MINUTES
Faculty Meeting
Monday, February 13, 2012, 2:45 p.m.
129 AGLS

1. Faculty MeetingElliot

Dr. Elliot shared with the group that departmental teaching evaluations ran an average of 4.6 on a 5 point scale last semester. He has been asked by other department heads how we do it - their best teachers don't score that high. Student centered teaching is critical.

Educational excellence – where do we stand? Dr. Elliot would like to see a document with bullet points for what we believe. This document would then be shared with faculty for input. The following committee has been formed to address this issue. The charge is to have a draft of this document available at the March meeting.

Barry Boyd
Alvin Larke, Jr.
Jimmy Lindner
Deb Dunsford, Chair

APR Update/Guidelines (Attachment A)

Before February 26:

1. Please complete the 3 "Significant" sections in AIMS as we submit these items to the provost office each year.
2. Verify the accuracy of your AIMS data by using the discrepancy form at the bottom of the AIMS entry page.
3. If your grant(s) are not managed by ALEC, please provide documentation that clearly identifies the percentage (and dollar amount/year) of your responsibility to that project.

Three days prior to your 2011 APR:

1. Send Debbie and me your vitae (or just the pertinent 2011 parts [highlight them] of your vitae especially if you have a very large vitae) and position description (along with your plan of work or goals).
2. For early career personnel please provide me with the name of your mentor and bring your professional growth time line/goals (for those who did that last year, simply update your document).
3. Send at least one impact statement that is related to at least one of our posted public value statements (on our website). **(See Attachment B).** After editing we will be posting the impact statements on our website. **(See Attachment C for examples).**

During your APR:

1. We will look at your research agenda/framework, CV, research skill set, and research topical areas on your faculty page on our web site.
2. We will review your position description.
3. We will create a draft of your APR letter after we review the AIMS.

Dr. Murphy shared that Southern AAAE will be in Orlando in 2013 (February 2-5). The next year, 2014, the conference will be in Dallas and we're in charge. So it will be important to get geared up and take note of how the conference is run in Orlando.

Dr Elliot said that the 2013 Western AAAE conference will be in Lubbock. 2014 will be Oregon. Then in 2015 it will be Hawaii. We will be in charge of that meeting.

Reallocation monies. We have some but with no clear direction as to how it can be spent. $31,000 marked for Study Abroad, 44,500 left. No faculty salaries approved for payment. More than one program was cut.

A draft of alternative teaching credits will be presented at the next meeting.

Higher Education Grants. Submitted seven last year. None accepted. Dr. Elliot will visit with Gregory Smith next week while he is in DC to see if he has advice on future submissions. Dr. Wingenbach said that submissions must be aligned with one of the 5 NIFA priorities. He said that he didn't think we should worry about how many submissions we make. The more, the better.

Next week Dr. Elliot will be in Washington DC to chair the ESCOP Social Science Subcommittee – a two year term. The purpose of the ESCOP SSSC is to: "Recommend specific actions to help the Land-Grant system address high priority research and education issues leading to outcomes that deal with social issues in a significant, measurable way and that will generate sustained financial support." **(Attachment D)**

Travel Request Form Deadlines

Domestic (30 days prior to trip):	e.g., travel April 1, 2012 due by March 1, 2012
International (60 days prior to trip):	e.g., travel May 1, 2012 due by March 1, 2012

Upcoming Events

WRAAAE, Bellingham, WA, April 17-20, 2012
AAAE, May 15-18, 2012, Asheville, NC
AIAEE Bangkok, Thailand Conference May 21-27, 2012
NACTA, University of Wisconsin, River Falls, WI, June 26-29, 2012
ALE, Key West, FL, July 8-11, 2012

Future Departmental Meetings

March 12
April 9
May 14

Before February 26:

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Department of Agricultural Leadership, Education, and Communications
Public Value Statements (How does ALEC serve the public interest?)

ALEC prepares critical thinkers and lifelong learners, as it nurtures its graduates and faculty to derive answers and solve local, national, and global problems.

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ALEC creates an understanding of global cultures and conditions, developing global ready graduates with increased marketability in the workforce.

ALEC develops cultural skills, establishes networking, and increases agricultural knowledge and understanding of others with an increased capacity to work effectively with clients and colleagues in local to international settings.

ALEC listens to experts and involves community partners to identify knowledge, issues, problems, and needs. The information is synthesized and utilized in meaningful discussions that lead to sustainable solutions for communities.

ALEC supports agricultural science and technology research and its dissemination. This support is illustrated within secondary school programs of agricultural education where middle and high school students in agricultural science receive instruction in the science and technology of agricultural production, food provision, conservation, and preservation of natural resources. These educational efforts benefit society by reducing hunger, improving human health and well-being, and conserving natural environments.

ALEC graduates and faculty involved in international agricultural development serve as positive ambassadors from the United States; more importantly, they assist developing countries in increasing their standards of living and improving economic well-being.

ALEC utilizes technology-enhanced instruction so that place-bound professionals can access and participate in educational programs. This instruction results in lower costs for students seeking degrees in their fields of study and allows in-service professionals to continue their education and obtain degrees while maintaining their employment and contributions to local communities and economies.

ALEC plans, delivers, and assesses community programs and educational efforts. Community programs improve, thus encouraging and facilitating more effective decision-making and problem solving within these communities. These programs results in increased economic development and an enhanced quality of life for the communities served.

ALEC leadership education graduates and faculty increase team performance in workplaces. Stronger teams mean reaching goals and objectives more efficiently and effectively.

ALEC agricultural communications and journalism graduates and faculty inform citizens with timely and accurate messages about issues in agriculture, food, and natural resources. An informed society results in better decision-making and improved problem solving.

ALEC prepares teachers of agricultural science equipped with the knowledge and understandings, skills and abilities, and motivation and attitudes to plan, develop, deliver, and evaluate educational programs in agricultural science for youth. Youth, then, are equipped more fully to enter the workforce or to engage in higher education in agriculture and other related sciences and technologies.

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Competitive Agricultural Systems in a Global Economy

Predicting Fertility of Bulls

Issue

Fertility in a livestock enterprise is 5 to 10 times more important economically than any other production measure. Bulls with identical semen quality in terms of physical assessment vary in actual fertility. Means to identify bulls on the basis of fertility potential could result in higher pregnancy rates, leading to larger calf crops.

What has been done?

A color-based diagnostic test was developed to identify a protein on bull sperm. An antibody is used to detect presence or absence of that protein which is referred to as fertility associated antigen (FAA). Bulls with FAA on their sperm are 17% more fertile than herdmates lacking FAA over a 60-day breeding season. Heifers inseminated once to bulls with sperm-associated FAA had a 16% higher pregnancy rate than herdmates inseminated to bulls without FAA on their sperm.

Impact

A 1% increase in fertility in the U.S. beef industry would return a net profit of $55-60 million to U.S. producers. Obviously, on a global scale, billions of dollars of income could result from identifying higher fertility bulls and males of other livestock species.

The King Ranch in Texas has used high fertility bulls in their nucleus breeding herd for eight years and retained daughters of those bulls as mothers in the nucleus herd. They were bred to high fertility bulls each year. The payoff was clear in 1998, when 83% of the calves were born in the first 30 days of the calving season. This resulted in significantly more beef weaned and marketed per cow, which is a direct measure of profit. The method has been adopted by other breeders around the world, including the Pacific Rim, South America, Canada and Europe.

