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Member Presentation Abstracts

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AGRICULTURE ECONOMICS PRESENTATIONS

GEOGRAPHICAL INFORMATION SYSTEMS (GIS) AND COUNTY GOVERNMENT

by Ralph E. Booker, Extension Educator, Agriculture and Natural Resources, PurdueUniversity

Program will discuss the development of a GIS project and data management system for a county government (Marshall County , Indiana). It will review the history of the project, the procurement of GPS points, digital ortho photography, land parcel information, digital soils information, and the development of other GIS layers. Another subject will be how Marshall County intends to create a one stop shopping for the citizens with GIS information .

Extensions role in the project will also be discussed and why Extension is involved. Lastly what the future direction of the project will be such as land use planning, providing information to agricultural producers, etc.

MICHIGAN OIL AND GAS EDUCATION FOR LAND AND MINERAL OWNERS

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Michigan oil and gas production income approaches $1 billion annually. These minerals are the largest land based enterprise income producer exceeding any commodity from agriculture and forestry. MSU Extension's impact is projected to enhance private land income by some $500,000,000 over the next 20 years. This improved lease income saved many Michigan farms over the decade of programming. As a result agricultural land use conversion is minimized. This program is very timely with today's high energy prices and the emphasis on domestic production. Michigan's oil and gas educational program for land and mineral owners is a three hour workshop that teaches basic geology, oil and gas well development techniques, property rights law, language to benefit land owners' leases and site damage, unitization agreements, division orders, estate planning and negotiation skills. Land and mineral owners have little knowledge or experience with the complexities of geology and land law. The workshop delivered live programs in 50 communities to over 2000 people. Another 1500 were served in response to telephone and e-mails. Two videos of the program reached additional 2500 citizens. Local governments were assisted in the campaign to re-direct some of the State Severance Tax back to local governments. The complete package of educational materials includes lease addendum and site damage language to protect owner interest; the MSU series of bulletins on oil and gas; a 90 minute or three hour video of the live program incorporating 90 to 100 overheads. These materials make this subject very teachable and multiplies the direct impact 5 to 10 times.

FINANCIAL COMPARISON OF DIFFERENT TOMATO CULTURAL PRACTICES

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Opportunities exist to increase the amount of marketable fruit produced per acre by using more intensive management techniques. A question that has to be answered is, will the investment of additional resources be justified? Our project was to answer this question from a financial perspective.

Four different methods that used different cultural methods were examined. For our "benchmark method," the bare ground production method was selected. This is a common method of producing tomatoes in the Capital District area and has been used for many years. The second method examined was defined as a "moderate" management system that includes using black plastic and overhead irrigation. The third method examined and considered the most intensive system used: black plastic, drip irrigation, staking and trellising of plants, and pruning. The final method was the production of heirloom tomatoes organically using the most intensive management practices (minus chemical fertilizers and pesticides).

A budget was prepared for each method. Though the budgets are different, the same method of preparation was used for each. Cultural methods (i.e., tillage fertilizer, etc.) and rates of inputs appropriate for each method were included. The types of cultural

methods or input amounts were verified by talking to farmers who are using these methods and Ted's experience in vegetable production.

To date, this information has been presented to district and state-wide vegetable conferences. Future plans include a newsletter series on each budget, making the spreadsheet available to anyone who wants it, and to do some cost accounting with farmer cooperators.

THE JASPER COUNTY FARMERS MARKET - PARK: A UNIQUE SUSTAINABLE AG PROJECT

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Addressing multiple economic development and sustainable ag issues of: (1) providing a place to direct market locally grown or made goods, (2) increase general agriculture awareness in the community, hands-on learning and recreational opportunities for all ages, especially youth, (3)downtown development opportunities, (4)a statewide agri-tourism destination, (5) plus to create the need to increase interest in city and county history, a farmers market agriculture-educational park was invisioned by the County ANR Agent three years ago.

By partnering with a broad cross-section of local & state agencies including the Georgia Department of Agriculture and the Department of Community Affairs, this vision has come to fruition with great community support. Unlike other parks, which are created solely for recreation and their asthetic beauty, this park will serve as a "outdoor classroom" with demonstration plantings and water use, a historically designed pavilion for vendors. There will also permanent displays to promote composting, recy-cling, and pollution prevention including the National Farm/Home Assessment System (Farm/Home*A*Syst) educational sinage. Phase I construction presently in progress with a estimated completion date of summer 2001.

