

## 1996–2005

### *A Fresh Focus on Health and the Environment*

In a new era of focus on healthful eating and exercise, combined with worldwide progress in medical research, Americans began to notice that their waistlines were expanding and diseases such as diabetes were on the rise, even among the young. The new abundant lifestyle enjoyed by more Texans during this decade began to have its own physical manifestations. By the close of the 20th century, fully 27 percent of Texans were obese. Texas now ranked eighth in the nation as the most physically inactive state, 15th in overall obesity, and sixth in the number of overweight children. This meant that Texans were becoming less healthy and increasingly susceptible to chronic illness. The Texas Agricultural Experiment Station and the Texas Agricultural Extension Service, with College of Agriculture and Life Sciences nutrition researchers, began working to improve eating habits and keep Texans fit. In 1996 the Extension Service (renamed Texas Cooperative Extension in 2001) introduced Walk Across Texas!® — a walking program designed to help Texans establish regular fitness habits.

Extension also inaugurated a nutrition education program, Better Living for Texans, that teaches low-income families how to eat well on a budget. And Do Well, Be Well with Diabetes™ and its companion program, Cooking Well with Diabetes, were created to help people with diabetes and those who care for them to better manage the disease. The Junior Master Gardener® program was created in 1999 to teach elementary and middle school students about gardening and help provide homegrown vegetables for their families.



Working in partnership to manage forest pests, the Forest Pest Management Cooperative (FPMC) is established. As of 2012, three forest industries, four timber investment management organizations, Texas Forest Service, and the USDA Forest Service Forest Health Protection make up the FPMC.

1996

1996

The Extension Service establishes the Walk Across Texas!® health and fitness program. During 2010, nearly 50,000 adults and children from 187 Texas counties participated in the program.





**1996**

The Extension Service initiates the Better Living for Texans (BLT) nutrition education program aimed at teaching low-income Texans how to eat well on a budget. The program reported 1,009,411 educational contacts in 2010.

The Texas legislature funds the Texas Imported Fire Ant Research and Management Project. Fire ants are estimated to cause \$1.2 billion in damages annually to urban and rural areas of Texas. As of 2010, research efforts in Texas AgriLife Research as well as educational outreach by the Texas AgriLife Extension Service had reduced annual damages by some \$300 million.

**1997**



**1997**

George H. W. Bush Presidential Library and Museum opens on the Texas A&M University campus.

In addition to the new focus on personal health, the College, the Experiment Station, and Texas Cooperative Extension put a greater emphasis on the environment, in keeping with a renewed environmental movement worldwide. The Texas Water Resources Institute expanded its scope to formally include Extension community education, and rainwater harvesting became one of its urban “green” programs. The Department of Wildlife and Fisheries Sciences, with Extension Wildlife Services, investigated human encounters with feral hogs in the urban environment and issued guidelines for overseeing and managing wild animals that found their way into cities and towns.

In the wake of the September 11, 2001, terrorist attacks on New York City and Washington, D.C., the Texas A&M University System Board of Regents established the Institute for Countermeasures against Agricultural Bioterrorism to prevent and respond to intentional attacks on the food and agriculture system. In 2002, the Texas Veterinary Medical Diagnostic Laboratory (TVMDL) was chosen by the U.S. Department of Agriculture as one of 12 core state/university diagnostic laboratories to be part of the National Animal Health Laboratory Network, which monitors and tests for high-priority animal and zoonotic diseases that threaten agriculture and the public health throughout the United States. Two years later, TVMDL’s College Station headquarters opened its new Biosafety Level 3 laboratories, equipped to diagnose some of the most deadly and contagious animal diseases.

The Texas Forest Service, now the state’s premier disaster-response agency, was called on to lead the recovery effort following the disintegration of space shuttle *Columbia* in February 2003. In 2005, the Forest Service and Extension responded with relief efforts following Hurricanes Katrina and Rita, which devastated much of the Gulf Coast. And in 2005 and 2006, the Forest Service devoted about three-fourths of its workforce to firefighting during a then record-breaking fire season of 515 consecutive days, which included the massive East Amarillo Complex fire.