Funding
Hatch Act, National Research Initiative
Local: Sire Power, Inc. and King Ranch

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Meat By-Products

Issue

Meat animals, including cattle, sheep, swine, goats, and poultry animals such as ostrich and emu yield both edible and inedible by-products at slaughter. At the request of ranchers and processors, John Marchello, UA meat scientist, developed an array of meat by-products (anything that comes from the slaughter of a meat animal) to increase the value of each animal.

What has been done?

Various meat by-products were developed at the UA Meat Lab for the pet feed industry, primarily for treats. Products include cooked and smoked beef bones; cooked and dried organs such as heart, liver and kidney; and products from connective tissue, including tendons and neck straps, to be eaten as "chews." Poultry products include smoked and dried ostrich, turkey and emu necks; emu and ostrich jerky, and ostrich and emu Italian and summer sausage. The lab meets federal inspection guidelines for sanitation, and each product has label approval from the Food Safety and Inspection Service (FSIS). The UA Meat Lab currently produces these by-products for several different pet food companies.

Impact

These products have improved the value of each animal by $40 to $50. The lab has developed one product so original that the UA is applying for a patent on the formula for it. It's a shelf-stable meat log for pets that includes 50% meat, along with peas, carrots, and other ingredients. Ostrich products, considered lean meat, have been picked up by pet food companies to be marketed in overweight dog products.

Funding
University of Arizona College of Agriculture

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Clostridium perfringens

Issue

Clostridium perfringens-induced intestinal diseases cause serious livestock losses annually in the U.S. and abroad. The organism is found wherever there are domestic animals, and infections are almost always lethal. Diagnosing the disease can be difficult because the bacterium exists as five types producing four different major toxins. The pathogen must be isolated and tested to determine which toxins are involved. Several earlier detection methods have yielded false negatives, false positives, and other problems. To assist veterinarians and livestock producers, a more practical diagnostic method was needed.

What has been done?

Veterinary scientists at The University of Arizona have developed what is called a multiplex polymerase chain reaction (PCR) assay that allows simultaneous detection of all the major toxin genes in one test. This represents a major breakthrough, since individual tests were previously needed for each toxin. The test has been up and running since 1994, and UA veterinary scientist Glenn Songer and his associates at the UA lab have used it to diagnose thousands of *C. perfringens*-related illnesses at the request of community and scientific professionals. They have typed more than 3,000 isolates on request, from all across North America, and have published instructions for veterinarians who wish to run the test themselves.

Impact

The PCR assay allows rapid diagnosis, which enables veterinary practitioners to quickly and logically institute control programs in affected herds. The method is cheaper than running individual tests for the four major toxins, and more accurate. Furthermore, this assay is done without the use of laboratory animals, unlike the assay which it replaces. It has become the standard, most accepted laboratory method for diagnosing clostridial diseases.

Funding
USDA
Bayer Animal Health
Boerhinger Ingelheim Animal Health
Colorado Serum Company
Morris Animal Foundation

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Specialty Products from Desert Plants

Issue

Scientists at the Office of Arid Lands Studies' Bioresources Research Facility (BRF) in the University of Arizona's College of Agriculture are working with other universities, with pharmaceutical companies and with other commercial entities to develop new biological and industrial products. The ultimate goal of this collaborative research program is to locate specialty chemicals in indigenous desert plants that can be grown as industrial cash crops. Substances active against cancer are in particular demand.

What has been done?

The BRF team selects plants, evaluates them chemically, tests products, performs biological assays, and determines how to grow and process plants commercially. Active compounds may be located in the roots, shoots, leaves, flowers or seeds of a plant. In the case of pharmaceutically active ingredients, those showing particular promise will progress into preclinical, then clinical testing for efficacy. In 1999, after examining several thousand desert plant species over the past seven years, natural products scientist Joseph Hoffmann and his team found two substances so promising for pharmaceutical use that the original patents have been formally revised and submitted as full patents for both U.S. and international coverage. One has topical activity against skin cancer and is now demonstrating other potential pharmaceutical uses. This collaborative group is now studying the impact of the other compound on the current testing model for new anti-cancer drugs. They are also pursuing other leads, including several more that are in the pipeline for in vivo testing.

Impact

The material that has been pursued the most extensively over the past year resulted in a new patent filed in May 1999 and an international patent filed in October 1999. This research has been pursued as a collaborative and multi-institutional project that ultimately could have a significant impact on the treatment and prevention of topical tumors, as well as other biological uses. The material obtained during the latter part of 1998 for the other lead is sufficient to initiate in vivo testing during February, 2000. This is part of an ongoing effort to find unique applications from desert plants with development at the same time to allow for conservation and maintenance of the delicate desert ecosystem.

Funding
Public Health Service Funding NIH, NCI, including cooperation with Eli Lilly and Company; private foundation funding
Arizona Agricultural Experiment Station—Bioresources Research Facility

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Competitive Agricultural Systems in a Global Economy

Corn Gene Identification Project

Issue

Cereal crops are the staple of most human diets worldwide. To improve crop yield and improve nutritive features in cereal crops, plant breeders need to know more about how specific genes work. Until now, no one has ever attempted to characterize all of the genes in a single cereal crop.

What has been done

In 1998 plant scientists from the UA and five other universities won a 5-year, $12 million grant from the NSF to discover all 50,000 genes in corn, the nation's most important economic crop. The scientists are using a new method for discovering and sequencing genes in corn, and are sharing project findings and material resources with public and private researchers working to develop improved traits in corn and many other agronomically important grasses, such as wheat, barley, rice and oats.

Impact

University of Arizona molecular geneticists have characterized about 10,000 corn genes thus far. As they determine the function of each targeted gene, this information is entered into a computer database and becomes accessible to plant breeders, plant genetic engineers and researchers in basic biology around the world who want to know more about how plants work. They can look up gene functions and select only the genes they need to perform certain operations in plants. Slides, gene libraries and seed containing the mutated genes are available to the scientific community. The project is already having major benefits for plant research around the world, according to the researchers. Thousands of people are requesting these genes.

The corn genomics project is expected to lead to greater fundamental genetic understanding of cereals that worldwide contribute roughly 70 percent of the calories in the human diet.

Funding
National Science Foundation (NSF)

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Improved Marketing of Livestock

Issue

Livestock producers on the Hopi Indian Reservation need to improve marketing opportunities in order to gain additional supplemental income. The Hopi Reservation has about 50% unemployment.

What has been done?

A livestock preconditioning program was developed with a group of Hopi livestock producers. University of Arizona Cooperative Extension Hopi Office and the Hopi Office of Veterinary Services provided information to the livestock producers, and also assisted in the development and implementation of the program. Twenty-nine head of steers were weighed at the local sales corral, then fed out at 3% of their body weight per day for 21 days. This was a lower number than the previous year due to heavy rains turning roads to mud, preventing ranchers from bringing in their livestock. Additionally, any steers with horn were dehorned. All received vaccinations for BVD and respiratory problems.

Impact

The gain in weight per steer was higher than expected; 60 pounds was average gained compared to 56 pounds from the feed program last year. Although financially the program did a little better than break even due to low cattle prices, the most important impact was change in attitude on the part of the Hopi livestock producers. They funded this project out of their own pockets, putting out nearly $600.00 for feed and veterinary services. They also worked to bring in new buyers who were looking for pre-conditioned steers. Two new buyers were present at the sale. Seven individuals, representing three families, participated in the program.

