

CONTENTS

3	INTRODUCTION
4	GOING GLOBAL
8	renewable resources and the environment
12	RURAL ECONOMIC DEVELOPMENT
14	SUSTAINABLE AGRICULTURE
17	COMMUNICATIONS AND TECHNOLOGY
21	CONTEMPORARY YOUTH
25	FAMILIES
27	food safety and quality
30	Water Quality
34	CELEBRATIONS
39	PHOTO CREDITS



Going Global



Food Safety and Quality



Contemporary Youth

Acknowledgments

Janet K. Poley

Director Communication, Information, and Technology

Patricia Calvert

Editor

Judith Armstrong Bowers

Consulting editor

James Wolfe

Managing editor

Tom Willis Rita Rogers

Writers

The Extensian Review, quarterly publication of the Extensian Service, is far Extensian educators throughout the Caaperative Extensian System in county, state, and USDA agencies. The Cooperative Extensian System, a national educational network established through legislation, is a partnership of the U.S. Department of Agriculture, state landgrant universities, and county governments.

Reference to commercial products and services is made with the understanding that no discrimination is intended and no endorsement by the department of agriculture is implied. The Cooperalive Extension System's programs are open to all citizens without regard to race, colar, sex, handicap, religion, age, or national origin.

Clayton Yeutter

Secretary of Agriculture

Charles E. Hess

Assistant Secretary for Science and Education

Myron D. Johnsrud

Administrator Extension Service

IFAS Information

Don W. Poucher

Director

Gary Hermance

Associate director

Ashley Wood

Production coordinator

Audrey Wynne Ralph Knudsen **Graphic design**

INTRODUCTION

CHANGE — in our attitudes, our beliefs, our values.

CHANGE — in our economic and social structures, in our environment.

CHANGE — some of it is predictable, most of it is not!

CHANGE — no longer the exception, fast becoming the norm of our action-packed American lifestyle.

CHANGE — it's exciting...exhausting...exhilarating!

The Berlin Wall comes tumbling down and freedom of speech becomes our global language...Hurricanes and oil spills re-emphasize the fragility of Planet Earth...Our national agenda swings toward concerns of the family, the homeless, the growing gap between "the haves and the have-nots"...We are moving from a "mass society" to a "mosaic society."

GLOBAL CHANGE — NATIONAL CHANGE — LOCAL CHANGE. It's all around us, altering how we work...we communicate...we live.

Collectively, these "change drivers" present serious implications for the Nation and the Cooperative Extension System. Our Extension predecessors were risktakers—and so are we, as we continue to meet the challenges and opportunities of change—and value them as pivotal to our organization's future.

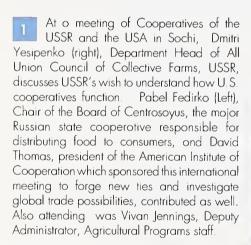
This photographic issue of *Extension Review* presents an impressive panorama of Extension staff across America in 1990, the System's 75th Anniversary Year. Nationwide, we are working on the significant issues of the day, ever responsive to the constant change that typifies today's world.

Our world is changing ...

and so are we!

GOING GLOBAL

Agriculture and rural America must make major readjustments to survive in today's global marketplace. Our vision in Cooperative Extension is to kindle an entrepreneurial fire in rural America that results in capable people operating diversified and competitive businesses in a global marketplace. Our goal is to put in place the technical assistance, education, and training programs and services necessary to help agriculture and rural businesses participate in the global economy and community. Extension is also working to develop an information exchange system, an international marketing package, and a national resource network of other federal agencies, and a series of international awareness forums. From Poland... to the Soviet Union...to Japan...and West Africa, Extension staff are involved in "going global."



New street markets like this one in Warsow, Poland, are springing up daily. In the past, goods were sold only through state stores. Extension Service, USDA, was asked by the Polish government to provide educational expertise on a free market economy.

Tony T. Nakozowa (right), Extension community development progrom coordinator, University of Alasko, Fairbanks, lectures on America's Cooperative Extension System to members of the Extension and Education Division, Agricultural Production Bureau of Japan's Ministry of Agriculture, Forestry, and Fisheries in Tokyo.









Discussing caaperatives while crassing Red Square after passing through the gates of the Kremlin are (far right) David Thomas, president, American Institute af Caaperatian, and (left) Alexander Leukhin, caardinatar of Centrasayus, state caaperative af the USSR.

David Thamas (center), president, American Institute of Caaperation, accepts award fram Saviet harticulturist at the garden of the Friendship Tree in Sachi, USSR. The phatagrapher is Sergei Gurdjian, seniar afficer, Fareign Relations Department, Centrasayus, the majar state caaperative in the USSR. Observing (left of David Thamas) is Alexandr Evdakimav, ecanamist with the All Unian Scientific Research Institute Cansumer Caaperative, USSR, and (an his right) Charles A. Walker, Chancellar, University of Arkansas at Pine Bluff, and (far right) David E.Hahn, Extensian ecanamist, Ohia State University.