**ABOVE:** Travis Mays, TVMDL veterinary toxicologist, loads samples into a graphite furnace atomic absorption spectrophotometer, which measures lead, arsenic, and selenium in blood, serum, or liver samples.

**RIGHT:** The Animal Science Teaching, Research, and Extension Center, built in 1997, was dedicated to former department head Dr. O. D. Butler in 2004.

**CENTER AND FAR RIGHT:** Animal science researchers Dr. Guoyao Wu and Dr. Tom Spencer study metabolism and reproduction in pigs and sheep.

Through the work of Charles A. “Butch” Taylor, Jr., at the Research and Extension Center at San Angelo, the Edwards Plateau Prescribed Burning Association is established, and the concept spreads throughout Texas and to surrounding states. The EPPBA won environmental and land stewardship awards in 2002 and 2010.

**1997**



Scott Shafer, professor in the Department of Recreation, Park and Tourism Sciences, designs and implements the Community Parks Program, in which undergraduate students help Texas communities develop parks, including master planning, design concept plans, and preparation of trail grant applications. Cities benefiting from this program include Fort Worth, Hearne, Brenham, Rockdale, College Station, Bryan, and Waco.

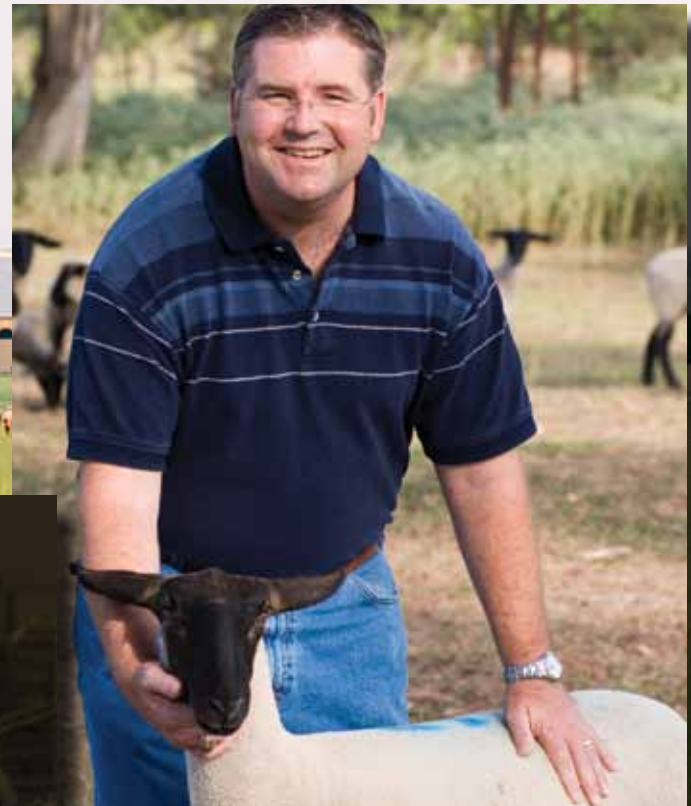
**1997**



**1997**

The Department of Agricultural Economics establishes the Tyrus R. Timm Honor Registry of distinguished former graduates in honor of Professor “Ty” Timm, who served as department head from 1953 to 1973 and had a 38-year career with the department.





The Texas Agricultural Extension Service, collaborating with agencies in New Mexico and Arizona, begins a rainwater harvesting education program to complement the Master Gardener program. In addition to the Master Gardener Rainwater Specialist certification, the new program also trains landscape professionals and livestock and wildlife managers in using rainwater as a source of irrigation water and drinking water for animals.

**1998**



### January 1998

There are 54 county Texas Master Gardener<sup>SM</sup> programs, and more than 4,000 individuals have achieved Master Gardener certification.



### 1998

Ronald Kaiser, professor in the Department of Recreation, Park and Tourism Sciences, begins serving as the principal consultant on one of Texas's most significant water planning laws, Senate Bill 1. The law requires regional water planning groups to prepare plans that lay the groundwork for decisions about water conservation, drought response, and meeting future water supply needs.