Funding
In-kind support from Cooperative Extension
In-kind support from Hopi Office of Veterinary Services
In-kind support from the Polacca Stock Grower Association
Monetary support from participating livestock producers.

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Competitive Agricultural Systems in a Global Economy

Weed Management Techniques for Vegetable Crops

Issue

Vegetable crops and newly introduced crops in Arizona have very limited means of reducing weed infestations from the time of planting until harvest. Spinach is grown on about 2,000 acres in Arizona and during the fall through spring seasons. Typical winter annual weeds such as London rocket, cheeseweed, shepherdspurse, goosefoot, and grasses generally infest spinach fields from the time the crop begins to emerge. The weeds compete with the crop for sunlight, water, and nutrients. Mechanical cultivation with tractors may remove weeds in the furrow between the rows of spinach but expensive hand-hoeing is still required to remove the weeds growing in the rows with the spinach. Without any available herbicide, growers have spent more than $1,500 per acre to have crews hand-hoe the weeds.

Garbanzo beans have been increasing in acreage in Central Arizona in the past few years as a rotational crop that is beneficially grown as an alternative to small grains and offers new marketing opportunities for Arizona growers. During the long winter through spring growing season, weeds become a problem especially as the beans mature. No available herbicides provide season-long weed control for garbanzo bean production.

What has been done?

The University of Arizona Cooperative Extension Maricopa County commercial vegetable crops program has an on-going project to evaluate new techniques and herbicides for weed control in vegetable crops. Initiated in 1994, the project continually evaluates the efficacy and crop safety of newly introduced herbicides for potential use in lettuce, cole crops, melons, onions, and other crops that may be grown in rotation with vegetables in the desert. Results from the Cooperative Extension program's field experiments identified effective and safe herbicides for use in spinach and garbanzo beans that are grown in Arizona. Spinach growers through the efforts of Western Growers Association successfully secured an emergency exemption for the use of metolachlor (Dual® and Dual Magnum® herbicides) in 1998 and 1999. At the end of 1999, garbanzo bean growers successfully petitioned the manufacturer to request and obtain a special local need registration for oxyfluorfen (Goal® herbicide).

Impact

Spinach growers now have a more economical tool to assure crop stand establishment with fewer weeds. The exemption for the use of Dual herbicide does not offer complete weed control but hand-hoeing costs were reduced from $1,500 to $500 for one grower. Goal herbicide compliments other herbicides that are used and provides expanded control of a wider range of weed species that typically infest garbanzo beans. Data from the University of Arizona Cooperative Extension Maricopa County commercial vegetable crops program supported the growers in obtaining the use of the new tools for weed management.

Funding
Various sources of unsolicited gift funds

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Safe and Secure Food and Fiber System

Safe Food 2000

Issue

Food borne illness continues to increase in Arizona. The Arizona Department of Health Services reported more than 8100 suspected cases in 1997. Experts believe that the risk of Food borne illness is increasing due to changes in the food supply system; an increase in group feeding; an increase in the number of people at greatest risk of Food borne illness—elderly, children and people with suppressed immune systems; changes in pathogens and new resistant strains; and new modes of transmission of pathogens. An interdisciplinary, research-based approach to education is needed on the issues affecting the safety and quality of the food supply from the farm to the table.

What has been done?

Safe Food 2000 is a multi-year project focusing on education in food safety with the general public, school food service staffs, group home staffs, food banks and other community groups.

The ultimate goal is to reduce Food borne illness in Arizona and to increase safe food handling practices, from the field to the consumer's plate.

The program uses a broad array of both written information and workshops delivered in several counties in Arizona. Workshops include Master Consumer Adviser volunteer training, food safety education classes, EFNEP (Extension Food and Nutrition Education Program) classes, Safe Food Handling for the Occasional Quantity Cook, Train the Trainer for 70 volunteers and local classes, and an annual Food Safety from the Farm to the Table Conference. Information services include 800-number food safety hotlines, weekly news columns on food safety in a Phoenix newspaper, and Safe Food Weeks, when food safety information packets are delivered to print and broadcast media for dissemination to the public.

Impact

More than 2000 low income families annually have attended EFNEP classes in Arizona. Of these, 93% have made positive changes in their food behaviors, and 52% improved safe food practices, according to follow-up surveys. Safe food practices result in reduced medical costs and fewer lost work days. Similar results occurred with school and institutional food service staffs. In a six-month follow-up survey with participants, 95% reported improvement in at least one safe food practice due to the training, with a 30% increase in safe food practices. These changes affected more than 200,000 children or at-risk adults. As the program spreads, the total potential number of elementary students affected by food lunch practices in Arizona would be more than 562,000 children. Food service personnel are constantly changing, so ongoing education is critical. Extension volunteers and staff have trained more than 300 community quantity cooks in safety practices. Participants report adding new safe practices to their quantity meals with church members, fund-raising dinners and homeless outreach.

Funding
Smith-Lever 3(d)—EFNEP, USDA-CSREES, University of Arizona Cooperative Extension
Note: The following contributors do not provide direct funding, but they do provide staff time and collaborate on projects:

Collaborating organizations—vary by project: Arizona Department of Health Services, Offices of Food Safety and Nutrition, Maricopa County Department of Environmental Health, USDA, FSIS, Intertribal Council, Arizona Department of Agriculture, FDA, Arizona Beef Council, Tucson AIDS Project, Arizona Crop Protection Association, Arizona Department of Education, Smith's Food and Drug Centers, Arizona Gleaning Dairy Council of Arizona, Arizona Republic — newspaper, Maricopa County Farm Bureau, Local food banks

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Healthy, Well Nourished Population

Cholesterol in Eggs

Issue

Americans have eliminated sources of high dietary cholesterol to reduce their risk of heart disease. In particular, they have cut their consumption of eggs. But do scientific studies show that reducing cholesterol in the diet correspondingly reduces cholesterol in the blood?

What has been done?

A meta-analysis was conducted at The University of Arizona using 224 cholesterol studies completed during the past 25 years. The research concluded that eating cholesterol has a minimal effect on blood cholesterol. Saturated animal fat has a greater impact on plasma cholesterol than dietary cholesterol, according to Wanda Howell, the lead researcher for the study. "For most people, dietary cholesterol does not raise blood cholesterol levels."

The researchers are continuing to maintain the database on the effects of dietary cholesterol and are currently looking at potential differences in egg cholesterol vs other food cholesterol. Preliminary analyses indicate that egg cholesterol may have even less effect than other sources.

The study has been included in the Database of Abstracts of Revieews of Effectiveness (DARE), a publicly available database in the United Kingdom, located at the NHS Centre for Reviews and Dissemination at the University of York.

Impact

According to Howell, "Healthy individuals with normal blood cholesterol levels should now feel free to enjoy foods like eggs in their diet every day." As a protein source, eggs are cheaper than most meat products, which would reduce food bills for people who begin to buy eggs more often in place of meat. A rise in egg consumption in the United States would directly affect the egg industry through increased sales and an increased demand for production.