6 Going Global

At final debriefing meeting, Extension's team meets with Poland's Vice Minister of Agriculture, Extension, and Science Anna Potok. Team leader Myron D. Johnsrud, Administrator, Extension Service (second from left), provided guidance in analyzing the Polish extension system and making recommendations for its restructuring.

Washington State University (WSU) Animal Physiologist Ray Wright, left, and WSU Animal Scientist Jerry Reeves examine Wagyu cattle purchased last fall in Texas. The scientists are studying the prospect of producing Wagyu beef for the lucrative Japanese market. The Wagyu are a native Japanese breed prized for their highly marbled meat.

At a farmers' market in Sochi, USSR, Vivan Jennings (middle), Deputy Administrator of the Agricultural Programs Staff, ES-USDA, and member of the board of trustees of the American Institute of Cooperation, representing the Cooperative Extension System, talks with a striking Russian miner (left) and Alexandr I. Evdokimov, economist, from the All Union Scientific Research Institute Consumer Cooperative, USSR. The miner began by asking Jennings whether people in America knew about the striking miners in the USSR and was startled to hear about America's media coverage of the event.









- Marlin Johnson (left foreground), Extension agent from Croakston, MN, ond Bob Stauffer, ogriculturol ogent ond Extensian director, Cass County, MN, wark with a local resident in repairing a village water pump in Senegol, West Africo.
- Mike Reed, executive director of the Mike Keed, executive affection of the Center far Agriculture Export Development, University of Kentucky, and Yonchun He, Chinese groduate student in the Potterson School of Diplomacy, review American agricultural praducts to be included in gift baskets exported to the Orient. Reed onticipates the boskets of products will sell well in the Orient during the December giving seosan.



RENEVVABLE RESOURCES AND THE ENVIRONMENT

Americans share a growing concern about the future of our renewable resources and the environment. Conservation and stewardship of these precious resources is a lasting legacy we give our children and future generations. Extension education programs teach communities to conserve fragile wetlands such as the Chesapeake Bay and the Great Lakes Region. From dealing with the oil spill in Alaska...to designing marine science activities for youngsters...to educating producers and consumers on the safe use and application of pesticides...to working with local officials on solid waste management...Extension educators are working to insure our soil, water, air, and wildlife for use and enjoyment now and into the 21st Century.



Extension works with schools and school teochers to teoch youth and adults to understand, appreciate, cooperate with, and utilize natural resources. Here, sixth grade students from Waseca attend an Extension-sponsored conservation day camp at Lake Sokotah State Pork, near Waterville, MN.

4-H'ers working os "lond judges" get serious obout their business during the Notianal Land, Posture, ond Ronge judging Contest in Oklohomo City, OK. Through such programs, Extension encourages young adults ta learn obout and consider scientific and technological coreers.



Renewable Resources and the Environment





- Chris Casady (right), Oregon State University master woadland manager, explains the principles of forest management and land planning to Ed Winter, a woodland owner near Eugene, OR. Extension works to help private landowners clarify their objectives as resource owners and recagnize the economic potential af natural resources.
- On Shuyak Island, AK, Jae Hiller, Extension agent (right) and John French, associate professor of seafood and biachemistry at the University of Alaska, assess damage done by the Exxon oil spill. Extension conducts pragrams like this one in a continuing effort to assure clean water and pratect wildlife.

10 Renewable Resources and the Environment

Extension agent Joe Hiller displays oil scrapings he collected from a Shuyak Island, AK, shoreline damaged by the Exxon oil spill. Hiller and other Extension specialists work to protect characteristic plant and animal species.

Clemson University Extension Assistant Director for Field Operations Dan Ezell (left) and Clemson Extension agent Charlie Davis unload a portion of the 600,000 emergency relief flyers prepared by Clemson's Agricultural Cammunications staff after Hurricane Huga hit.





Renewable Resources and the Environment







- In the woke of Hurricane Hugo, Extension offered help in mony ways. Here, in the U.S. Virgin Islands, Extension Assistant Charles Smith (left) and Extension Program Leader Clinton George (center) give pruning tips on domaged fruit trees to McComely Bully whose farm was hard hit by the storm.
- Dr. Noncy Pywell, University of Florido Cooperative Extension, displays Extension youth materials distributed to educators at the Youth and Environmental Education Conference at USDA in Woshington, DC.
- Clemson University Extension Director Harold McLamb (left) and Douglas Traub look over the wreckage of a grain bin blown a holf mile from Traub's farm by Hurricone Hugo.

RURAL ECONOMIC DEVELOPMENT



The economic vitality of many of rural America's small towns is threatened today. From advising rural residents on starting and managing home-based businesses to developing programs that assist communities, families, and individuals in coping with transition—Extension is there. Our focus also includes developing skilled community leadership and the public decisionmaking process for local officials. Rural economic development is a U.S. Department of Agriculture and a Presidential Initiative.