TVMDL's pathology section is the first to recognize that unusual liver lesions in dogs are caused by aflatoxin contamination of corn-based dog food. Its toxicology section is heavily involved in helping to control the large aflatoxicosis outbreak in Texas and throughout the United States.

**1998**



**1998**

Richard Frederiksen is awarded the prestigious Jakob Eriksson Prize for Plant Pathology for his lifetime of work on the economically devastating downy mildew of Texas sorghum and the development of a successful management program by combining host resistance with fungicide applications.



The BetaSweet™ maroon carrot, developed by Leonard Pike, founding director of the Vegetable and Fruit Improvement Center in the Department of Horticultural Sciences and the Texas Agricultural Experiment Station, is made available commercially. Pike began breeding the carrot in 1989. It contains about 40 percent more beta-carotene and more anthocyanin than conventional carrots; these antioxidants are known to help prevent cancer.

**1998**





LEFT: Hurricane damage on a Southeast Texas ranch

ABOVE: Extension develops programs to control feral hogs as they migrate from rural to urban areas. A herd (sounder) of feral hogs gathers on an East Texas roadway.



## Açaí Berry Products: From Lab to Home

In 2002, food science and nutrition professors began working with private industry to develop the Amazonian açaí palm berry for use by the food, dietary supplement, and cosmetic industries. From 2004 to 2006, commercial-scale processes were developed to remove fiber and lipid to create an optically clear açaí product that is now the preferred ingredient for premium juices. From 2006 to 2009, a 100 percent açaí oil was commercialized, and the technology was licensed from Texas A&M University to private industry. In 2010 a reduced-sugar açaí juice concentrate was developed in collaboration with private industry that concentrates bioactive compounds that may provide açaí with its potential dietary health benefits.

The Junior Master Gardener® Program, established and trademarked by the Texas Agricultural Extension Service, is so popular that it has spread nationally and internationally.

Extension horticulturist

Lisa Whittlesey serves as national coordinator for the program.

**1999**



The Center for Southern Crop Improvement is named for Norman E. Borlaug.

**1999**



**1999**

The Texas legislature makes the Texas Forest Service responsible for determining when drought conditions exist so that counties can establish outdoor burning bans. The legislature also establishes the Prescribed Burning Board to develop state burn standards and a certified prescribed burn manager program, with TFS responsible for training.



In 1998, the agriculture divisions at five Texas A&M University System universities — Prairie View A&M, Tarleton State, Texas A&M-Commerce, Texas A&M-Kingsville, and West Texas A&M — joined the Agriculture Program under Vice Chancellor and Dean Edward Hiler, coming aboard with the College of Agriculture and Life Sciences, the Experiment Station, Extension, TVMDL, and the Forest Service. By 2001, when the College celebrated its 90th anniversary, more than 5,000 undergraduate and 1,100 graduate students made it the largest college of agriculture in the United States. It awarded approximately 1,300 baccalaureate and 200 graduate degrees the previous year, in 14 academic departments, with 26 major fields of study. And its students received many academic awards and more than \$300,000 in scholarships annually.

Experiment Station researchers and Extension educators made noteworthy improvements in cotton, beef, poultry, equine, sheep and goats, and vegetable production, among other agribusinesses, all of which benefited from specific Agriculture Program advancements in this decade of transition from the 20th to the 21st century.



*LEFT AND ABOVE: Nutrition and Food Science and Wildlife and Fisheries Sciences departments offer students diverse career opportunities.*



The Mapping Sciences Laboratory changes its name to the Spatial Sciences Laboratory. Since its founding in 1994, interdisciplinary faculty and research scientists have used the lab for research and teaching activities in environmental and resource management issues on a wide scale, using GIS, Remote Sensing, and GPS mapping tools. Students can earn a degree in spatial sciences through the Department of Ecosystem Science and Management, with joint administration by the College of Geosciences.