Funding
American Egg Board/Egg Nutrition Center
University of Arizona Agricultural Experiment Station

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Greater Harmony Between Agriculture and the Environment

Maricopa Environmental Monitoring Site

Issue

As water moves through soil it dissolves soluble minerals and carries them in solution down to the water table. If contaminants are present they will be swept along as well. These may include pesticides in agricultural fields, or solid wastes at federal dump sites; either way, they eventually will reach the ground water, affecting water quality. Monitoring systems can help track the movement of these substances and assist government agencies in deciding what to do.

What has been done?

Soil scientists at The University of Arizona, have tested four different strategies for monitoring water and chemicals as they pass through the vadose, or unsaturated zone in soil. The field site is a one-acre plot of bare ground criss-crossed with a very dense surface drip system set up in a grid for applying water and selected tracking chemicals. Various measuring tools were installed in different configurations throughout the field. These have been evaluated for effectiveness and practicality.

Impact

Governmental agencies are incorporating these monitoring methods into their repertoire of strategies for reducing contaminants in the environment. Representatives from the EPA, Department of Energy, the NRC and the Agricultural Research Service attended technology transfer meetings held on-site in Arizona and in Washington D.C. in 1998 and 1999 to learn more about these strategies for monitoring contaminants in soil. In addition, tests on computer models using the data from this project are currently underway. These models will soon be used at sites in the U.S. where groundwater contamination is suspected.

Funding
Nuclear Regulatory Commission
Arizona Agricultural Experiment Station

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Greater Harmony Between Agriculture and the Environment

PM-10 Dust Measurements

Issue

Dust produced through tillage operations can result in lost topsoil, reduced visibility, hazards for equipment operators and reduced air quality. Growers would like to reduce dust emissions from farm practices, and in the past decade several tillage implements have been developed to deal with the problem. Since the late 1980s, when the Yuma-Somerton area and parts of Maricopa County were found to be in violation of the National Ambient Air Quality Standards (NAAQS), work has been underway to evaluate different minimum tillage systems to reduce emissions.

What has been done?

At the request of the Arizona Department of Environmental Quality, Wayne Coates, a professor in the UA Office of Arid Lands Studies, has measured particulate emissions from five different tillage systems and has evaluated the appropriateness of an equation used by the EPA to estimate emissions in Yuma-Somerton and other areas. In his work he has quantified particulate emissions from tillage operations and assessed the magnitude of reduction that would be obtained if reduced tillage practices were adopted. Coates determined that a stalk puller and a USM (uprooter/shredder/mulcher) implement produced the fewest emissions. He also determined that the EPA's AP-42 emissions factor equation was inaccurate to begin with because it only had one variable in it: silt content.

Impact

Coates' goal was to provide improved data to document more accurately the dust contribution from agricultural tillage operations. To this end, he has testified before a U.S. House subcommittee, comparing his measured emissions figures with those from the equation: his measurements for the Yuma area were half those predicted by the equation. During the 1998 session, the Arizona Legislature passed a law creating a task force to set up best management practices (BMPs) for field operations to help reduce dust in the air. Coates' research is contributing to the development of reasonable practices growers can implement to meet the BMPs.

Funding
Arizona Department of Environmental Quality
Arizona Agricultural Experiment Station
Sustainable Agriculture Research and Education Program

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Environmentally Responsible Gardening in Maricopa County

Issue

With close to 3 million people in Maricopa County, a large percentage of them newcomers to the Sonoran Desert, there is a tremendous need for public education regarding appropriate selection, placement and care of plants. The Master Gardener program seeks to improve the health of plants and people while promoting environmental responsibility in the garden. It includes the efficient use of water, fertilizers and pesticides and the reduction of green waste.

What has been done?

Two 17-week training sessions were held in 1999; 101 new Master Gardeners were trained.
Using the multiplier effect, training of Master Gardener volunteers expands the coverage of County Extension agents to fulfill needs throughout Maricopa County.

Impact

Master Gardeners immediately give back to the community by teaching others what they've learned themselves. In 1999, four hundred twenty participants changed their gardening behaviors to reflect environmental concerns, and influenced others to do the same. Maricopa County now has hundreds of Master Gardeners who perform this valuable service in the community.

Based on pre/post evaluation, students who completed the Master Gardener program reported that they were more likely to apply water properly, select the best plants for transplanting, use soil amendments properly, prune appropriately and identify some common insects and arthropods correctly. They were less likely to attempt to control harmless or beneficial insects and more likely to tolerate some plant damage before attempting control (IPM). Participants said they improved their general gardening knowledge about soils, turf, pruning, vegetables, citrus and fruit trees, ornamentals and botany.

Passing on what they've learned: 420 Master Gardener volunteers donated 28,000 hours fielding 23,000 telephone calls at the main Extension office and three satellite locations in 1999.

Funding
Smith Lever

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Reducing Insecticide Use in Arizona

Issue

Insecticide applications in cotton typically account for about half of all insecticide use in the United States. New materials on the market are now enabling cotton growers to reduce their spray applications while maintaining competitive yields. These technologies also help growers implement more ecologically-based IPM programs and become less dependent on broadly toxic insecticides.

What has been done?

An integrated pest management program implemented two new tools in 1997 and continued their use in 1998: insect growth regulators (IGRs, effective against whiteflies) and transgenic cotton. The University of Arizona College of Agriculture collaborated with growers, the USDA, the Arizona Department of Agriculture, the Arizona Cotton Growers' Association, Cotton Incorporated, and others. Both of these tools are highly effective against pests, but safe to humans and the environment. Based on insect hormones, growth regulators disrupt the growth and development of insects. Transgenic cotton is genetically engineered to carry its own biological insecticide, targeting lepidopterous pests, within the plant tissues.

Impact

As a result of this program, during 1999 the average foliar insecticide use in Arizona cotton was the lowest in 20 years, according to state records first kept in 1979. Overall, 1999 had the lowest number of foliar sprays against all insect/arthropod pests in cotton during the 90s, and the lowest costs per acre during the same period. In 1990, growers applied about 11 sprays during the season at an average cost of $113.76. By 1999 this number had dropped to 1.91 total sprays (between one and two sprays) at an average cost of $37.18 per acre for all pests.

For silverleaf whitefly (SWF) in particular, the number of sprays dropped from 1.80 per season in 1992 to 0.40 for the season in 1999. Lint quality went from "very sticky" in 1992 to "very clean" in 1999. In 1992 SWF sprays cost $91.80 per acre, and later in 1995 rose to an all-time high of $145.20 per acre, nearly 75% of the total foliar insect control budget. By 1999 growers spent an average of $10.91 per acre on SWF, which was only about 30% of the total foliar insect control budget. This was the lowest amount of money per acre spent to control SWF since its introduction to the state in the early 1990s.

This success was mainly due to the efforts of the Arizona IPM program and the availability of IGRs and transgenic cotton in reducing the number of insects that appeared. Weather patterns and other factors may also have influenced the appearance of fewer numbers of insects in 1999. Annual cotton acreage in Arizona is usually over 250,000 acres.

Along with resistance management, these IPM efforts reduced insecticide use, conserved biological control agents, and enhanced sustainability and profitability. The availability of these selected technologies, which are harmless to predaceous insects, has provided growers the opportunity to employ IPM practices that enhance the population levels of beneficial insects in the field.