ADMINISTRATIVE SKILLS DEVELOPMENT PRESENTATIONS

PUBLIC SERVICE, OUTREACH, AND THE LAND-GRANT SYTEM – A HISTORIC PAST, CHANGING PRESENT, CHALLENGING FUTURE

Burden, R. W.[1]

Since the early development and implementation extension work, the evolution of university public service and outreach has seen the emergence of a host of specialized areas. Not only has the development of the Cooperative Extension Service extended to all states and territories but also to the Native American institutions commonly called the 1994 institutions or tribal colleges. There are also wide spread institutes for public service, engineering extension services, small business institutes, marine and sea grant institutes, urban institutes and leadership institutes to just name a few.

So where do we, in higher education, find ourselves today with increasing pressure and emphasis for public accountability? Is the public service and outreach mission of the state college and university providing for and/or meeting the needs of the citizenry? There are many examples of the current status of the public service mission as carried-out by our state universities and land-grant colleges. Several examples are offered of the expanded missions and areas of emphasis currently seen in public service. Also covered will be an overview of the recent Kellogg Commission on the Future of State and Land-Grant Universities. This commission was a joint effort between the National Association of State Universities and Land-Grant Colleges and the W. K. Kellogg Foundation.

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PANEL DISCUSSION – CAREER LADDERS FOR EXTENSION AGENTS: THREE MODELS

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This will be a panel discussion featuring three very different career ladders utilized by Extension Services around the county. From full academic

faculty at Oregon State University to Public Service faculty at the University of Georgia to the University of Tennessee's Extension career ladder, panelist will present an overview of each states promotion process. Panel members will provide examples of the different vita's and/or dossiers in use. There will also be a question and answer period.

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MENTORING BENEFITS - RESPONSES OF FACULTY IN THE COOPERATIVE EXTENSION SERVICE

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The purpose of the study was to identify the perspectives held by mentors, protégés and administrators in the Cooperative Extension Service regarding the advantages of a mentoring program and to explore the validity of Zey's Mutual Benefits Model (1984) for the Cooperative Extension Service. Cooperative Extension Service programs in the North Central Extension Region of the United States and peer institutions of Kansas State University were surveyed. These states were Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota and Wisconsin for the North Central Region. Peer institutions included Colorado State University, Iowa State University, North Carolina State University, Oklahoma State University and Oregon State University. The study included all Cooperative Extension Service programs in four areas of Extension work, which included agriculture, family and consumer sciences, 4-H and youth, and community and economic development.

A total of 683 surveys were mailed to Cooperative Extension Service faculty in the 16 states. There were 419 usable surveys mailed back for a return rate of 61.35%.

The overall response to mentoring was seen as a benefit to the organization, mentor and protégé in differing degrees. Mentoring was a benefit to the organization in reducing turnover and increasing productivity. Mentors and protégés found mentoring primarily helpful by increasing their knowledge of the job and providing personal support as employees. Additional benefits of mentoring for the organization, mentor and protégé were confirmed by the surveys.

SAINT BERNARD PARISH FUTURES FORUM: COLLABORATION TO MEET COMMUNITY NEEDS

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The St. Bernard Parish Futures Forum, conducted by St. Bernard Parish Extension Office, identified priority issues and needs for the Parish. These issues were shared with Extension's partners and was the basis for the Extension Service's strategic plan for the years 2000-2003, and Extension's educational programs will be developed in response to community needs and in conjunction with participating partners.

"Collaborating to Meet Community Needs" was a key issue identified by the St. Bernard Futures Forum. Key goals associated with this issue were: (1) to improve the quality of living for St. Bernard Parish residents, utilizing a comprehensive & holistic approach, and (2) to make effective use of available resources & to help increase the resources available to the service organizations in St. Bernard Parish.

In response to the plan, four grant-writing workshops were conducted by a Collaborating Task Force of the Extension Service. A collaboration of the local schools, parish government, Nunez Community College, Extension & several other community organizations was developed, and that collaboration was a key to the success of this program.

This evaluation project helped to determine the satisfaction of workshop participants and the effectiveness of the grant-writing workshops. A modified version of Michael Quin Patton's Utilization-Focused Evaluation Flow Chart (Patton, 1997) was used as an outline for this project.

ANIMAL SCIENCE PRESENTATIONS

PIG TV - TEACHING PORK PRODUCERS VIA TWO-WAY INTERACTIVE VIDEO

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Swine production practices are advancing, as are the methods for sharing the information with producers. Pig TV is a series of teaching/learning modules for employees and employers of the swine industry. It provides an opportunity for pork producers to receive additional training at the convenience of staying close to home while receiving two-way interaction with the instructors. The first in the series of electronic swine education courses was a four-week Breeding Herd Management Class that focused on new strategies in nutrition and management, transcervical insemination, gilt isolation and acclimation, artificial insemination, and semen quality. This course was broadcast in six Purdue Cooperative Extension Service offices in six Indiana counties where the largest concentration of hogs were located. Those who registered for the course received a three ring binder of study materials, colored charts, visual aids and other learning resources which could be used to train new hires. Due to the decreased number of people being trained in production agriculture, it was necessary to offer a program that would enable training for not only the producers, but also the barn managers and other employees. Participants in this first course represented nearly 26,000 sows. Upcoming courses will cover topics in these areas: Grow/Finish, Wean to Finish, Farrowing House Management, Boar Stud Management, Pork Production Management, Financial Management, and Herd Health.

