attend industry meetings to obtain knowledge of the real world and get support from the industry.
- Penn State faculty are not always the best ambassadors because they do not have the grounded reality of the industry. They should not act as the lead at the table but as partners. Penn State should look into faculty resistance to change internally.
- At agricultural career day, more professors should be involved and establish relationships with industry.
- Emphasis on productivity and safety.
- Agricultural associations should spend more time educating legislators.
- Penn State and the PDE need to profile the industry as a whole and identify occupation opportunities and specific skill sets so that agricultural jobs can be considered on the high priority list. This is one way to get funding and develop educational courses in high school.
- The collaboration between the university and industry is crucial because it gives the industry access to data and information and the university access to grounded reality and funding. The collaboration creates a win-win situation for industry and colleges. Therefore, more communication between the two parties is needed.

Question 4: Is there any other area where the College should commit resources that have not been addressed in any of the five strategic priority areas?

- Business management of farms.
- Technology transfer from other industries that can be applied to agriculture.
- Biosecurity.
- Enhancing education programs should to include an international or global perspective and understanding of the world economy.
- Being more proactive and anticipating tomorrow's challenges.
- Information sharing between Penn State and industry. Industry access to current research as well as forward-looking research that they can use in the next 20-30 years.

**Penn State College of Agricultural Sciences
Penn State Ag Council
Strategic Input Session on Pest Prediction and Response**

July 18, 2007

Question 1: What are the major issues and trends facing your industry in this priority area?

- Globalization - Many pests come in from international commerce, and that is increasing. Inter state commerce and transport as well.
- The amount and degree of invasions will overwhelm many of the systems we have in place.
- Need to be more proactive, anticipate and be able to plan for treatment, seems like running from fire to fire.
- Animal diseases, we know it's going to hit, but what do we do when it does, what can you really do while you're waiting for the next big disease outbreak.
- Forestry sees transition to more urbanized society. 50 years ago emerald ash would have been a forest issue, but now it is an arbor issue. USDA is dealing with pest as a forest issue, so as EAB moves west, the arborists will have to deal with that as a landscape issue, so need to rework that.
- Losing access to historically effective treatments. Lack of new products to manage existing pest problems. Need effective and environmentally friendly means of pest control.
- Breeders are doing a better job.
- Public concerns with chemicals, residential spraying, etc...
- Customers now want IPM sustainable Ag programs - customer driven requirement
- Beneficials introduced into the landscape that become pests. Not an issue of the species, it has to come down to the management.
- Lack of management, any homeowner can mail order beetles and end up with a population, then there is no way to stop that.
- Need to look at the whole system, holistic approach rather than an individualists approach. Consider secondary effects. (Example: Feral Swine)
- Deer overpopulation debate – role of college?
- Anything can be invasive if it is where it shouldn't be. It may not be harmful. Difference between pests, some are more destructive or active “biological entities that cause economic impacts” that can be a deer.
- Poultry: worry about avian influenza, gets such exposure from human cases, keeping biosecurity protocols, also the public relations needs to keep it in control
- Swine: jeopardize our ability to ship ho PCB2 has huge economic impacts, a finishing barn ends up with 20% mortality, there is a vaccine, need to make sure it does not become a problem in PA. We don't want to be ill prepared when these things do come.

- Decision makers come up with a list for vaccine supplies – need to make sure PA is a priority. Work with PSU and others so we can keep be prepared if we become infected.
- Management models for quarantine need to be science based.
- Multi colored Asian lady beetle, threat to wine industry. When soybeans are harvested, beetles go into the grape clusters to winter over, and taint hundreds of gallons. Deer are a constant problem, eat the vines and fruit. Wild turkeys also.
- Importation of trunk pathogens from California, Canada and Europe, no way to screen the material for pests and pathogens. No efficient commercial scale detecting systems. Can take years if grown to find out.
- Need for faster information, anything to shorten the time span and costs for sampling.
- Bacterial leaf scorch disease. As private researchers look for solution in oak trees, end up looking for it in grapes, it's a long history in grapes.

What are the opportunities do these issues and trends present for the College of Ag Sciences?

- Work with EPA to streamline approval process for controls.
- Focus on educating the home owner. No easy solution. All this knowledge in extension, but how do you get that out to the public and industry.
- Take ownership in the communications arena around these issues. Better PR. Promote Extension. People don't know Extension exists or what it is.

- Increase internet search optimization so PSU/Extension comes up as source of info.
- Increase communications outlets - RFD TV, Podcasts, blogs, etc Need to reach youth.
- Investigate opportunities to distribute information. Is Lowes, Home Depot, an opportunity for the college to reach homeowners. How can extension get information to public. Need to look at nontraditional methods.
- Professional certification programs: used to certify Lowes horticulturalists on staff. Home Depot developed an on line program through University of Alabama; not as rigorous, but less expensive. National Gardening Association and Home Depot partnered to compete with Am Ag Society.
- How do you reach those without electronic communication.

Question 3: What opportunities are there for collaboration within the College, across colleges and the University, across the state and/or with industry?

- College/faculty/educators need to pay attention to public relations and working with industry. More cooperation and understanding needed in how things communicated.
- College needs to understand implications of what is communicated. Example- emerald ash borer, and cicadas, extension told people to hold off on planting trees this spring, but that doesn't harm the trees at all. Tree sales stopped completely when that press release came out from extension.
- Press releases need to be accurate. How are they reviewed?
- Have to re-translate some information from extension sometimes written in a manner that paints the industry in a negative light (seemed to implicate industry as source).
- Penn State has credibility but need to communicate to public in manner laypeople can understand.
- In emergency when dealing with media everyone needs to convey the same message – Extension, faculty, college. Does college have the ability to standardize the language that is going to be used for clarity. Realize faculty and extension see themselves as independent, but creates confusion and reduces credibility.
- College needs to better work with PDA on these issues. Defined points of contact. Needs to be constant communication and coordination between two.
- Do not want to control content, but consistency in delivery.
- Need things to trickle to the county.
- Need to invest in prevention – biosecurity. Need to be prepared. Ramifications are huge.
- Need rapid response.
- Develop teams of extension educators, researchers and people teaching courses on a specific group of pathogens, but need to have the ability to change over time in terms of research focus, because problems come and go and change in terms of importance.
- So much of research is done in 2 to 3 years, but there is no longevity to that. Can we tie in some longevity so we can see the long term future impacts. Eventually it will have an impact.
- Need more collaboration with other land grant universities. Fed govt says higher priority to multi-state endeavors. IPM is an example.
- Partner with other universities. Easier to do on the research side rather than extension. Have good extension agents even if top researcher is somewhere else.
- Research Gap - Soils and nutrient management.
- Loss of researchers and faculty in Hort department. Takes too long to replace.
- Establishing a minor (arboriculture)
- Disseminate research/info via association newsletters. Extension could contribute to association newsletters, perhaps set aside space for research update each month.
- .Distribute "Pa Impact Sheets" to industry.

Question 4: Are there areas we should commit resources to that are not included in this list of 5 groups?

- Family based issues, youth issues, all the family living types of things, maybe it is in community development.
- Urban interface with extension. Urban forests. Urbanization of our society makes it essential to look at community.
- Bioenergy
- Making sure people realize where their food comes from.
- The need to look at the whole system when coming up with solutions.
- When hire graduates, need them to be well rounded so we don't make another problem with the solution.