Funding
Hatch Act, Smith-Lever 3(b) and (c), Special Research Grants, Smith-Lever 3(d)
Other CSREES: Western Region IPM; National Pesticide Impact Assessment Program, Western Region, Cotton Incorporated, Arizona Cotton Growers Association, Industry (Agrichemical)

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Low Volume Irrigation in Lemons

Issue

Increasing urban demand for scarce water resources in the western U.S. has led farmers to sell some of their water rights to metropolitan areas. This trend is expected to continue, eventually leading to reduced water availability for citrus production in Arizona, and to increased establishment of citrus groves with low volume irrigation systems. Current nitrogen fertilization practices will need to be modified for a low volume irrigation system and best management practices (BMPs) established.

What has been done?

Research at the Yuma Mesa Agricultural Center has focused on 1) Quantification of the amount of water saved using low-volume irrigation, 2) the identification of physiological differences in lemon trees subject to low volume and flood irrigation and 3) development of BMPs for lemon under low volume irrigation.

Impact

Lemon trees are being grown using low volume irrigation while providing only 17% of the water normally required for flood irrigation (1999), with improved yield and no loss of fruit quality. Using current water prices, low volume irrigation would save growers about 9% of their yearly growing costs. The researchers have also grown lemon trees using low volume irrigation while providing about 50% of the recommended nitrogen. Based on this research, one large grower is now establishing all of his new groves with low volume microsprinkler irrigation.

Funding
Hatch Act
Commodity: Arizona Citrus Research Council

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Lygus Management

Issue

Integrated pest management (IPM) plans must be flexible enough to accommodate different insect pest pressures from year to year. After years of lesser status as a cotton pest, lygus bugs returned in full force and for a protracted period during Arizona's 1998 cotton season. Among growers, typical control measures for lygus have involved tank mixing combinations of broad-spectrum insecticides in the unfounded hope that this practice will give more control over the pest.

What has been done?

The UA College of Agriculture has developed an integrated pest management program (IPM) for lygus in cotton aimed at reducing insecticide use through adequate field sampling, adherence to threshold guidelines, and using the right compound for the job. These measures are being incorporated into the larger cotton pest management program, and focus on reducing spray applications from mixed broad-spectrum insecticides to more selective, targeted single insecticide applications. One key to the success of the program has been the accurate identification of single spray compounds that perform consistently against lygus. The education component of this program has assisted growers in implementing this strategy during the last three cotton seasons.

Impact

In response to this IPM program, more than 50% of the region's cotton growers have changed their chemical tactics against lygus by switching to single compounds used strategically and at appropriate rates as part of an IPM system. Arizona extension cotton specialists have been able to teach and demonstrate to growers that these single compounds are as effective or even more effective than broad-spectrum combination sprays, and that this practice helps reduce the risk of resistance in lygus and other insects while minimizing negative impacts on beneficial insects. In 1999, growers applied the fewest number of sprays statewide against Lygus in cotton since 1993, thus reducing their costs per acre while protecting the environment.

The success of this program has led for the first time efforts to control Lygus across multiple crops (Lygus are highly mobile and feed on several crops in addition to cotton). Growers have begun meeting with Cooperative Extension personnel to develop cooperative plans involving cropping sequences and cultural controls to reduce damage from Lygus.

Funding
Arizona Cotton Growers Association, Hatch Act, IPM 3-D Smith-Lever, Agrichemical Companies

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Reclaiming Wastewater through Soil Aquifer Treatment

Issue

Water-short areas in the U.S. and around the world have turned to reclaiming wastewater as a way to increase water supplies. Some treatment methods use chemical additives to help purify the water. Charles Gerba, a University of Arizona environmental microbiologist, tested a more natural method currently used in Tucson, and found that it produced high quality nonpotable water without additives at a low cost.

What has been done?

The soil aquifer treatment used a 37-meter layer of soil as a filter. Wastewater was purified as it passed through, and was then collected in underground storage tanks. This is a natural, sustainable system that will not wear out. It takes the place of building a conventional treatment plant.

Impact

The soil aquifer treatment significantly reduced enteroviruses as they passed through the soil. Groundwater samples held no Giardia. The two organic compounds present were reduced by 92% and 85% respectively, and total nitrogen leached out 47% during recharge. The project has now expanded to include the City of Phoenix in Arizona, and Los Angeles and Orange Counties in California, at the request of those communities.

Funding
City of Tucson, American Water Works Association Research Foundation
U.S. Environmental Protection Agency
Tucson Water
City of Phoenix, Salt River Project
Los Angeles County Sanitation District
Agricultural Research Service

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High School Financial Planning Program

Issue

To enhance the financial well-being of teenagers in their adult years, it is essential that they become knowledgeable about personal finance. This is especially true considering current trends reflecting rising personal bankruptcies, consumer credit delinquencies, and inadequate savings for retirement among adults. Studies concerned with the financial knowledge of teens have reported that teenagers are progressing into adulthood without the basic skills and knowledge it takes to make educated financial decisions once they are on their own. Additionally, the spending power of teens continues to increase. According to a new survey by Teenage Research Unlimited (TRU), Northbrook, IL, teens spent $94 billion of their own funds in 1998 and another $47 billion of family money.

What has been done?

Since 1991 the University of Arizona Cooperative Extension, in partnership with the National Endowment for Financial Education (NEFE), and local teachers, have educated high school students about basic money management and financial planning concepts. A new national partnership is being formed with the Credit Union National Association (CUNA) that will provide additional support for expansion of the program through training models for credit union professionals interested in working with high schools in their local communities.

Impact

Approximately 38,235 Arizona high school students and other youth have increased their knowledge of money management skills since this program began. As a result of participating in the NEFE High School Financial Planning Program (HSFPP), 86% of the students demonstrated an increase in financial knowledge or behavior when dealing with money. Other identified changes as a result of participation in the HSFPP are:

- 47% know more about the cost of credit
- 27% compare prices when shopping.
- 31% set aside money for needs and wants
- 31% used a spending plan or budget
- 30% repaid their debts
- 35% began tracking their expenses
- 29% of teens started saving
- 36% wrote down money management goals
- 45% knew what questions to ask when shopping for auto insurance

Establishing a savings account was identified by the greatest number of students when asked about the most important thing they did as a result of participating in the HSFPP. This finding is particularly noteworthy since a recent study from the National Bureau of Economic Research indicates that if you teach a teen to save, he or she will save more as an adult.

"I compare prices when I shop. I know more about credit and insurance, and I feel more confident about money."

"I've been saving it up and using it when I really need it and not spending it on impulses. I put it in the bank. I have time to think about each thing I want to purchase."

Funding
University of Arizona Cooperative Extension
National Endowment for Financial Education (NEFE)

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Trick or Treat so People Can Eat

Issue

Community food banks conduct periodic drives, particularly near the holidays, to replenish their stores of food for the needy. Several years ago, 4-H youth in La Paz County, Arizona, began a food drive that took place on Halloween in conjunction with trick-or-treating. In 1997, the program was adopted through 4-H on a statewide basis, and reflected 4-H's commitment to youth and adult partnerships.

What has been done?

"Trick or Treat So Others Can Eat" was an Arizona 4-H Community Service project held in 1999 to benefit community food banks.

Youth were encouraged to trick or treat for non-perishable food items. About 614 youth collected food in seven counties across the state. The UA's Collegiate Wildcat 4-H Club was a part of this activity; they donated part of their collection to Tucson's Ronald McDonald House.

Impact

In 1999, more than 12,447 pounds of food were collected from across Arizona, nearly double the amount collected in 1998. Not only was a large amount of food made available for needy families, the program also promoted the 4-H program's commitment to youth and adult partnerships and its emphasis on youth making a difference in the community.