COMPOSTING LIVESTOCK MORTALITY: AN ECONOMICAL WAY TO RECYCLE DEAD ANIMALS THAT IS ENVIRONMENTALLY SOUND

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More than 2,000 Ohio livestock producers have been certified to compost dead animals. Normal mortality of cattle, horses, poultry, swine, aquaculture, sheep and goats can all be composted on the farm utilizing regulatory guidelines developed by agricultural agencies. Ohio State University Extension heads the educational certification process developed cooperatively with the Ohio Departments of Agriculture, Natural Resources and Environmental Protection Agency and the Natural Resources Conservation Service.

The purpose of composting is to biologically treat organic materials to protect the environment, stabilize nutrients, and destroy pathogens in an economical process. This practice applies where: (1) Ground and surface water resources are protected; (2) The risk of spread of disease is reduced; (3) Nuisances such as flies, vermin, and scavenging animals are prevented; (4) Air quality is maintained, and (5) A compost utilization plan has been developed.

Ohio State University Extension surveyed composting managers early in 2001 to evaluate the effectiveness of mortality composting, and the environmental soundness of the composting practice. Survey comments and results will be utilized to strengthen producer certification programs.

RAIPAP STARTED AN ARTIFICIAL INSEMINATION / PREGNANCY TESTING PROGRAM

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The Rural Agricultural Improvement and Public Affairs Project (RAIPAP) is part of New Mexico State University's Cooperative Extension Service and is directed by the Small Farm Task Force made up of 11 counties in northern New Mexico. We assist county agents, small producers, communities and groups in our area with educational programs, demonstrations and information.

In 1994 RAIPAP started an Artificial Insemination / Pregnancy Testing Program for small scale beef producers in the RAIPAP area. Annual schools were established to teach these management practices. These programs addressed the issues of health, nutrition and management. Today, we continue with these programs as a county outreach program.

From this same effort, the Northern New Mexico Bull and Heifer Program began where yearling bulls and heifers, many coming from cows that are artificially inseminated, are tested and sold every year to livestock producers looking for good quality stock.

BATTLING TUBERCULOSIS IN MICHIGAN-THE SCIENCE AND THE SOCIOLOGY OF THE WAR.

P.T. Durst.

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Bovine tuberculosis (TB) was nearly eradicated in the United States. However it showed up in the wild deer herd in Michigan in 1994 and subsequently, has been identified in eleven cattle herds. The effort to eradicate TB has been more than a story of science and husbandry, it is also a story of human emotions, personal interests and conflict in a politically-charged issue. Currently, all Michigan cattle operations must be tested after the loss of the state's accredited-free status. Michigan attempted to divide the state into "infected" (NE Michigan) and "non-infected" areas. This division, still a possibility, has created divisions within the industry.

In addition, because the reservoir for the organism is apparently the wild deer herd, a primary game animal, the eradication strategy has been affected by hunting and tourism interests. MSU Extension has been involved with livestock producers and community issues. This presentation will highlight the history and current status of bovine tuberculosis in Michigan. It will discuss the testing requirements and safeguards. In addition, it will address the human aspect of the eradication efforts and Extension's role in the midst of the battle.

DIRECT MARKETING OF PREMIUM BEEF

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Present the results of a regional marketing program being developed to sustain beef producers in New Jersey and northeastern Pennsylvania. The presentation will focus on the results of a direct marketing project being conducted by cooperating Extension agents in New Jersey and Pennsylvania. The project is being funded by the New Jersey Department of Agriculture, National Cattlemen's Beef Association, and the Brotherton Foundation. The presentation will review the protocol for the project in regard to feedlot management, processing, packaging, consumer acceptance, and marketing potential.

MANURE EDUCATIONAL PROGRAMS IN IOWA: CURRENT PROGRAMS AND FUTURE NEEDS.