Ron Bathgate (standing, right), Extension area energy agent, demonstrates the energy benefits of recycling garbage to Marshfield, VT, consumers at the local high school. The rubbish at Bathgate's feet illustrates some of the items that can be recycled.

Extension forestry staff, Oklahoma State University, host a senior citizen tour of Beavers Bend State Park, a major recreational and commercial forested area. Nationwide, Extension is working with citizens and communities to increase natural resource income through recreation development.

David Such (third from left), Extension natural resource and economic development agent, and Ken Bolton (far right), Extension livestock specialist, cooperated with local landfill representatives and the county's solid waste committee to develop a newspaper recycling program. Bolton researched newsprint as bedding for dairy cows because findings showed its lower bacterial count can control mastitis. Here, Dean and Bonnie Jaeger, residents of Jefferson County, WI, examine recent Extension data on the bacterial count in newspaper bedding.













- Carol Dick, a Ford employee (right), points out auto data on a chart to interested youth at Instructional Media Center, Michigan State University, East Lansing. This is part of an Extension career preparation course, "Your Career—A Better Idea," designed so that youth will make informed occupational choices and update their skills for today's exacting job market.
- George Nellessen needed capital to expand production in his store after inventing a unique pizza dough. Extension CRD agent John Leatherman, Portage County, convinced the Village of Rosholt, WI, leaders that helping firms grow was the best way to create jobs. After Rosholt obtained a grant, with Leatherman's help, Nellessen obtained a low-interest loan and expanded his staff to 48 employees—not bad for a village with a population of 550.
- Gary King (right), Director of the Kellogg Foundation's Rural America Program, visits the Colorado Rural Revitalization Project of Idaho Springs with Project Director and Cooperative Extension specialist Larry Dunn (center). The Kellogg Foundation partially funds this Extension Colorado community development program.
- By using computer imaging, landscape architects from the University of Wisconsin Bruce Murray (right) and Charles Law are able to show the storeowners of Stoughton in Dane County their renovation ideas. Working with Extension CRD agents, they want to reflect the original historic ambience on their storefronts as part of a downtown revitalization effort.

SUSTAINABLE AGRICULTURE

Today we define sustainable agriculture as the entire system that grows, processes, markets, and uses food, fiber, and other industrial nonfood products or provides services. Extension's involvement in sustainable agriculture...now a National Institution... is long standing. Complex challenges confront U.S. agriculture in this global age —notably, the need to respond aggressively to worldwide competition to ensure good nutrition and a high-quality food supply, and the need to safeguard natural resources and the environment. Through such educational programs as integrated pest management (IPM), effective farm management, and integrated reproductive management (IRM), Extension staff are working with producers to integrate knowledge from the physical, biological, economic, and social components of sustainable agricultural systems.

Patrick Rogers, Extension master gardener, Oregon State University (left, in wheelchair), checks on the plantings of residents involved in the senior gardening project at the King City Residential Center in Tigard, OR. Extension's "master volunteer" concept allows people to use their enhanced expertise to teach others.

Mitch Gilbert (right), assistant to the manager, Forest Resource Center, Lanesboro, MN, explains Shiitake mushroom growth to visitors during an Extension-sponsored national Shiitake mushroom symposium and trade show. Extension is working with farmers to diversify by growing specialty crops for major domestic markets.

Robert Rouse (left), regional Extension specialist, Wye Research and Education Center, Queenstown, MD, discusses greenhouse data on cantaloupe transplants with local farmer Robert Quidas. Quidas grows the transplants under a special "match-maker" computer program, which matches a crop's grower to a retailer.







Harvesting time at the Indianola Catfish Farm in Mississippi—catfish are funneled into a holding "sock" and then loaded directly into transport trucks. This farm, which benefited from Extension expertise in cost-effective production practices, currently produces up to 6,000 pounds of catfish per acre.

Cornell Cooperative Extension coordinated this farming demonstration in Rose, NY, to spotlight organic vegetable farming. Workers on a front loader (left) and a tractor on Rose Valley Farm, are making compost out of aquatic weeds dredged from Lake Ontario.

Tom Richard, Extension biological engineering specialist, Cornell Cooperative Extension, New York, is center of attention as he analyzes temperature of composting material for oxygen content during organic vegetable field demonstration on the Rose Valley Farm.





16 Sustainable Agriculture

A member of the White Mountain Apache tribe cattle association keeps a tight rein on the herd. For 25 years, Bob Racicot, director of the Navajo County Cooperative Extension Office, Arizona, has worked with Indian cattle growers in Arizona and Montana. He designed a livestock project specifically for the White Mountain Apache cattle association.