"When we delivered food to the food bank, the kids decided to stay around and help sort food," said Sue Browning, a 4-H volunteer in Maricopa County. "The kids keep asking me when we get to go back to the food bank."

Funding
Feeding the Hungry Grant Program, with Kraft Foods, Inc. and National 4-H Council as partners

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"MONEY 2000+"

Issue

Many families are living at the brink of financial disaster with high credit cards debts, low or no savings for emergencies, and no financial plans in place. Should a financial crisis occur or an unexpected life event, an already vulnerable situation can become a disaster with no safety net in place. MONEY 2000+™ supports the Federal Performance Goals to reduce consumer debt and to increase consumer savings. The personal financial program also supports the CSREES goal "to enhance economic opportunities and quality of life among families and in communities."

What has been done?

A task force was formed comprising local, county and state partners from Extension, public schools, volunteer organizations, government, Native Americans, and non-profit agencies. Program guidelines, curricula and marketing strategies were gleaned from national MONEY 2000+™ participating states, CSREES, and the USDA. The MONEY 2000+™ program is a Financial Management Education Program designed to increase the financial well-being of participants in the program through increased savings and reduced household debt. Arizona individuals and families were encouraged to set financial goals to be achieved by the end of the year 2000 or a date of their choice. For a $10 enrollment fee, Extension provided each participant with financial education: start-up kit, record-keeping materials, seminars, workshops, classes, home study course, educational materials, a quarterly newsletter, video loan, ongoing support with six-month follow-up and help from mentors.

Impact

As of December 31, 1999, the total dollar impact of MONEY 2000+™ in Arizona, with 3 counties reporting impact data, was $356,396 of financial improvement that included $145,974 of increased savings and $210,422 of reduced debt. There are 294 households enrolled in Money 2000 in Arizona.

County and state statistics were compiled and reported to Cornell Cooperative Extension for a national impact. As of December, 1999, the total dollar impact of MONEY 2000+™ nationwide, with 32 states reporting impact data, was just over $12 million. That includes $6,767,581 of increased savings and $5,262,074 of reduced debt. Currently the program has over 12,000 households enrolled nationwide These figures represent a 119 percent financial improvement since last year, and a 71 percent increase in households enrolled in MONEY 2000+™.

Funding Sources
Cooperative Extension -statewide programming

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Resource Management & Consumer Affairs

Issue

Personal Finance is an area of concern that has been identified at the national level with CSREES, the Jumpstart Coalition, AFCPE, and many other organizations. Many families are living on the brink of financial disaster with high credit card debt, little savings for emergencies, and no financial planning skills. This is of particular concern because of the stress associated with living on limited means, mismanagement of resources, the cost to business and society, and the fact that most young people identify their family as the source for most of their financial knowledge. In 1998, over 26,000 people filed for personal bankruptcy in Arizona alone. According to the Consumer Federation of America, survey data show ½ of American households have accumulated less than $1000 in net financial assets and a majority of American households with incomes of $35,000 or less believe they are more likely to accumulate a nest egg by winning a lottery or sweepstakes than by saving and investing. La Paz County, Arizona, has an average household income around $22,000 making families very vulnerable to financial crisis.

What has been done?

The Arizona Cooperative Extension collaborated with agencies and businesses in La Paz County to sponsor several programs related to money management, including the national Money 2000TM, High School Financial Planning Program (HSFPP); extension agents collaborated with the Arizona Attorneys General Office to promote Lifesmarts: The Ultimate Consumer Challenge to schools/organizations.

Impact

Money 2000 participants are reaching their goals ahead of schedule and say the program helps keep them motivated and focused on their saving/debt reduction goals. Six-month reports show they have increased financial well being by $44,869. One participant has used the Power Pay debt reduction information to reduce debt by more than $4000 in 6 months and says, "Money 2000 keeps me focused on being out of debt within two years."

Funding
National Endowment for Financial Education
CRIT Housing Authority
ACE

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Pinal Parent Project

Issue

When families are torn by fighting, abuse, alcohol or drug addictions, with parents too young or too tired to take care of children, they need help. The Pinal Parent Project, sponsored through the Pinal County Cooperative Extension, trains paraprofessionals to teach parenting to high-risk families.

What has been done?

More than 40 paraprofessionals from the Department of Economic Security, Head Start and other agencies are joining with extension volunteers to work one-on-one with at-risk families. The Extension-developed curriculum includes child development, parenting skills, home management techniques, life skills and resource referral. Partnering of families and volunteers works because they can relate to each other. Volunteers range between 16 and 75 years of age, and are of all ethnic backgrounds. They come from the same communities as the family with whom they work.

Impact

During 1999, 1,572 families participated in the Pinal Parent Project. Eighty-nine percent of the participants reported that the discipline they use at home with their children is less harsh and has improved. Ninety-four percent reported that their lives have changed in a positive way as a aresult of the classes. The program has expanded over the past year to include audiences not previously reached, including court-referred truancy cases, about-to-be-released prisoners, who will be returning to parenting roles, and welfare-to-work (TANF) participants.

Funding
Department of Economic Security
Head Start
Arizona Cooperative Extension

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Volunteer Leadership Development—the Players' Club

Issue

Parker, Arizona is a small town along the Arizona-California border with few resources for youth recreation–no mall, movie theater, bowling alley, or other place to gather. The alternatives were drugs, sex, gangs, stealing, and vandalizing. When these problems began to increase among Parker youth, the Arizona Cooperative Extension worked with town leaders and organizations to develop recreational programs.

What has been done?

Five youth, one adult volunteer, and an extension educator participated in the "Teen Biz" program, offered through the University of Arizona in 1995 and developed the idea for a youth center. After gathering monetary support from the Parker Area Alliance for Community Empowerment and other county, city and university sources, they opened the Players 9th Street Youth Center. It was expanded in 1997 and now features a snack bar, large open game/activity room, computer room, learning kitchen, meeting room, and offices in a 4,000 square-foot facility centrally located in town. The center is available for youth groups and youth serving agencies to use as a meeting location. In 1999 more than 16 organizations met at the center.

Impact

The Player's center, which operates on a membership basis, has become the major focus of youth activity in Parker. More than 1200 youth aged 10-18 have purchased memberships since the center opened. About 65 youth ages 13-17 have obtained employment training via the center; another 65 have developed job skills through volunteering. As of January, 2000, youth had volunteered 4134 hours and adults 1538 hours, saving the center $43,263 in operating expenses.

These Parker youth programs have succeeded to the point that they have become a model for similar programs in other communities. Five Parker youth leaders were asked to present their success story of the youth center "Moving Beyond Talk" to 125 participants at the Sedona Town Hall in Flagstaff. Youth Center teens also facilitated a workshop for 18 youth and adults from Navajo County to learn how to start a youth center. Two youth now serve on the Governor's Youth Commission and started a local group that assists with decisions about their youth center. Teens also made presentations at the National School Age Workshop in Seattle on the youth center. Results speak loudly here with the actual construction of the youth center through a community development block grant.

Funding
Town of Parker
Parker Area Alliance for Community Empowerment (PAACE)
Arizona Cooperative Extension
Governor's Alliance Against Drugs
School Districts
County Probation Department
Behavioral Health Services
Community Coordinating Council
Parker Rotary

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Postponing Sexual Involvement

Issue

Teen pregnancy rates in Arizona are among the highest in the nation. The Postponing Sexual Involvement Program is designed to help reduce teen pregnancy rates in five Arizona counties.