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Manure management is an important topic nationwide. Recent legislation in Iowa has created a need to provide livestock and crop producers with continued educational programs regarding manure nutrient management. Federal strategy proposed by the USDA and EPA has reaffirmed the need for educational programs and provide an opportunity to lay groundwork for mandatory as well as voluntary nutrient management efforts, Iowa State University's (ISU) objective is to provide voluntary educational programs for manure nutrient management and train producers to meet the requirements of State laws. This will position producers to continue the educational process to meet Federal requirements.

Currently three educational programs are being implemented through ISU. One program is voluntary (manure nutrient management workshops) and one program is mandated by the State (manure applicator certification). In addition, there is an effort by University faculty and staff to provide access to timely news, resources, research efforts and service providers pertaining to manure management through the use of an electronic clearinghouse. This clearinghouse is called the Iowa Manure Management Action Group (IMMAG) located at http://extension.agron.iastate.edu/immag/.

ADDING VALUE THROUGH THE SHOW-ME SELECT REPLACEMENT BEEF HEIFER PROGRAM

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The Missouri Show-Me-Select Replacement Heifer Program is the first statewide onfarm beef heifer development and marketing program of its kind in the United States. The program was designed to improve the reproductive efficiency of cow herds in Missouri and increase individual farm income. The program objectives include: 1) a total quality management approach for heath and management of heifers from weaning to late gestation; 2) increased marketing opportunities for and added value to Missouri raised heifers; and 3) the creation of reliable sources of quality commercial and purebred replacement females. The program was initiated as a pilot project in two regions in 1997 with 33 farms and 1873 heifers enrolled. Over the past 4 years, 337 farms enrolled 26,661 heifers in the program. Regional livestock specialists serve as coordinators of the program state-wide. State specialists provide program support. Evaluations by survey and personal contact with program participants and buyers show a calving assistance rate of 9% compared to the national average of near 20% for first calf heifers. Thirty percent of the buyers during the Fall 2000 sales purchased ShowMe-Select heifers in previous sales. The value-added aspect of the program was evident in 200 when 1544 heifers sold in 7 regional sales for an average price of $1047 per heifer. Results indicate that a coordinated on-farm heifer development program offers the potential to improve subsequent reproductive performance of replacement beef heifers and enhances the use of various reproductive procedures.

COMPLIANCE WITH THE CLEAN WATER ACT: OREGON ANIMAL FEEDING OPERATIONS AND THE ENVIRONMENTAL PROTECTION AGENCY.

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In the spring of 2000, under the authority of the Clean Water Act (CWA), the environmental Agency (EPA) initiated inspections of Oregon Animal Feeding Operations (AFO). The majority of facilities inspected by EPA were calf wintering lots and calving lots operated by cow/calf producers. These facilities, due to their size, design, and seasonal use, were not regulated under Oregon Statute. For operations in violation of the CWA, EPA imposed fines of $11,000 to $50,000 per operation, depending on the extent of the violation. Oregon cow/calf producers were confused and angered by the EPA action.

The Oregon State University Extension service, under the leadership of the authors, developed a proactive, statewide program to educate producers, the public, natural resource agencies, and local/state government officials on compliance with CWA animal feeding operation regulations. Cooperating with the Oregon Department of Agriculture and commodity organizations twenty-two educational programs were delivered in every major beef cattle producing county. Within three months of completion of the education programs, 52 cow producers (representing 45,900 cattle) had moved cattle out of noncompliance feedlots; fenced cattle away from streams; developed off-stream water; constructed berms or installed culverts to divert animal waste; and/or constructed new feedlots in compliance with CWA. These cow/calf producers expended $890,000 to improve water quality in Oregon.

FORESTRY AND NATURAL RESOURCES PRESENTATIONS

TIMBER TAX SEMINARS BRING DIVERSE PROFESSIONAL GROUPS TOGETHER RESULTING IN UNEXPECTED BENEFITS

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The reporting and taxation of timber income is a mystery to most people, including some tax and forestry professionals. Most landowners are unfamiliar with the tax consequences of asset allocation for timber property. Having dealt with these issues, my co-worker, a natural resources specialist, and I decided to organize and conduct a series of timber tax seminars for tax professionals, consulting foresters, forest landowners and other forestry professionals. The stated objectives were for participants to become more knowledgeable of the tax laws relating to timber investments and to become more knowledgeable of the record keeping required to maximize after-tax income from a timber sale. Seven one-day workshops have been conducted throughout Ohio with approximately 200 persons attending. Resource people have included two out-of-state timber tax specialists, my co-worker and myself. Topics included structuring timber investments, recovering costs, establishing timber basis, reporting timber income and other timber tax topics. Evaluations showed the participants increased their over-all knowledge, better understand the importance of establishing timber basis, can properly report timber income and would be able to save tax dollars for themselves or their clients on timber sales. The unexpected, but most important, benefit of the programs was that tax professionals learned of consulting foresters who could assist their clients when they acquired timber property. Likewise, consulting foresters identified tax professionals who better understood timber taxation and could help their clients requiring tax assistance. As a result, this has become an important objective for this program as well as other forestry programming we do together.