Jennings Foskey, an Extension swine research specialist, University of Delaware, weighs a piglet to determine the optimum percentage of lysine in the mother's feed. Lysine promotes a rapid growth rate. This type of Extension research will help to increase swine producers' economic efficiency.

A dairy producer in Morrisville, VT, explains to touring students how silage is stored for winter feed on "Farm Awareness Day." Extension aids such producers so there will be a safe, abundant supply of milk the year 'round.









COMMUNICATIONS AND TECHNOLOGY



To meet the challenges of an expanding, diverse audience, Extension is linking communications networks and exploring new technologies and delivery methods and modes. Desktop publishing, computer networks, satellite videoconferences—these are some of the necessary tools for today's Extension worker. Using new communications technologies, we can readily target our audience and tailor our information and educational message to their needs.

Through innovative audio and video productions, Extension information specialists tailor educational information to meet the public's needs. Candie Garner, New Mexico State University agricultural information specialist, narrates for the soundtrack of a university video production with the aid of Jeff Armstrong, an engineering student.

Cooperative Extension staffs at all levels are using computer networks, electronic mail, satellite communications, and other emerging technologies to target audiences more efficiently and effectively. Here, Boone County, MO, Extension Center Director Don Day works at a computer terminal in his office.

- Jim Schmid (right), Extension crops and soils specialist in Jefferson County, WI, explains features of INFOTEXT to Steve Knobel, customer service representative for Didion, Inc., Grain Merchandisers. INFOTEXT delivers timely weather, markets, news, and Extension tips to Wisconsin homes and industry via television.
- Extension agent Julie Albrecht (left) assists University of Minnesota Food Science and Nutrition faculty member Elaine Ast and a video camera operator from WCCO-TV in Minneapolis in producing a TV spot a price comparison survey to assist consumers when shopping.
- Montgomery County, MD, Extension agent for agricultural science Amy Duffield helps farmer Ed Johnson establish a dairy ration for his 120-cow herd. New communications and electronic technologies remain vital to rapid technology transfer and information sharing.











- Abner Womack, Extension agricultural economist at the University of Missouri-Columbia, speaks to viewers throughout the state about issues behind the 1990 Farm Bill. The University Extension centers are equipped with satellite dishes to receive programs, such as this videoconference, from the campus.
- Communications specialists at Virginia Tech (foreground) participate in an Extension Service, USDA videoconference promoting "Decisions Support Systems," a computer program offering farmers and other agriculturalists a vast array of educational information. Extension Service Director of Communication, Information, and Technology Dr. Janet Poley and Clemson University Cooperative Extension Computer Coordinator Dr. Jerry Lambert conducted the videoconference from the U.S. Department of Agriculture in Washington, DC.
- Cooperative Extension disseminates educational information to the public via all channels of communication, including video and audio. Here, Jeanne Gleason, New Mexico State University Associate Agricultural Editor, interviews Tony Valdez, Extension county agent from northern New Mexico, about the local Extension projects in which he's involved.

20 Communications and Technology

Through advances in videoconferencing, Extension delivers innovative programs to target audiences more rapidly. Here, Minnesota Communication specialist Rich Reeder and 4-H youth development specialist Sherri Wright, along with a panel of Minnesota high school teens, host a videoconference promoting the 4-H Alcohol Decisions Project. The Extension-sponsored project teaches high school teens how to make responsible decisions regarding alcoholic beverages.

Using a national satellite hookup, Dr. Shirley O'Brien, Arizona Cooperative Extension assistant director, and Tom Cordell, Cooperative Extension electronic media specialist, broadcast a program celebrating the state's 75th Extension anniversary.





CONTEMPORARY YOUTH



As the 21st Century approaches, America faces a youth crisis that crosses social, cultural, and economic barriers. Disturbing statistics and trends reveal poverty, poor health and nutrition, child neglect and abuse, teenage pregnancy, substance abuse, and depression and suicide among young people at an all-time high. All American youth are "at risk." Many of the most vulnerable may not develop into healthy, productive adults. In partnership with other agencies and the private sector, Extension educators work with families and communities to insure the future for the next generation of Americans.

Nita Harris (left), a 4-H volunteer and nurse at Coleman junior high school in Washington County, MS, teaches students the facts about unwanted pregnancies and diseases like AIDS. Carolyn Purnell, 4-H youth agent, Washington County (right), also participates in the discussion. Cooperative Extension programs such as these are aimed at developing the ability of youth to make informed decisions.

At an Extension-sponsored workshop in Minneapolis, an agency street worker (right) shares his knowledge of street life with Extension 4-H agents interested in the daily problems area teens encounter.

