

Urban Solutions Center

The Texas A&M University System



The Urban Solutions Center @ Dallas is a gateway to science, researchers and Extension educators across the U.S. The Center serves all of urban Texas, and the Dallas-Arlington-Fort Worth metropolitan area in particular. Center research and Extension education activities are focused on *urban needs* in planning and implementing strategies for convenience, quality of life, economic attractiveness, and sustainable stewardship of natural resources.

What is our mission? The Center's mission is to recognize needs and opportunities, transfer finished technologies and information, and achieve outcomes that are recognized and valued by the Dallas-Fort Worth region and urban citizens. In pursuit of its mission, the *Center's current activities* are focused mostly on producing science-based technologies, information and Extension educational programs, and managing and conserving urban natural resources.

What do we do? Center scientists and Extension specialist develop and commercialize resource-efficient turf and ornamental plants; develop and transfer science-based solutions to, heat island effects, water needs within urban settings; and reconstruct incomplete or contaminated urban soils. The Center is expanding its capacities to include biological and agricultural engineering, natural resource management, urban wildlife management, and park and recreation sciences.

What have Center scientists and educators done? In 2005, the Center began adjusting its appearance, productivity, financing and culture for an urban mission. Facilities are being renovated, and Center administration has implemented the Dallas Model[®] for funding and managing Center science and programs. Priorities include strengthening collaborative linkages with leaders of Metroplex municipalities, counties, local institutions and non-governmental organizations (NGOs); building productive partnerships with private and academic sectors, state and federal government agencies; and effective use of Center land resources.

The Center has a long history of producing science-based information and technologies. Finished products include soil improvement and management technologies, including composting, and producing and managing unique landscape plants. Center scientists have produced; more than 23 commercialized turfgrass varieties used in multiple sports stadia, golf courses, recreational public parks and industrial and residential landscapes; multiple turfgrasses and plants (ornamentals, natives, crepe myrtles, annuals, perennials and EarthKind) tolerant to pests and extreme environments; such as soils and water with very high salt contents and drought tolerance.

Rapid growth of the nation's urban areas is producing greater need for research and education programs on urban issues. Working within the Dallas Model[®] which organizes and funds Center activities using good business principles, the Urban Solutions Center is collaborating with regional organizations and institutions, others in the Texas Agricultural Experiment Station and Texas Cooperative Extension, and federal and state agencies to solve urban natural resource challenges. The Center is uniquely positioned to provide urban Texas and America with new and improved ideas and products for convenience, quality of life, and stewardship of natural resources.

The Urban Solutions Center @ Dallas is located on Coit Road just north of West Campbell Road, and south of George W. Bush Tollway. The Center houses administrators, scientists and Extension specialist of the Texas Agricultural Experiment Station and Texas Cooperative Extension, agencies of The Texas A&M University System.

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A Gateway to Science and Extension Education

Best Management Practices (BMPs) – developing and transferring information for BMPs for insects and diseases, soils, stream restoration, rainwater capture, stormwater management, bioretention methodologies, biofiltration to improve contaminated water, etc.

Water Conservation – capturing and utilizing rainwater, using alternative sources of water such as saline aquifers, mitigation of stormwater and urban runoff, design and use of drainage and irrigation systems and facilities, etc.

Disturbed Land Reclamation - converting landfill sites to areas of public uses (e.g., parks and recreational areas), restoring eroded stream banks, preventing sedimentation of lakes, waste disposal and recycling, etc.

Soils Improvement – creating and using compost, improving soils for moisture management, improving soils in areas of new construction, etc.

Urban Wildlife – developing and transferring information on effective management practices for birds, fish, small vertebrates, and invertebrates (e.g., pests of man and companion animals, vectors of disease, homes and other buildings, etc.).

Plant Improvement – creating, producing and managing turf and ornamentals with resistance or tolerance to insects, diseases, and harsh or specialized environments (e.g., heavy-use athletic fields, non potable water or salty waters, disturbed soils or habitats, hot-dry environments, recreation and park areas, areas with reduced or no sunlight, etc.).

Plant Management – eliminating, preventing and managing invasive plants; aquatic or terrestrial weeds; turf and ornamentals; preventing or managing insect pests and plant diseases, etc.

Non Point Source Pollution Management – developing and transferring BMP information on stormwater and urban runoff, landscapes, road rights-of-way, agricultural lands, etc.

Energy Conservation – developing and using plants for reducing energy use (e.g., “green roofs,” use of shade from ornamentals, elimination of “heat islands”, etc.)

Public space planning and implementation – developing and transferring information for reclaimed landfills, recreational use of local streams and waterways, ornamentals, turfs and “green” designs for public parks and recreational facilities, etc.