SHELTERBELT PLANTINGS AROUND LIVESTOCK FACILITIES: BENEFITS AND ODOR MITIGATION

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The arrangement of farmstead structures and vegetation within the farmstead or livestock feedlot areas affect aesthetic quality, operational efficiency, energy consumption, runoff, and specific functions on these sites. Manipulation of these elements can establish desirable views, buffer noise, determine air circulation, manage odor, modify air temperature, affect snow or windblown soil deposition, and optimize use of available space. In addition, proper placement of vegetation can help reduce health and safety hazards and enhance quality of life values.

Some early literature suggests benefits of odor reduction from vegetative plantings. More research is needed to address the total impact of vegetative barriers on odor reduction from livestock feedlot areas. However, many people give testimonials to their benefit. Shelterbelts also provide a visual screen, keeping the public from "smelling with their eyes".

Conservation incentive programs make it easier for producers to fund these plantings with minimal investment. Producers need to be aware of all management tools to reduce environmental impact from their livestock operation.

REDUCING FIRE RISK IN THE WILDLAND-URBAN INTERFACE: AN OPPORTUNITY FOR EXTENSION AGENTS

Alan Long, School of Forest Resources & Conservation, University of Florida

Homeowners can enhance the efforts of fire control agencies by assuming a greater responsibility for protecting their homes from wildland fire. The Florida Cooperative Extension Service, in collaboration with the Division of Forestry and The Nature Conservancy, have developed a Fire Education Toolkit to assist extension agents and other agencies with wildfire-related programming for landowners.

We will review the Toolkit and other programs and educational materials that can be used to help landowners assess and mitigate their fire risk. We will also discuss, with considerable participant input, future directions for such risk assessment and landscaping guidelines.

TECHNIQUES FOR IMPROVING NUTRIENT MANAGEMENT AND WATER QUALITY EDUCATION FOR AMISH CLIENTELE

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Ohio has a large concentration of Amish. With only an eighth grade education, most Amish have a limited knowledge of water quality issues. A USDA-CSREES grant provided funds to teach best management practices (BMP's) to members of three Amish communities. A goal was to educate 200 Amish families on BMP's through on-farm visits, educational meetings, and monthly newsletters. Educational programs were revised to Amish farming practices and cultural norms. Over 1,000 farm visits were made to observe, listen, and bring educational materials directly to the Amish. Meetings were held at Amish homes and schools at times convenient for the farmers. Over 210 Amish families receive a monthly newsletter (*Focus on Farming).* The newsletter is specifically designed with sections for Amish farm families. A popular humorous story line (75% fact sheet, 25% fiction) features two farm families who learn to deal with water quality problems on their farms. Other newsletter sections include: a farm coloring page, fun farm safety, *Question of the Week* on local environmental problems, and a food safety/nutrition section. Newsletter topics include management intensive grazing, nutrient management, conservation practices, IPM, and general farming. Other educational programs included free soil, manure, and well testing; manure demonstration plots; and stream monitoring. Adoption rates of 75 to 90% have been attained for selected BMP's.

HORTICULTURE AND TURGRASS PRESENTATIONS

INNOVATIVE PARTNERING - A POSSIBLE SOLUTION TO THE CHALLENGES AND CHANGES EXTENSION MAY FACE

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Mark J. Arena, multi-county Horticulture Extension Agent for Clemson University has generated over 40K dollars a year through partnering. These partners consist of privately owned greenhouse and nursery operations, agriculture chemical producers, and other companies that make products for the horticulture industry. In addition to the funds, information generated from these partners is used to develop programs, submit journal articles, and gain practical experience. These elements are all vital to the continual professional development of an Extension Agent.

The future of Extension Service and the role(s) of an Extension Agents are critical issues for everyone. The more Extension Service and Agents are recognized as assets, the more likely they will be survive. The changes and challenges that are ahead are serious and real, therefore, the better we can prepare and adapt the better our chances for survival. Partnering may be a solution.