**1999**



The Texas Higher Education Coordinating Board authorizes the Joint Doctor of Education degree in Agricultural Education at a Distance, better known as Doc@Distance. It is conducted by the Department of Agricultural Leadership, Education, and Communications and its counterpart at Texas Tech University. This one-of-a-kind program allows professionals to earn their degree online.

**April 2000**



**1999**

The Texas A&M Women's Equestrian Team, which began in the Department of Animal Science, is elevated to varsity status and is jointly managed by the Athletic Department.



## Junior Master Gardener® Grows Good Kids

The Junior Master Gardener (JMG) Program was created, trademarked, and launched in 1999 by the Texas Agricultural Extension Service and introduced at the International Master Gardener<sup>SM</sup> Conference in San Antonio. Extension program specialist for horticultural sciences Lisa Whittlesey helped to create JMG and serves as national coordinator for the program. JMG is an international youth gardening 4-H program that enrolls more than 200,000 Texas children annually (representing one-fifth of Texas Extension 4-H annual enrollment) through over 300 registered groups. The program is implemented through the county Extension network to public, private, and home school programs; traditional community-based 4-H clubs; Scout groups; botanical gardens and arboretums; children's museums; and libraries and in after-school programs in partnership with adult Master Gardener volunteers. The JMG program is designed for children in grades 3–5 (Level 1) and 6–8 (Level 2). It introduces children to plant growth and nutrition and provides them with opportunities to learn about leadership, responsibility, and community involvement through a colorful, fun, and hands-on curriculum. Ongoing research through university partnerships is quantifying significant positive impacts of the program on children as it has expanded beyond Texas, with JMG groups in all 50 states and 36 land-grant universities as registered or licensed partners. Internationally, JMG has partnered with the Borlaug Institute for International Agriculture at Texas A&M to conduct volunteer and teacher training programs in Honduras, Guatemala, and other Latin American countries. The program is also active in Canada and South Korea.



**2000**

The 'Texas Maroon' bluebonnet (later marketed as 'Alamo Fire') is released after a lengthy selection effort led by Jerry Parsons in the Department of Horticultural Sciences. The Texas state wildflower has also been released in other colors, including 'Abbott Pink' (1993), 'Barbara Bush' lavender (1994), and 'Lady Bird Johnson Royal Blue' (2011; ).

A food industry task force convenes to develop a plan for enhancing the food science and human nutrition programs at Texas A&M. Over the next year and a half, a 16-member implementation team and a 15-member faculty advisory committee begin developing a formal proposal for the new Department of Nutrition and Food Science.

**Spring 2001**



**2001**

The Department of Wildlife and Fisheries Sciences begins research and teaching initiatives to establish guidelines for urban wildlife oversight and management. The department has become a national leader in addressing these conflicts, and graduates are prepared for careers as urban wildlife biologists.



**ABOVE:** Lake Raven, Huntsville State Park

**RIGHT:** Brazos County Extension Family and Consumer Sciences agent Lupe Landeros gives a presentation on changing families. She now serves as Extension Director for Bexar County.



The Texas Water Resources Institute is expanded to formally include Extension work. Organized as the Water Research and Information Center in 1952, TWRI became an institute in 1964.

**2001**



**2001**

The 77th Texas Legislature provides funding to build TVMDL's Poultry Diagnostic Laboratory at Center, Texas, on the site of a poultry diagnostic lab built in the early 1950s with East Texas poultry industry funds and operated by the Experiment Station until 1991.

The Texas Agricultural Extension Service is officially renamed Texas Cooperative Extension to better reflect the way it operates: through cooperation with individuals, communities, and agricultural producers.

**2001**





## Avian Influenza Outbreak: Heroic Response

In February 2004, six broiler chickens from a commercial poultry flock in south central Texas were submitted to the Texas Veterinary Medical Diagnostic Laboratory's Poultry Diagnostic Lab in Gonzales after showing respiratory symptoms. The farm sold chickens to Houston live-bird markets. The cause of the illness was quickly identified as a highly pathogenic H5N2 avian influenza virus (not the H5N1 strain that can infect humans) with relatively mild symptoms in infected birds. It was the first time since 1983–84 that a highly pathogenic avian influenza virus had been reported in

the United States. TVMDL in College Station was able to help the Texas Animal Health Commission and the USDA Animal and Plant Health Inspection Service pinpoint the location of the outbreak in less than 18 hours. The federal and state agencies conducted a surveillance program to regain highly pathogenic avian influenza-free status for Texas and the United States.