What has been done?

More than 5,000 students in grades five through nine, from the rural communities of Chinle, Eloy, Globe, Miami, Casa Grande, Hayden-Winkelman, San Carlos, Mohave Valley, and Yuma, Arizona have completed five 40-60 minute sessions on postponing sexual involvement. The sessions are designed to assist pre-teens and young teens in recognizing existing pressures to engage in premature sexual behaviors, to increase their awareness of the benefits of postponing sexual behavior, to provide skills that will enable them to postpone sexual behavior, and to encourage them to examine their personal values about sex and recognize the risks associated with premature sexual activity.

Impact

More than 5,000 pre-and post-test surveys completed over a four-year period indicate that the program affected subgroups of teens differently. Students who benefit from the program by changing their sexual behavior also tend to have protective factors in their lives such as good relationships with parents, good grades, and future educational aspirations. Those who don't tend to report higher rates of delinquent behaviors. Overall, the program also seemed to have a greater impact on females than on males. Adults and teens in the four communities said they liked the program and wanted it to continue.

Funding
U.S. Department of Health and Human Services
Office of Population Affairs
Office of Adolescent Pregnancy Programs

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Project SOAR

Issue

Gang activity, drug use and truancy can affect even students in elementary grades. Students who engage in these behaviors may end up with bad grades and early police records. Studies show that youth stand a better chance of avoiding risky behavior and academic failure when they experience strong connections in school. Mentoring programs offer students both academic and emotional support.

What has been done?

Project SOAR is an extensive mentoring program for elementary school youth who are in danger of academic failure and of engaging in high risk behavior. The program is jointly administered by the Arizona Supreme Court, Arizona Cooperative Extension Family Community Leadership/4-H Youth Development, two elementary schools and two community colleges. Students, parents and mentors work together in a comprehensive program that includes mentor training, academic support, skill building, leadership enhancing opportunities, parental involvement, and social and personal interaction. Held at Hamilton and Fry elementary schools in the Phoenix area, it targets ethnically diverse students and families, with primary focus on Hispanic, African American and Native American students.

Impact

Officer referrals decreased by 77% at one school site. Average attendance increased by 5 days at Fry school. Students reported 2.4 on a 3 point scale in knowledge gained in SOAR. Pre/post student behavior scales by teachers showed a significant increase in scores of 3.72 points (using tests). Using a 4-point scale, parents reported that their children exhibited positive behavior changes (3.6), good school work (3.8), positive attitude (3.6), less violence (3.9), less delinquency (3.3) and less gang participation (3.9). About 76 % of the students increased their academic performance.

Funding
UA College of Education
Hamilton and Fry Elementary schools
South Mountain and Chandler-Gilbert Community colleges
grantors from United Way, Phoenix/Chandler, and the Arizona Supreme Court

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The Extension Connection —Life Skills Training

Issue

The Extension Connection is a major part of the "Project S.T.R.I.D.E." (Successful Training Resources for Individual Development) program, a 'job linkage demonstration project'. Stride's mission is to assist unemployed, low skilled, and disadvantaged Phoenix Enterprise Community (low-income) residents with training which promotes job readiness and self-worth to overcome barriers to entering the world of work and achieving job stability and advancement, and job placement. It is one of the first projects directed at employment for the very hard to employ.

What has been done?

The Extension Connection provided a six-week life-skills program with components designed to help families become more conscious of healthy and nutritious meals; aware of food safety; self-sufficient; equipped to handle their families need and concerns; better at understanding that work is a means to achieving goals not the end all; more able to take better charge of their lives; more valuable to their community; acclimated to employment and education and better able to budget and plan their money.

Participants in the program ranged from former gang members to newly arrived immigrants to the United States whose lack of English and American job skills caused significant barriers to employment. Ninety-five percent of the program graduates were members of racial or ethnic minorities, 40% had less than a high school education; many had criminal records.

Impact

Of the 50 people who completed the program in 1999, twenty-eight were female heads of households. Job placement was a part of the program; 45 of the participants secured jobs. Positions paid from $5.50 to $12.60 per hour. Participants reported that the program helped them regain their self-esteem, get on track to a job and career and open the doorways to continue their education. Hadco, the first company to work with Project S.T.R.I.D.E, has gained 12 employees in its manufacturing facility, with four working more than a year thus far.

Testimonials from participants: Forty-one-year-old Yan Aung immigrated to Arizona with his family nearly 3 years ago from Burma. Forty-year old Khin San Myint was already employed at Hadco of Phoenix, which manufactures circuit boards, but she sees S.T.R.I.D.E. giving her skills to someday obtain a promotion, "We can now face everything before employment, what are the requirements, how to prepare for an interview, how to write a resume. We had to practice these things everyday before the group."

"Because of the differences from our country I have had to start from the beginning and only now, after S.T.R.I.D.E., have a factory job performing electronic assembly. We learned how to live in American society, how to pass over difficulties and achieve our goals. We are very thankful for Project S.T.R.I.D.E. and the Extension Connection and would highly recommend it to anyone."

Funding
City of Phoenix/EFNEP - federally funded program

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impact
of the College of Agriculture

THE UNIVERSITY OF ARIZONA
COLLEGE OF AGRICULTURE

Economic Development and Quality of Life for People and Communities

TeenBiz

Issue

Young and mid-adolescent youth often don't have a clear idea of the careers they would like to pursue, or how to prepare themselves for the work world. A summer program annually sponsored by the Division of Retailing and Consumer Studies, the Southwest Retail Center for Education and Research, and Cooperative Extension, all at The University of Arizona, offers pre-college youth a chance to participate in a hands-on retail strategy and management program geared for careers in retailing.

What has been done?

"TeenBiz," now in its sixth year, is a week-long residential campus experience held at The University of Arizona during the summer. Between 30 and 35 students participate in tours and job-shadowing at local businesses to learn more about their operations. They explore retailing business decisions involving merchandise assortments, store or office design, pricing policies, business plans, bookkeeping, personal products and/or services. They also attend sessions on presentation skills, prepare resumes, participate in mock interviews and explore retailing career options. The week concludes with group presentations which are judged by selected retail store managers. Youth must apply to the program, and represent a diverse group from across the state.

Impact

Five students from the 1995 program went on to establish the Players 9th Street Youth Center in Parker, Arizona. They used the business plan they drew up on the last day of the workshop to design the center, secure funding and equipment, and open the facility. The center provides a badly needed place for Parker youth to go in a small town without many resources for youth entertainment. The Center now sponsors a 4-H special interest club devoted to the prevention of drug and alcohol abuse among youth.

Several alternative school students who completed the TeenBiz program have now completed their schooling and obtained jobs with TeenBiz retail cooperators. Others are furthering their education to prepare for the work world as a direct result of the TeenBiz experience:

"TeenBiz helped me develop skills that I have used often throughout my first year at The University of Arizona. The world of the retail industry, how to develop a presentable resume, and how to approach a job interview were some key elements I got out of the experience. This experience also influenced my choice in selecting Agriculture Technology Management as my major. I also discovered how much I really enjoyed public speaking and working with other people—the business side of me." —Teresa Noon, TeenBiz participant

Funding
Sears Roebuck Co
J.C. Penney
Basha's grocery
Arizona Cooperative Extension 4-H Youth Development

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Society Ready Graduates

UA Collaboration with NAU, AWC, CAC

Issue

Arizona's three public universities are located in Phoenix, Tucson and Flagstaff, leaving rural areas of the state unserved for academic programs in agriculture unless students matriculate to the University of Arizona. Distance education allows students to complete a bachelor's degree without leaving their home towns.