CONDUCTING FIELD TRIALS WITH MASTER GARDENER VOLUNTEERS

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Master Gardener volunteers are a valuable source of assistance in conducting field trials and research. However, most are inexperienced in applied research and require training. Clark County Master Gardener volunteers have conducted field trials under the guidance of the horticulture agent since 1995. The first step was to determine the purpose of the field trials. The volunteers determined these; the agent coached throughout the process. When conducting field trials, volun-

teers easily become subjective about plant varieties. Training was initiated in order to teach how to use objectivity when rating plants. The evaluations evolved over time as volunteers learned how to conduct field trails while maintaining objectivity. Other steps necessary in the project include volunteer development in the areas of obtaining supplies and resources, organizing the project, planting and maintenance, developing the evaluation team, public relations and marketing, and publishing of the results. The goal of this session is to provide the steps involved in training volunteers to conduct field trials as well as discuss benefits provided to clientele through the delivery of the results.

BALANCING APPLIED RESEARCH AND EXTENSION: THE CRABAPPLE EVALUATION PROJECT AT THE OHIO STATE UNIVERSITY

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One common difficulty for county agents charged with doing applied, publishable research is the need for laboratory and other research facilities. One solution is to correlate much-needed plant evaluation research with the life of field Extension work. Land and plant material for evaluation trials are commonly available through university and industry connections. This case study details the replicated crabapple (*Malus* spp.) trials at Ohio State University, conducted by three Extension field faculty members. Results from the trials are widely used in Extension programming through workshops, tours, and slide sets for the green industry and Master Gardener volunteers. Publications including fact sheets, research bulletins, and refereed journal articles are ready extensions of this project. Most importantly, this process provides an essential reality check for understanding the limitations and nuances of research. This is a fundamental perspective for Extension professionals that are charged with delivering and translating research-based information. This presentation will include discussions of this eight-year crabapple research project. It will also include a case study of how disease resistance lists commonly sent out by Extension offices can be misleading when not harmonized with correlative horticultural information. Finally, there will be a discussion of how the authors developed crabapple evaluation protocols for the National Crabapple Evaluation Program based on their survey and plot results.

THE OHIO HYDROPONIC VEGETABLE PROGRAM: MARKETING, COOPERATION, AND EDUCATION

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Many Ohio hydroponic vegetable greenhouse businesses are part of traditional family farms and provide an alternative income source for the farm family. The Ohio Hydroponic Vegetable Program (OHVG) began in May 1999 to enhance the profitability and success of hydroponic greenhouse vegetable growers. This unique and comprehensive program provides expertise, resources, and education in the areas of marketing, business planning, budgeting, horticulture, packaging, and greenhouse design. The delivery methods of this assistance range from making produce marketing sales calls on behalf of growers to interactive horticultural and budgeting web sites. A strong educational component is provided by the Hydroponic Study Group, which meets regularly to learn from guest speakers and tour hydroponic greenhouses. The Hydroponic Study Group has been actively evaluating the formation of a hydroponic marketing cooperative. Strong grower relationships have developed from the study group and resulted in growers working cooperatively in marketing, purchasing of supplies, and sharing of horticultural expertise. Also, three, three-day greenhouse food production seminars have been held since January 2000. The seminars combined business, marketing, and horticultural educational sessions, trade shows, and greenhouse tours. Additionally, information distributed through a hydroponic list serve keeps growers informed of greenhouse and entrepreneurial educational events and topics. A Hydroponic Web Site Resource Guide and an extensive Business Resource Guide have

been written to help prospective and established growers make educated business and horticultural decisions. The OHVP also includes two hydroponic demonstration greenhouses growing hydroponic tomatoes, lettuce, and specialty greens in northwest Ohio.

UNDERSTANDING HISPANIC CULTURE IN THE WORKPLACE

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The 2000 US Census Bureau estimates that 35.3 million Hispanics are living in the US. It is projected that by 2020 the Hispanic population will reach 53 million (16% of total population). Over 240,000 Hispanics live in Georgia with close to 150,000 living in Metro-Atlanta. In 1999 Governor Roy Barnes appointed a Latin Forum to recommend changes in the state law.

In metro areas most Hispanics work with the Green Industry which exceeds 300 million dollars per year. Landscape and Pesticide Safety Training has been non-existent within the State of Georgia. Language barriers and cultural misunderstanding between the workers and employers has kept Hispanic workers from receiving training and information on current landscape practices.

In August 2000 we conducted a survey in the Metro-Atlanta Green Industry and16 landscape companies responded with the following results: they employ 696 workers of which 414 (59%) are Hispanic. Management practices that considers cultural differences between English and Spanish-speaking workers could lead to a safer and more productive work environment, improve quality and minimize misunderstandings.

GETTING HORTICULTURAL INFORMATION WHERE IT IS NEEDED

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Research shows that most people get their horticultural/gardening information through garden centers and the media. To increase the efficiency and efficacy of delivering Extension horticultural information to the public and to maximize the use of information gathered and developed for the Buckeye Yard and Garden Line (primary audience is commercial horticulturists), the following methods are used:

Garden Center News - a newsletter targeted to the garden center employee to make them aware of problems that usually occur in a specific month so they can more effectively and efficiently help customers. A summary of information on each topic is expanded with the

inclusion of fact sheets for distribution to their customers.