TVMDL was inundated with poultry blood and other samples for testing from farms throughout the region. The molecular diagnostics team worked 12-hour days, ensuring that protocol was followed to prevent misdiagnosis, which could shut down poultry farms and cause economic damage to the industry. It received up to 500 samples per day, with a required 24-hour turnaround. The USDA's National Veterinary Services Laboratory provided some additional equipment and supplies and suggested improvements for processing the samples more quickly. The TVMDL diagnosticians buried themselves in the work and kept up the pace. When no additional positive flocks were found, the outbreak was declared over by April 1. Because it was diagnosed so quickly and officials reacted immediately to control the outbreak, the virus did not spread. The early detection and subsequent surveillance saved Texas poultry farms millions of dollars in potential losses.



The Board of Regents establishes the Institute for Countermeasures against Agricultural Bioterrorism to prevent and respond to intentional attacks on the food and agricultural system, as well as the accidental introduction of biological disease agents. It also establishes the Institute for Plant Genomics and Biotechnology.

2001

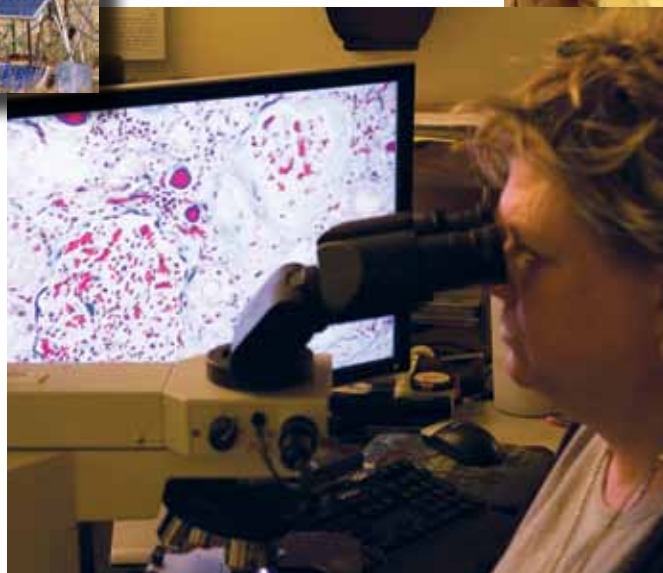


2001

The Texas Forest Service begins a detailed statewide survey of fire departments to determine their baseline capacity and allow local departments to identify and prioritize their equipment and training needs. Based on this information, the Texas legislature establishes the Texas Rural Volunteer Fire Department Assistance Program, administered by the Forest Service. Approximately \$23 million is distributed annually under the program.

2001

The Beef Quality Assurance Program is broadened to include the Texas Beef Quality Producer Program, facilitating instruction in beef quality credit training by Extension specialists with both the Texas Beef Council and the Texas and Southwestern Cattle Raisers Association.



**ABOVE:** Experiment Station technicians adjust micrometeorological sensors at weather stations located on rangeland. Sensors measured the ecosystem's energy balance and water evaporation as well as carbon balance, which is critical in making environmentally sound land-use policy decisions.

**CENTER:** Dr. Barbara Lewis, TVMDL diagnostic pathologist, performs a histopathologic examination of a dog kidney.

**TOP RIGHT:** Poultry is one of the largest agricultural commodities in Texas. These Cornish Rock chicks are boxed and ready to ship to a buyer.

**BOTTOM RIGHT:** Do Well, Be Well with Diabetes™ has been one of Extension's most successful programs.

TVMDL is selected by the U.S. Department of Agriculture as one of 12 core state/university diagnostic laboratories to be part of the National Animal Health Laboratory Network (NAHLN), a partnership between the American Association of Veterinary Laboratory Diagnosticians and the USDA. Funding is focused on surveillance and diagnostic testing of eight high-consequence animal diseases.