- Virginia Cooperative Extension's "Strong Families, Competent Kids" program enables thousands of latchkey youngsters across the state to learn skills to help them to be home alone safely. This program began in 1981 in Alexandria, VA, with the help of 160 volunteers.
- At the Warm Springs Indian Reservation, Oregon, a 4-H tribal conservation leader teaches fish net mending to a youth. He also instructs youth about the importance of protecting the environment and native wildlife.
- As part of a church-sponsored self-care program in McKeesport, PA, Extension agent Loretta Anderson introduces an afterschool project, "On My Own And OK." Here, children who have completed the project learn to make friendship bracelets.









- Nicole Franklin of Pittsburgh, PA, is proud of a new T-shirt she earned as participant in "On My Own And OK," a project for 8 to 13-year-old self-care children. The program, jointly funded by Equitable Gas and Penn State, helps assure working parents that their children are safe after school.
- Two young participants in the 4-H Cougars club, who are part of an Extension program for homeless family members in New York City, visit the New Marine Education Center at Barren Island Marina in Brooklyn, NY. The marine center enables them to learn new skills that range from fishing to Japanese fish printing.



24 Contemporary Youth

Hector Valdez, a youth participant in an Extension career preparation course, "Your Future...A Better Idea," at the Instructional Media Center, Michigan State University, enjoys being a video camera operator for a day.

Tara Tingle, ninth-grade honor student, Selbyville Middle School, DE, testifies at public hearing on the Teen Pregnancy Task Force for the House Human Resources Committee at the State Legislature in Dover. Listening to Tingle are task force members (left to right): Extension agent and task force chair Mark Manno, and state representatives Jane Maroney and Katherine Jester. Extension is fostering programs that help youth face critical decisions about such contemporary issues as teen pregnancy and substance abuse.









FAMILIES

Families—they are the fabric of our American way of life. Families—they nurture our young and support our old. Yet, societal and economic change continues to erode basic family structures. Single-person and single-parent families are increasing. Demographics are changing as elderly and poor populations continue to grow. Nationwide, Extension is linking its educational resources with needed community services to strengthen families and enhance their self-sufficiency.

Columbia County, WI, Extension Home Economist Cheryl Stapleton (right) shows a parent how to use her children's playtime as an opportunity to enhance communication skills. The training is part of Extension's "A Child in Your Life" program, which provides low-income parents educational information on child growth and development, discipline, and nutrition.

Theresa Minster (left) of Ithaca, NY, visits the Tomkins County Cornell Cooperative Extension office with daughter Trisha to discuss baby food preparation with Nutrition Aide Joan Brown. Minster is a graduate of Cooperative Extension's Expanded Food and Nutrition Education Program, which teaches expectant teens healthful dietary habits during pregnancy and dietary care for their newborn.

26 Families

Extension specialists develop programs to help consumers choose and prepare healthier foods for themselves and their families.

Clemson University Extension Service
Home Economics specialist Glennis
Couchman (center) reviews a lesson in family
records management with members of the
Christenbyrt family of Oconee County, SC.
Clemson Extension specialists developed the
"File It, Find It," program to improve family
record-keeping and reduce clutter in the home.

An aide with Cornell Cooperative Extension's Expanded Food and Nutrition Education Program (EFNEP) in New York City explains to a teen mother basic nutrition principles to follow in caring for her child. EFNEP's purpose is to teach expectant teens healthful dietary information.







FOOD SAFETY AND QUALITY

Americans enjoy an abundant supply of safe, nutritious food available at relatively low cost. Yet, media and special interest groups continue to question the quality of this food supply. Extension educators are vitally interested in consumer and industry education and risk assessment. Consumers need objective information about food safety and quality so that they can make informed decisions. Extension programs focus on nutritional content and safe preparation of food, microbiological contamination and pesticide residues in foods, and naturally occurring toxicants. Other areas include wellness, diet, and reducing health risks.



3

- Creating your own fruit milkshake is great fun! Youth slice oranges before enjoying a "tasty" lesson in improving their nutrition at the home of an EFNEP (Extension Food And Nutrition Education Program) volunteer in Portland, OR. EFNEP offers food and fitness programs designed to encourage adoption of recommended dietary practices and regular exercise.
- Carolyn Leontos, Extension nutrition specialist, University of Nevada-Reno, displays a tray full of "heart-healthy" cuisine prepared by chefs at Caesars Palace. Because of Leontos' 10-week special diet cooking course for chefs—an Extension nutrition thrust in cooperation with the American Dietetic Association—many Las Vegas hotels and casinos now feature dishes that are healthful as well as gourmet.
- At an Extension diet and nutrition workshop, Sally Foulke, Extension nutrition specialist, Sussex County, DE, informs an interested couple about the differences in the fat content of various brands of margarine. Extension helps consumers understand the relationship between food and health by increasing their knowledge of food composition.

28 Food Safety and Quality

Old eyes and pharmaceutical labels don't always get along! Mary Hamilton (right), who works with Extension's Volunteer Information Providers Program, checks medication schedule for Blanche Thomas, house-bound senior citizen. Extension trains volunteers to work with caregivers to help the bedridden elderly. Extension also trains volunteers like Hamilton so that senior citizens like Thomas can lead healthier, more independent lives.