Garden Center Fact Sheet Displays - OSU Extension displays are placed in garden centers and are stocked quarterly with fact sheets appropriate for the season.

HotLine News - a newsletter targeted to Master Gardeners who staff the horticulture hotline to help them be more effective and efficient. It includes information on topics that normally occur during that particular month. It includes references to Extension fact sheets and bulletins.

Newspaper column - a weekly column that includes information on pests, diseases, and

cultural practices from the Buckeye Yard and Garden Line.

Library displays focusing on a major outreach topic.

These publications are based on the Buckeye Yard and Garden Line of current and previous years and answers to questions received on the Horticulture Hotline. This material also could be used on the county website.

UTAH BOTANICAL CENTER DEVELOPMENT

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The Utah Botanical Center (UBC) will be an exciting, dynamic resource for USU Extension programs in Davis County and across the state of Utah. The 94-acre center will include extensive botanical display gardens, teaching botanical garden for Plant Science Department off-campus credit

classes, Utah House model home with sustainable landscaping, and an Extension office. A tourism and visitor center for Davis County will be an important part of the center. Public open space and wildlife viewing areas will be a vital component of the overall plan. The UBC is a replacement for the botanical gardens that were located in Farmington since 1925. The old gardens were recently displaced by highway construction. Seventy mature trees from the Farmington gardens were moved to the new location to provide a historical tie. The presentation will focus on the new botanical center design concepts and how Extension programs will be integrated into UBC programs. These programs include classes and demonstrations on landscaping, gardening, water conservation, housing and youth environmental education.

SPANISH GROUNDS MAINTENANCE SEMINAR

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The Spanish Grounds Maintenance Seminar was started to meet the needs of the landscape and nursery industry in Illinois. Hispanic employees often have a limited understanding of English language, making it difficult for them to attend and understand English-taught seminars. I started the Spanish seminars to fill this void. Topics such as pruning of trees and shrubs, insects and diseases of perennials and trees, and turf management are based on the needs of those attending and are taught by qualified Hispanic horticulturists. For certain topics, where a Hispanic teacher is not available, a translator is used. If possible, most handouts are written in both English and Spanish. Completed evaluations show that Hispanic employees were very appreciative of these seminars and found the information presented very useful and valuable.

AN AGENT'S ROLE IN THE VIDALIA ONION INDUSTRY

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There are many ways in which an Extension professional can support an agricultural industry. In the Vidalia Onion industry, Extension agents have continually played a pertinent role in the development of one of the greatest success stories in agriculture in this country. There have been numerous methods utilized by Extension in identifying grassroots needs and providing solutions. In 1985, agents initiated meetings with growers across the area to discuss a unified grower group. Agents established an ad hoc committee that pursued a certification mark, a commodity commission, and a federal marketing order. This not only gave the industry one common voice, but also provided legal protection for the famed onion. Production challenges addressed by agents have included fertility relationships to pungency, cost effective weed control, and the management of new diseases. Agent meetings, field days, and field trials have led to a fertility savings of $1.5 million and weed control savings of $2.4 million annually across the Vidalia belt. High production costs due to hand labor prompted an agent to analyze mechanical harvesting systems. Interstate trips with growers, navigating contracts, mechanical bruising studies and storage tests were all part of the agent effort that led to reality. Tody, about 3,000 acres (20% of the crop) are mechanically harvested at a total annual savings of $2 million. In 1999 Extension initiated a cooperative effort involving lawmakers, growers, and several state agencies to form a research farm in the Vidalia onion production area with properties worth over $250,000 to focus on cultural practices. Successful programming requires positive relationships as well as initiative.

TEACHING AND COMMUNICATIONS

DEVELOPMENT OF ASYNCHRONOUS, INTERACTIVE EDUCATIONAL MATERIALS FOR BEEF AND DAIRY PRODUCERS UTILIZING INTERNET DELIVERY

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This project was a result of a 21st Century Extension Initiative grant to utilize new technology in developing educational materials to meet the needs of new or changing extension audiences. Two internet modules and a management tool were developed. These incorporate a high degree of interactivity and convenience to enhance the educational process for Beef and Dairy producers.

The beef module (http://www.ces.purdue.edu/IQ+BEEF/) provides a new method of training to achieve IQ+BEEF certification. The Milking for Quality module (http://www.ces.purdue.edu/milkquality/) provides basic education for milkers employed by dairies. Both modules are broken into chapters with certification tests at the conclusion of each chapter. The IQ+BEEF module is also designed to serve as an information source related to the program.

