THE DAVEY INSTITUTE:
A Legacy of Innovation
John Davey, the father of tree surgery, founded The Davey Tree Expert Company in 1880 to provide arboricultural and horticultural services. He viewed tree care as a science, and the original business plan included a technical development and research department to bring the leading science of the day to client properties via field service teams. This vision is woven into the very fabric of our company with a commitment to innovation that still drives the next generation of plant health care strategies as well as new business opportunities for Davey and our partners.

Davey's scientific approach to tree care through research and education helped Davey earn 14 patents between 1900 and 1920. In 1909, Davey founded the Davey Institute of Tree Surgery (D.I.T.S.). Original classes were an industry first, modeled on a college curriculum-based program. The extensive training focusing on personal growth, scientific knowledge and advanced tree climbing skills. The program still runs to date as a four-week course held at the company headquarters, in Kent, Ohio every February.
The Institute strives to lead the Davey Company in scientific rigor and advancement, ensuring that we provide the highest quality of service in our industry.

The Institute’s integrated teams are organized to support, prioritize and align the needs of our expanding, multi-disciplined organization:

**PRACTICAL PLANT CARE**

Company founder John Davey believed in addressing the health and maintenance of trees as a practical way to preserve our natural resources. Over the years, we have added lawn and landscape care to our areas of expertise. Davey Institute scientists work in our industry-leading laboratories and diagnostic facilities to identify materials and treatment programs to improve plant health and control the impacts of insects, diseases and environmental stresses.

**CONTRACT & FUNDED RESEARCH**

Scientists at The Davey Institute collaborate with governmental agencies, academic institutions, private companies and non-profits to conduct research on the best practices to better manage our community forests and combat threats they face. The Davey Institute develops leading practices, products and technologies for the tree, landscape and vegetation management sectors of our industry. These research products include biomechanical analyses, environmental modeling of ecosystem services, patented fertilizers and soil care treatments, and industry-specific software applications.

**TECHNICAL SERVICES**

Davey technical teams take Institute knowledge directly to our field crews. Our teams are staffed with experts in a particular aspect of plant care and are embedded within our operations to cover a specific geographic region. These technical scientists are equipped with advanced degrees in fields such as entomology, horticulture, urban forestry, forestry, turf, agronomy, plant pathology, plant physiology, and botany. They train our technicians and serve as on-call resources to address specific needs of our clients.

Our teams include staff focused on improving the efficiency of our operations by developing location-based decision support tools and geographic information systems (GIS) analytics.

**PROFESSIONAL TRAINING**

The Davey Institute leads the development and implementation of our professional training curriculum. Employees attend classes in person and online, and receive hands-on practical training. Every field employee benefits from our research into best practices through our established training structure that moves information into the field. However, we recognize that the most important part of training and education is an atmosphere that promotes and supports a culture of learning. The Davey Company is committed to making sure each employee has the tools she needs to deliver the best possible products and services to our clients.

**ENVIRONMENTAL PROGRAMS**

The Davey Tree Expert Company is dedicated to environmental awareness, accountability and stewardship. We recognize that our business has environmental impact and strive to conduct operations in a manner that preserves and enhances the environment. The Davey Institute leads our environmental programs by developing practices based on responsible, science-based actions, advanced technical research, and sustainable business practices. We ensure Davey’s environmental responsibilities through compliance with internal policies, applicable laws and regulations, commitment to continuous improvement, and public disclosure of our environmental, social and governance guidelines.
The Davey Institute’s facilities allow us to focus on providing real world solutions to green industry issues. Davey laboratory personnel help coordinate and conduct diagnostics and consult on various aspects of plant, soil and ecological issues. The labs interface with collaborators constantly to review and update plant health care programs and our pest database and product offerings.

In support of our Company’s North American operations, the Davey Institute’s operational base is located on our corporate campus in Kent, Ohio, with staff experts located across the U.S. On site resources include USDA-APHIS certified plant and soil diagnostics laboratories, a bio-ecological laboratory, and a field research station.

**PLANT LABORATORY**

Davey’s Plant Laboratory is a USDA-APHIS certified facility, allowing our lab to accept tree, shrub, and turf samples from within the United States. We work collaboratively with other laboratory facilities to deliver certain specialized tests. Davey territories and their clients are provided with plant problem diagnosis, identification of insects, trees, shrubs, turf and weeds and management recommendations as needed.

**SOIL LABORATORY**

Davey’s Soil Laboratory is a USDA-APHIS certified facility as well, which allows our lab to accept soil samples from within the United States. We provide basic and specialized tests to ascertain soil structure and deficiencies, and provide recommendations to the field for remediation.