Elizabeth Uy (left), training specialist, Cooperative Extension, District of Columbia, discusses foodborne illnesses at a workshop with Chinese mothers and their children. Extension food protection professionals believe foodborne diseases pose a greater danger than chemical contamination.







- Consumers can reduce fats in their diets by selecting lean, well-trimmed cuts of meat. Cooperative Extension nutrition specialists provide consumers with tips like this to teach them about diet and nutrition.
- Extension promotes better nutrition in school lunches at Luther Vaughan elementary school in Cherokee County, SC. Pouring mix for cookies is lunch room worker Sarah Edwards (left) while pupils Tana Martin and (center) and Vida Robbs observe the process. Also observing are Ruth Hambright (center) and Extension area agent Martha Phillips (right).
- Computer programs can deliver valuable nutrition information. Extension 4-H Agent Valarie Dyer, Caroline County, MD, assists young people during the annual "Rural Life Day" at the county Extension office. The event is offered to students from elementary school through junior high school.





WATER QUALITY

Water is crucial to our health, industry, commerce, and agriculture. Pollution and depletion of supplies endanger its quality and quantity. First an Extension Initiative, Water Quality is a U.S. Department of Agriculture and Presidential Initiative. Extension's educational focus is educating producers, rural families, consumers, and local officials about protection and wise use of water. High on our agenda are cooperation and collaboration with other government agencies and the private sector. Preserving the nation's water quality is everyone's respansibility.

Bill McGowan, University of Delaware Cooperative Extension assistant water quality technician, uses a cutaway model to show children how water contamination spreads. Identifying water quality as an issue of national concern, Extension sponsors programs to help people understand how public and private actions can influence water quality.

Brady Lee, a 7th-grader in the River Run 4-H Club and participant in 4-H's Youth Volunteer Teacher Program, gives a presentation on water conservation at the Elko Senior Citizens Center. Through 4-H programs, Extension teaches young people life skills which will enable them to be more self-confident and to think independently and interdependently as they accept responsible social roles.











5

- Ed Smith (right), Incline Village Extension agent, discusses the protection of Lake Tahoe's fragile environment, including water quality and wildfire prevention, with Gerald Adams, fire marshal with the North Lake Tahoe, NV, Fire Protection District. Extension agents work to provide a framework for public involvement in the creation of policies, laws, rules, and regulations governing the use and protection of natural resources.
- Derby Walker (left), Sussex County, DE, Extension agent and vegetable specialist, and Dan Cinader, Norflor Construction Company, discuss the direct application of treated sludge to farmland as a soil conditioner and source of nutrients for corn. The construction company is involved in a project to upgrade the Selbyville, DE, waste water treatment plant.
- Hughes County, OK, Extension Director Monroe Sumpter (center) explains caged catfish production practices to youth enrolled in the Oklahoma Catfish Cage Culture Project. Extension sponsors this and similar programs to provide youth with an exciting introduction to science and technology and to encourage them to consider scientific careers.

32 Water Quality

Pesticide Producer and Aerial Applicator Gibb Steele (left) and Washington County, MS, Extension Agent Art Smith inspect a collection site for rinsed pesticide containers. Washington County pesticide applicators participated in a national pilot project to rinse, collect, and recycle used pesticide containers.

A farmer participating in the Lake Manatee Water Quality Demonstration Project in Florida surveys his just planted tomato crop. Next, fertilizer will be injected into the biodegradable plastic-covered mounds to prevent runoff into the nearby watershed. The Lake Manatee Watershed is one of the first designated USDA Water Quality Demonstration Projects managed by Extension Service and the Soil Conservation Service under the President's Water Quality Initiative.







An employee of the Yorktown, VA, Waste Water Treatment Facility collects samples of treated water for testing. Developed with Cooperative Extension recommendations and assistance, the treatment facility is a microbiological aerobic system that does not use chemicals.

CELEBRATIONS

Celebrations are a national pastime. They mark a cornerstone in our collective lives, a time to take stock and reflect on past achievements and future directions. On May 8, 1989, the Cooperative Extension System began its next 75 years as an educational contributor to the life of the nation. Across the country, we celebrated with a national videoconference, open houses, tree plantings, and other commemorations. We reached another important milestone when the 1890 Land Grant Institutions and Tuskegee University celebrated 100 years of research, education, and service to local communities and this country in April 1990. Later in the spring, a different kind of celebration, Earth Day 1990, drew thousands of citizens focused on care for our shared space—the Earth.

Cooperative Extension specialists at the University of the District of Columbia hosted an open house at the campus to celebrate Extension's 75th anniversary. Here, Washington, DC, Extension agent Samuel Robertson (left) demonstrates to an open house participant how to solve minor plumbing problems.