What Has Been Done?

Interactive television courses are offered in Yuma, Coolidge and on the University of Arizona campus as part of a collaboration between the UA College of Agriculture, Central Arizona College's Signal Peak campus near Coolidge, and Arizona Western College in Yuma, using microwave television technology provided by Northern Arizona University. Specially equipped classrooms in all three locations enable students to interact with the teacher and each other simultaneously. Live class sessions are transmitted from Tucson to Yuma and Coolidge, and also from Yuma to Tucson. Students enroll at the community colleges for lower division coursework and then take the distance courses through NAU and the UA to complete their degrees.

Impact

In 1998, this cooperative interinstitutional arrangement enabled more than 70 students to take courses from the university of Arizona without leaving their home towns. The program fulfills one of the Arizona Board of Regents priorities: to expand access to the university. These are nontraditional students, and in the case of those in Yuma, nearly all work full time. The program enabled the cooperating institutions to arrange their curriculum to include each other's courses and thus expand their programs without hiring extra faculty to teach duplicate courses on each campus. As a result of this program, Northern Arizona University has accepted several agricultural science courses from the University of Arizona as electives for their general education requirements.

Funding
University of Arizona College of Agriculture
Northern Arizona University
Arizona Western College
Central Arizona College

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Society Ready Graduates

Multi-media Classroom Learning Center

Issue

Across the country, post-secondary agricultural education programs are dealing with meeting university minimum enrollment standards, a shortage of secondary school agriculture teachers, and teachers needing resources and technical assistance that will take them into the 21st century.
Teachers in remote areas still need to keep up with the demands and standards of the profession but often cannot attend professional development classes in person.

What has been done

A self-contained multimedia learning station, or "command center" has been developed to deliver distance education workshops to vocational teachers and students across the state. The instructor can capture classroom participation, E-mail, Internet, multimedia, video and 3-D image display. Using the system, one instructor can film a class at the university, producing a high quality video that can then be sent directly to off-site participants. Currently 7 courses are offered through this process.

Impact

The program is reaching a record number of undergraduate and graduate students, and educators in the field of agricultural education. Ninety clients who otherwise would not have been able to continue their education have completed distance education courses so far. The ultimate impact of the program is that educational standards for excellence in teacher and professional education can be met even in rural areas that do not have traditional university facilities.

"If it weren't for the new distance classes, I wouldn't be able to get my Master's in Ag Ed." —Lance Fite, of Safford High School, Safford Arizona

Funding
Arizona Department of Education
University of Arizona Center for Computer and Information Technology
University of Arizona College of Agriculture
UA Department of Agricultural Education—Faculty Salaries
Grant money

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Society Ready Graduates

PHASE Program—Project for Homemakers in Arizona Seeking Employment

Issue

Unemployed single and/or displaced homemakers, and incarcerated women often don't know where to begin in finishing their education, finding a job, and building a career in general. As welfare eligibility tightens, there is a greater need than ever before for strategies to assist people in moving from welfare to work.

What has been done?

The PHASE program (The Project for Homemakers in Arizona Seeking Employment), begun in 1978 in Tucson, Arizona, assists women with job related scholarships and in job placement, including job-seeking skills. The Arizona State Department of Education has funded PHASE along with contributions from businesses and individuals. It is a joint effort between Pima Community College, which often trains the students for immediate employment, legislators who support the program, corporate and individual donors, and the School of Family and Consumer Resources in the College of Agriculture at the University of Arizona.

Impact

PHASE has assisted more than 6,000 single parents, displaced homemakers and incarcerated women in Pima County since 1978. About 15% of its clients continue their studies at the UA, and to date, these students have a 100% graduation success rate. It has become a national model for similar programs throughout the U.S. In 1999 the program assisted incarcerated women in particular, with job skills, nontraditional employment, and basic computer skills.

"If it wasn't for PHASE, I wouldn't be the person I am today." —Kim Turner, previously unemployed single mother of four who with help from PHASE completed her high school GED, an AA degree and a bachelor's degree from The University of Arizona. She recently secured a social service job in Tucson.

"The vast book knowledge and life skills the instructors have combined in the classes, and also the true commitment to helping and caring have made this workshop an inspiration to us inmates, as well as giving us a glimmer of hope and a new lease on life." –incarcerated 1999 PHASE participant

Funding
Arizona State Department of Education, Job Training Partnership Act (JTPA)
Arizona Department of Transportation
Pima Community College
Local businesses
The University of Arizona

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ESCOP Social Sciences Subcommittee
Membership Status as of February 2012 (three-year renewable terms)

Discipline	Northeast	North Central	South	West	1890	At Large
Ag Communication	Ann Dodd Penn State	Beth Forbes Purdue	Dwayne Cartmell Oklahoma State	David Doerfert Texas Tech	Vacant	Tracy Irani (2012) University of Florida
Ag Economics	Stephan Goetz NERDC, Penn State	Larry Leistriz North Dakota State	Chuck Moss (2011) University of Florida	Bruce Weber Oregon State	Ntam Baharanyi Tuskegee University	Matt Fannin (2011) Louisiana State
Ag Education	Travis Park Cornell	Mike Retallick Iowa State University	Jack Elliot (2005) Texas A&M	Brenda Seevers New Mexico State	John Ricketts (2011) Tennessee State	Bobby Torres (2011) University of Arizona
Human Sciences	Daniel Perkins (2011) Penn State	Robin Douthitt (2011) Wisconsin	Marshall Stewart (2011) North Carolina State	Soyeon Shim (2011) University of Arizona	Nina Lyon Bennett U. Maryland Eastern	June Henton Auburn
Rural Sociology	Carolyn Sachs Penn State	Gary Green Wisconsin	Bo Beaulieu SRDC, Mississippi State	Don Albrecht WRDC, Utah State	Dreamal Worthen Florida A&M	Vacant

Subcommittee Chair: Jack Elliot (through 2013 meeting)
Subcommittee Secretary and Chair-Elect: Soyeon Shim (secretary through 2013 meeting, chair through 2015 meeting)
Liaison to the ESCOP Science & Technology Committee: Travis Park

USDA NIFA Liaisons: Pat Hipple, Siva Sureshwaran
ESCOP Liaison: Dan Rossi, Northeastern Regional Association of Experiment Station Directors, Rutgers University
ESCOP Science & Technology Committee Chair: Bill Ravlin, The Ohio State University
ARD Representative: Ntam Baharanyi, Tuskegee University and Alton Thompson, Provost, Delaware State University

Ad Hoc (non-voting) members:
Regional Rural Development Centers: Scott Loveridge, Bo Beaulieu, Stephan Goetz, and Don Albrecht

Ex-Officio Members:
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Chuck Fluharty, Rural Policy Research Institute (RUPRI)
Board on Human Sciences Liaisons: Soyeon Shim, University of Arizona; June Henton (alternate), Auburn University
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R. Thomas (Tom) Van Arsdall, National Coalition for Food and Agricultural Research (National C-FAR)