**May 2002**



Do Well, Be Well with Diabetes™, a low-cost class series developed by Texas Cooperative Extension health professionals to help Texans manage type 2 diabetes, is pilot-tested in 12 counties. The program was conducted in 77 counties by 2010.

**2002**



**2002**

The American Society of Agricultural and Biological Engineers names the cotton module builder, designed by a Department of Biological and Agricultural Engineering team led by Professor Lambert H. Wilkes, as a historical landmark of agricultural engineering and one of the top three inventions in mechanized cotton production.





## Space Shuttle Down: Texas Forest Service Responds

On February 1, 2003, space shuttle *Columbia* disintegrated in the skies above Texas as it reentered Earth's atmosphere, killing all seven astronauts on board and scattering debris over 2.3 million acres in eastern Texas and western Louisiana. NASA, the Federal Emergency Management Agency, and Texas Governor Rick Perry called on the Texas Forest Service, with its long history of emergency response and disaster management, to lead the ground and air recovery effort after the EPA cleared public areas of hazardous debris. The massive operation included coordinating some 15,000 volunteers, along with 450 local, state, and federal agencies. More than 280 of the Texas Forest Service's 354 employees directly aided the recovery. Battling sleet and bitter winds, heavy brush, wild hogs, snakes, and muddy bogs, the searchers, along with U.S. Navy divers, recovered remains from all of the astronauts within the first 12 days and found 38 percent of the total reentry weight of the space shuttle — almost twice the amount expected — by the time the search ended on April 27. The data recorder was found, along with many vital structural components that helped accident investigators determine that the crash was caused by foam debris that broke off during takeoff and damaged *Columbia*'s left wing, leaving it weak during reentry. NASA expressed its gratitude to the Texas Forest Service, calling it the key player in the recovery effort.



**2002**

Department of Recreation, Park and Tourism Sciences professor John Crompton begins working closely with the Texas Parks and Wildlife Department to address serious problems related to infrastructure and support of Texas state parks, then ranked 49th among the 50 states in terms of financial support. Through an extensive research and development project that continued through 2007, support for state parks increased from \$120 million in 2002 to \$300 million by 2009.

The Texas Animal and Wildlife Damage Management Service is transferred from state administration to Texas Cooperative Extension and renamed Wildlife Services. This USDA-Extension partnership provides many important wildlife services, such as rabies bait drops and the control of feral hogs.

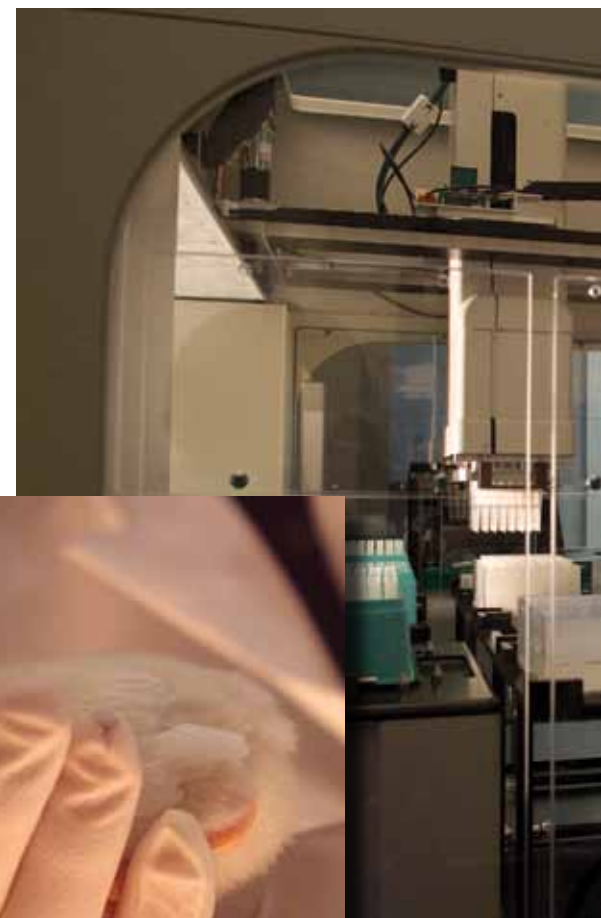
**2003**



**2003**

The Texas A&M Dairy Center is closed after 50 years in operation.