Dr. Joseph J. Joseph guides Pearline Jamison through an eye examination at an Attala County, MS, community health fair. County Extension Agents sponsored the event in celebration of Extension's 75th anniversary.







Former Extension Administrators E.T. York (left), Neil Schaller, and Lloyd Davis join former Assistant Secretary for Science and Education Orville Bentley, Extension Administrator Myron Johnsrud, and former Agricultural Programs Staff secretary Maxine Mears in a cake cutting ceremony to celebrate Extension's 75th anniversary.

Assistant Vice President for University of Maine Cooperative Extension Judith I. Bailey and University of Maine President Dale W. Lick join in a tree planting ceremony at the University to mark Cooperative Extension's 75th anniversary. Extension offices across the country planted trees in recognition of the occasion.



36 Celebrations

University of Maryland Cooperative Extension specialists view a video-conference in which Extension Communication, Information, and Technology Director Dr. Janet Poley (on screen) discusses the new roles for Cooperative Extension in the next 75 years. The videoconference originated from Extension Service, USDA in Washington, DC, on May 8th as part of the videoconference linking Extension offices across the Nation on this 75th anniversary day.

Clayton Yeutter, Secretary of Agriculture, discusses the future of Extension Service with Janet Poley, Extension Communication, Information, and Technology staff and videoconference moderator. The videoconference originated from Extension Service, USDA in Washington, DC, on May 8th as part of the nationwide anniversary celebration.

Secretary of Agriculture Clayton Yeutter (left) and North Carolina A & T State University President Edward Fort plant a dogwood tree near the USDA Administration Building, Washington, DC, to mark the centennial celebration of the 1890 Land Grant Universities.













- U.S. Coast Guard crew from Kodiak, AK, plant Sitka Spruce trees on barren St. Paul Island off the western coast of Alaska in commemoration of Arbor Day and Extension's 75th anniversary. Extension sponsors such programs to increase public involvement with natural resource issues.
- Clemson University Cooperative Extension Dean and Director B.K. "Bud" Webb (left), Secretary of Agriculture Clayton Yeutter, and Clemson University Vice President and Vice Provost for Agriculture and Natural Resources Milton Wise dedicate a new marker where Asbury F. Lever is buried. Cooperative Extension was established as a result of the Smith-Lever Act of 1914.
- A tour group views the dry river bed along the Santa Cruz River walk in Tucson, AZ. University of Arizona Cooperative Extension sponsored the walks in Tucson, Tubac, Patagoniz, and Nogales in celebration of National Earth Day. The walks are also part of an Arizona Extension program, "Partners in Natural Resource Policy," designed to encourage people to become involved in protecting Arizona's environment.

38 Celebrations

Dr. Joyce Payne, director of the Office for Advancement of Public Black Colleges, and Dr. Melvin Walker, president of Georgia's Fort Valley State College, view the college's exhibit during the 1890 Land-Grant Universities centennial celebration at the USDA Administration Building in Washington, DC.

Dr. Simon Ince, University of Arizona hydrologist, traces the flow of the Santa Cruz River on the Earth Day commemorative T-shirt of Richard Harris, Santa Cruz Extension director.

Secretary of Agriculture Clayton Yeutter speaks at the opening of Earth Fest activities on the National Mall in Washington, DC. Earth Fest was part of the week-long celebration of National Earth Day, an annual event aimed at increasing public awareness and involvement in preserving and protecting our natural resources for future generations.







PHOTO CREDITS

Going Global

- 1. Vivan Jennings, ES-USDA, Washington, DC
- 2. Janet Paley, ES-USDA, Washington, DC
- 3. Japanese Extensian, Takya, Japan
- Serqei Gurdjian, Department of Fareign Relations, USSR
- 5. Sergei Gurdjian, Department of Fareign Relations, USSR
- 6. Janet Paley, ES-USDA, Washington, DC
- E. Dennis Brawn, Washington State University, Pullman, WA
- 8. Serqei Gurdjian, Department af Fareign Relatians, USSR
- 9. Warld Visian Ratary, West Africa
- William Mesner, University of Kentucky, Lexington;
 KY

Renewable Resources

- Danald L. Breneman, University of Minnesata, St. Paul, MN
- 2. Phil Ellswarth, Oklahama State University, Stillwater, OK
- 3. Rabert Rast, Oregan State University, Carvallis, OR
- 4. Kenneth Kalladge, Freelancer, Fairbanks, AK
- 5. Kenneth Kalladge, Freelancer, Fairbanks, AK
- Patrick D. Wright, Clemsan, University, Clemsan, SC
- Clarice Clarke, University of the Virgin Islands, St. Craix, VI
- 8. Rita Ragers, ES-USDA, Washington, DC
- 9. Jerry Dyer, Clemson University, Clemson, SC