The interactive beef calendar (http://www.ces.purdue.edu/beefcal/) serves as a management tool. Producers maintain their own password-protected site. A general production calendar is produced based on their answers to some basic questions related to beef and forage management. Dates can also be entered from a central location for promotion of county, regional or state events. Each month includes a list of timely tips. The calendar also serves as a link to other sites of interest to the beef producer.

ENVIRONMENTAL AGRICULTURE DAYS CURRICULUM

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Many children do not comprehend how food is produced and how food production impacts the environment. Environmental Agriculture Days is an opportunity for 5th or 6th grade students to learn about agriculture and it's relationship with the environment in a field trip setting. While the actual field trip is a single day, the program contents are directed by a curriculum for teachers to use in the weeks prior to and following the field trip. This curriculum was written in 1999-2000 and was developed in consultation with elementary teachers and designed to meet the Profiles of Learning in Minnesota. The Profiles of Learning are a set of standards on specific topics that all Minnesota students must complete to graduate. The curriculum consists of seven topics and has in-class exercises, worksheets and/or support materials - including video and computer software. Topics covered include: Ag Products; Carrying Capacity; Growing Corn and Soybeans; Pest Patrol; Soil; Raising Corn…Raising Careers; Farm Ecosystem; and Ag Olympics. The curriculum was written and compiled by the lead author, was reviewed by the co-authors and other extension educators for content and was reviewed by classroom teachers for age appropriateness. Curriculum notebooks were printed at a local printer and distributed to 73 classroom teachers. The teachers also received training in how to use the curriculum and how it tied into the field days.

In 2000, almost 1700 students participated in this program. The field day setting is at a local Environmental Learning Center. Students attend hands on, experiential sessions in the Center building, at outdoor stations and in tent classrooms. Pre- and post-testing of students has shown that if classroom teachers utilize the pre- and post-field day materials, students increase their understanding of these topics.

CHANGING TEACHING METHODS FOR PESTICIDE RE-CERTIFICATION

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Do farmers prefer winter classroom meetings or summer outdoor "hands-on" trainings?

A cluster of five agriculture and natural resource agents in Southeastern Ohio have collaborated the past twelve years to conduct winter classroom pesticide re-certification trainings to enhance a better educational experience for farmers. Agents specialized in different pesticide categories and traveled to other counties to assist in the teaching efforts. More recently, agents decided a more "hands-on" teaching method was needed to assist farmers in better understanding issues surrounding pesticide use. For the past three years' a summer "hands-on" training opportunity has been provided as an alternative to the winter classroom meetings.

A summer field day was planned to re-certify farmers with forages, agronomic crops and livestock. Activities during the day have included flagging weeds in the field for identification; scouting for alfalfa and corn pests; demonstrating sprayer calibration; and treating livestock on-site. The event has been well attended for the past three years.

A survey was developed to compare this "hands-on" educational method to the winter classroom meetings. An 80% response rate was achieved. When participants were asked to compare the summer 'hands-on" training against the winter classroom meetings, they rated the summer meeting as a 4.70 on a Likert-type scale with one being poor and five being excellent. When rating how they were assisted in learning and how they remembered the topics presented, the winter meetings scored a 3.55 and the summer "hands-on" training scored a 4.26, also on a Likert-type scale with one being poor and five being excellent.

TEAMWORK: A WEALTH OF OPPORTUNITIES

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Teamwork often develops based on needs. The Extension Nursery, Landscape, and Turf (ENLT) Team developed in a time of crisis. State specialists retired and replacement was slow and in some cases questionable. Remaining specialists and horticulture agents needed to do something to more effectively serve clientele. The team developed with input from industry stakeholders. Positive feedback from clientele and administrators encouraged the team to continue and expand their work.

It is apparent that there are additional benefits resulting from the team effort - beyond doing the job more effectively and efficiently. Individual members of the team discovered that the team served as 1.) a sounding board for ideas; 2.) a safe place to try new ideas with the support and encouragement of others; 3.) a support group that helped in time of need - both personal and professional; and 4.) a professional family of caring peers. Counties around the state received help from the team. Resources developed by the team are shared with all counties in the state.

Statewide program-based teams gained a model of effective teamwork that was noticed by Extension and the cooperating departments. Interdepartmental cooperation between state faculty members of the team increased. Communications improved and excitement grew. Soon, other teams developed, with the ENLT Team serving as a model, resulting in a more effective workforce for OSU Extension.

Everyone associated with the team is finding that the ENLT Team model has provided the synergy for growth and excitement.