Benchmark studies of cloned pigs in the Department of Animal Science show that clones are not exact replicas of the original animal, but vary in personality and physical characteristics.

**2003**



Gov. Rick Perry approves the U.S. Forest Service's Forest Legacy Program and names the Texas Forest Service as the lead agency. The Forest Service begins statewide implementation of the Forest Inventory and Analysis Program.

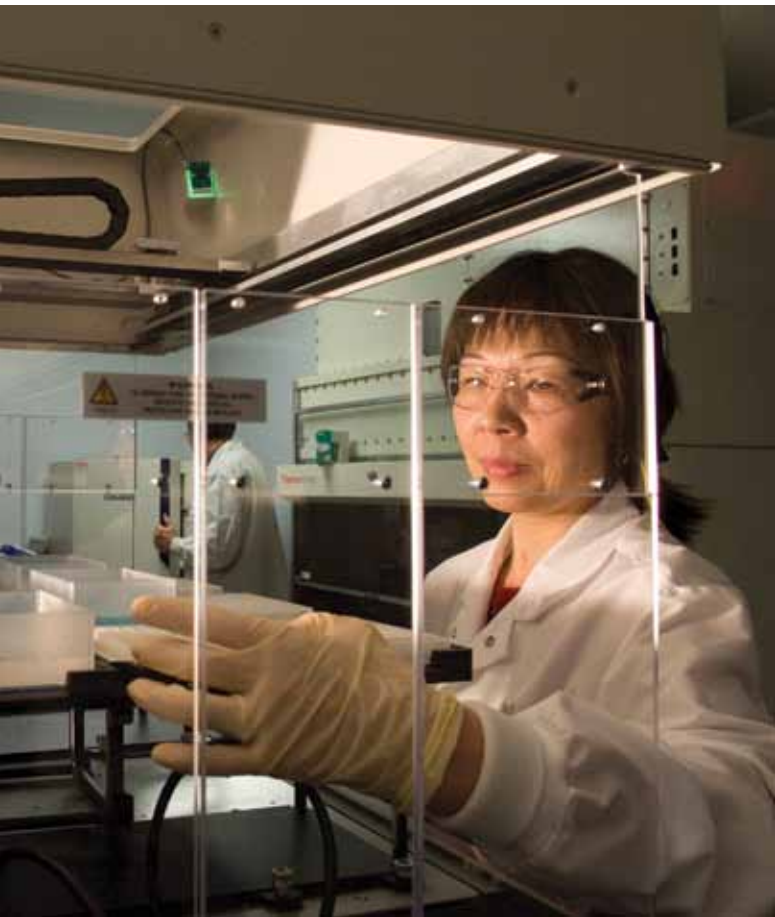
**2004**



**2004**

New molecular genetics technology is adopted for routine use by TVMDL, enabling the laboratory to conduct follow-up testing for a high-pathogenic avian influenza virus outbreak in the greater Gonzales area, where the large poultry industry is vulnerable.





LEFT: P. J. Ellison-Kalil, owner of Ellison's Greenhouses in Brenham, with her parents, Jim and Ellen Ellison, endowed the Ellison Chair in International Floriculture in the Department of Horticultural Sciences. She was also a member of Extension's Texas Agricultural Lifetime Leadership (TALL) program.

ABOVE: Feng Sun, TVMDL molecular microbiologist, loads tips plates into a Tecan instrument, which extracts DNA from clinical samples for further diagnostic testing.