Rural Economics

- 1. Gearge Rabinsan, Freelancer, Burlingtan, VT
- 2. Phil Ellswarth, Oklahama State University, Stillwater, OK
- Michael Majar, Farmerly at University of Wiscansin, Madisan WI
- Ann Grimes, Farmerly at Michigan State University, East Lansing, MI
- 5. B. Walfgang Haffmann, University of Wiscansin,
- 6. Katherine Timm, Calarada State University, Fart Callins. CO
- B. Walfgong Hoffmann, University of Wiscansin, Madisan, WI

Sustainable Agriculture

- 1. Rabert Rast, Oregan Stote University, Carvallis, OR
- 2. Rabert Rast, Oregan State University, Carvallis, OR

- 3. Narman Pruitt, University of Maryland, Callege Park, MD
- 4. Ralph Ballew, Retired fram Mississippi State University, Mississippi State, MS
- 5. Judy Green, Carnell University, Ithaca, NY
- 6. Judy Green, Carnell University, Ithaca, NY
- 7. Jan McCay , University of Arizana, Tucsan, AZ
- 8. Duane Perry, Freelancer, Newark, DE
- 9. Gearge Rabinsan, Freelancer, Burlington, VT

Communications and Technology

- Victar Espinasa, New Mexica State University, Las Cruces, NM
- James Curley, University of Missauri, Calumbia, MO
- Michael Majar, Farmerly at University of Wiscansin, Madisan, WI
- 4. Danald L. Breneman, University of Minnesota, St. Paul, MN
- 5. William E. Carnahan, Freelancer, Silver Spring, MD
- 6. F. Duane Dailey, University af Missauri, Calumbio,
- 7. Philip R. Breeze, Virginia Tech, Blacksburg, VA
- 8. Victar Espinasa, New Mexica State University, Las Cruces, NM
- Danald L. Breneman, University of Minnesata, St. Paul, MN
- 10. Allen Fertig, University of Arizana, Tucsan, AZ

Contemporary Youth

- Daniel Gardner, Mississippi State University, Mississippi State, MS
- David L. Hansen, University of Minnesota, St. Paul, MN
- 3. Rick Griffiths, Virginia Tech, Blacksburg, VA
- 4. Kenneth Kingsley, Oregan State University, Carvallis, OR
- Steven F. Williams, Pennsylvania State University, University Park, PA
- Steven F. Williams, Pennsylvania State University, University Park, PA
- 7. Michelle Travis, Freelancer, New Yark, NY
- Ann Grimes, Farmerly at Michigan State University, East Lansing, MI
- 9. Duane Perry, Freelancer, Newark, DE

Families

- Michael Majar, Farmerly at University af Wiscansin, Madisan, WI
- 2. Dan Albern, Carnell University
- B. Walfgang Haffmann, University of Wiscansin, Madison, WI

- 4. Patrick D. Wright, Clemson University, Clemson, SC
- 5. Allan Shapira, Freelancer, New Yark, NY

Food Quality and Safety

- . Dave King, Oregan State University, Carvallis, OR
- 2. Thamas Spitz, Freelancer, Rena, NV
- 3. Duane Perry, Freelancer, Newark, DE
- 4. Philip R. Breeze, Virginia Tech, Blacksburg, VA
- William E. Carnahan, Freelancer, Silver Spring, MD
- B. Walfgang Haffmann, University of Wiscansin, Madisan, WI
- 7. Danny McNeill, Clemsan University, Clemsan, SC
- Narman Pruitt, University af Maryland, Callege Park, MD

Water Quality

- . Duane Perry, Freelancer, Newark, DE
- 2. Thamas Spitz, Freelancer, Rena, NV
- 3. Thamas Spitz, Freelancer, Rena, NV
- 4. Duane Perry, Freelancer, Newark, DE
- 5. Phil Ellswarth, Oklahama State University, Stillwater, OK
- Daniel Gardner, Mississippi State University, Mississippi State, MS
- 7. Patricia Calvert, ES-USDA, Washingtan, DC
- 8. Rabert Veltri, Virginia Tech, Blacksburg, VA

Celebrations

- William E. Carnahan, Freelancer, Silver Spring,
 MD
- 2. Ralph Ballew, Retired fram Mississippi State University, Mississippi State, MS
- 3. Marvin Janes, Freelancer, Washington, DC
- 4. Michael Yark, Freelancer, Orana, ME
- Narman Pruitt, University af Maryland, Callege Park, MD
- 6. Marvin Janes, Freelancer, Washington, DC
- 7. Larry Rana, OPA-USDA, Washington, DC
- 8. Kenneth Kalladge, Freelancer, Fairbanks, AK
- 9. Danny McNeill, Clemsan University, Clemsan, SC
- 10. Allen Fertig, University of Arizana, Tucsan, AZ
- 11. Marvin Janes, Freelancer, Washington, DC
- 12. Larry Rana, OPA-USDA, Washingtan, DC
- Allen Fertig, University of Arizana, Tucsan, AZ