## Earth-Kind® Environmental Stewardship Program

Texas AgriLife Extension Service horticulture specialists and agents established and trademarked the Earth-Kind Environmental Stewardship program for Texas and the nation in 2004. The Earth-Kind program uses research-proven techniques and plants to provide maximum garden and landscape enjoyment while preserving and protecting the environment. It encourages landscape water conservation, reduction of fertilizer and pesticide use, landscaping for energy conservation, and reduction of landscape wastes entering landfills. The program combines the best of organic and traditional gardening and landscaping principles to create a horticultural system based on real-world effectiveness and environmental responsibility. Over 100 roses were evaluated to determine the "toughest of the tough" varieties for Texas; 25 were selected as Earth-Kind roses.



An addition to TVMDL's College Station facility includes two 800-square-foot Biosafety Level 3 laboratories, designed to diagnose some of the most contagious and deadly animal diseases, including classical swine fever and foot and mouth disease. The labs require specialized design and construction and stringent procedures to prevent disease organisms from escaping into the environment. The following year, TVMDL acquired state-of-the-art robotic equipment for more rapid diagnosis.

2004

2004

The Ellison Chair in International Floriculture is created in the Department of Horticultural Sciences to advance the floriculture industry on a national and international scale by combining academic strength with industry support and collaboration. The inaugural chair holder is Edward Hiler, former vice chancellor and dean.



2004

The USDA establishes the Borlaug Fellows Program, through which Texas A&M and collaborating universities provide short-term training in agricultural issues and practices to researchers, policy makers, and university faculty from developing countries.



*ABOVE: Dr. Kevin Crosby inspects mild Habanero plants, Weslaco Center, 2005.*

*RIGHT: Becker Vineyards, located near Stonewall in the Texas Hill Country, is one of the state's many vineyards benefiting from an Experiment Station and Extension program to combat Pierce's disease.*



The Department of Nutrition and Food Science is formally established, even though food science and nutrition degree programs had been offered at Texas A&M through graduate faculties for several decades. College of Agriculture and Life Sciences professors have been key players in food science and technology programs, nationally and internationally, since the 1970s.

**January 2005**



The Soil and Crop Sciences faculty, in cooperation with the Experiment Station and Extension, mark their contribution to the increase in the five-year average yield of upland cotton from 266 pounds of lint per acre between 1953 and 1957 to 707 pounds per acre for the 2005–09 period.

**2005**



**Spring 2005**

After a five-year breeding program by scientists at the Research and Extension Center at Weslaco, the 'TAM Mild Habanero' pepper becomes available to consumers. This low-capsaicin pepper makes an excellent base for a mild salsa, and capsaicin can be added to adjust the heat level to please every palate.





## Walk Across Texas!® Helping Texans Get Fit

For eight weeks each spring, teams of eight from all walks of life log 830 miles — the distance across Texas — in actual steps or in other exercise equivalents as they participate in a Texas A&M AgriLife Extension Service program called Walk Across Texas! County Extension agents form local task forces to organize the kickoff event. Participation has increased each year, to 42,835 in 2010, with each individual logging about 25 miles per year over the eight-week period. Walk Across Texas! helps Texans establish the habit of regular physical activity. Participants on average reported less stress and lower health-care costs for the year. Many more Texans not actively enrolled in the program also got the message: Exercise is essential. Walk Across Texas! is a simple, virtually cost-free program, and it works!



Elsa Murano, professor and food-safety expert who taught at Texas A&M before serving as USDA Under Secretary for Food Safety under President George W. Bush, becomes the first female and first Hispanic vice chancellor and dean for Agriculture and Life Sciences and director of the Experiment Station. She is appointed president of Texas A&M University, beginning January 3, 2008.

**2005**



**2005**

The Texas Forest Service's Lone Star Incident Management Team swings into full disaster-relief mode as Hurricanes Katrina and Rita prepare to make landfall. The team coordinates the initial disaster management and recovery, working with the Experiment Station and Extension in their relief roles.



**2005–2006**

During a record-breaking fire season of 515 consecutive days, 277 of the Texas Forest Service's 375 employees work nearly 149,000 hours of emergency response overtime, the manpower equivalent of 71 additional full-time employees.