**BIO-ECOLOGICAL LABORATORY**

The Bio-Ecological laboratory serves the Davey Company as a resource consortium for analysis and provides solutions for bio-ecological issues and to help with policy development. Conflict mitigation of invertebrate and vertebrate fauna and their interactions within our urban greenspaces continues to be of growing importance.

**SHALERSVILLE RESEARCH STATION**

This 28-acre wooded facility provides Davey scientists with the opportunity to conduct extensive field trials and tree-related research, including the evaluation of safety protocols during tree rigging and climbing, product development and efficacy, plant and soil care, and sustainable landscapes. It has served as host location for ISA’s Tree Biomechanics Symposium, which brings together researchers from around the world for a two-day public symposium to collaborate on tree biomechanics solutions.

**PLANT HEALTH CARE**

The Davey Institute pioneered the holistic concept of Plant Health Care in Arboriculture, publishing one of the first papers on this subject in the mid-1980’s. Davey’s thought leadership illustrates that healthy plants are better able to withstand environmental stressors and defend themselves with fewer inputs. This is an inherently proactive approach to plant management that espouses the principles of reduced pesticide usage and environmental stewardship.

**I-TREE SOFTWARE**

For over a decade, the i-Tree software suite (itreetools.org) has been the centerpiece of our cooperative federal research and development projects. This nationally recognized and awarded public-private partnership was conceived to develop and support technology that help communities strengthen their urban forest management and advocacy efforts by quantifying the structure of community trees, the environmental services that trees provide, and their value to the community.

**WILDLIFE CONSERVATION**

The Bio-Eco Lab has helped Davey with development of the Migratory Bird Treaty Act (MBTA) guidance literature and policy development, migratory bird nesting tracking in urban greenspaces, bird-proofing facilities, wildlife-wind turbine interactions, and research in the efficacy of wildlife repellent strategies on deer, geese and wild pigs in residential and commercial landscapes.

**THE NATURE CLOCK**

The laboratory features the Davey Nature Clock, a patent-pending software Growing Degree Day (GDD) based clock which predicts biological activity—including bloom time and pest emergence—using local weather data from over 400 locations across the U.S. to assist field operations with more precise timing of pest management applications.
The Davey Tree Expert Company is dedicated to environmental awareness, accountability and stewardship. We recognize that our business has environmental impact and strive to conduct operations in a manner that preserves and enhances the environment. Our environmental policies are founded on responsible, science-based actions, advanced technical research, and sustainable business practices.

WE ACCOMPLISH THIS BY FOLLOWING OUR CORPORATE RESPONSIBILITY PILLARS:

- **SAFE BUSINESS PRACTICES**
  Our behaviors and actions ensure that the safety of our employees and clients remain our highest priority. We foster a culture of safety by adhering to rigorous safety standards and reinforcing our safety message at every client visit, meeting and presentation.

- **SUSTAINABLE ENVIRONMENT**
  We have committed ourselves to environmentally responsible practices that sustain the environment, our communities and our business. We are dedicated to environmental awareness and stewardship. Our environmental policies are founded on responsible, science-based actions.

- **INNOVATIVE THINKING**
  We are leaders in leveraging our research, experience and people to address challenges facing the natural environment through product and service innovation.

- **ENGAGED EMPLOYEES**
  As an employee owned company we create an environment to fully engage our employees in their work and our purpose as a company. We invest in them as they invest in us so together we grow personally and professionally.

- **RESPONSIBLE PESTICIDE USE**
  To determine the best way to solve the client’s problem with the lowest practical environmental impact, we have implemented a risk-based approach to balance the positive and negative environmental effects of the chemicals we use.

- **PROMOTION OF INTEGRATED PEST MANAGEMENT**
  Working with industry groups and government agencies to promote the concepts of Integrated Pest Management which is an ecosystem-based strategy focusing on long-term prevention of pests or their damage through a combination of techniques such as biological control, habitat manipulation, modification of cultural practices, and use of resistant varieties.

- **CULTURE OF CORPORATE RESPONSIBILITY**
  We are leading the green space industry by incorporating sustainability practices into our business operations and reporting on our progress through our annual Corporate Responsibility report. We have already seen great results in reducing fuel usage and GHG emissions by implementing GPS mapping and moving to a lighter duty fleet.

- **POLLINATOR PROTECTIONS**
  We identify and communicate to field operations the chemicals and processes that could be harmful to pollinators and the best practices to mitigate the risk. We also work collaboratively to research pollinator gardens and work with our clients on establishing pollinator foraging areas.

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**THE DAVEY INSTITUTE – A DIVISION OF THE DAVEY TREE EXPERT COMPANY**

**WWW.DAVEY.COM/INSTITUTE ● INFO@DAVEY.COM**
Our Leadership

Our leaders represent a combination of personal expertise gained through years of practical experience in the markets we serve—from scientific discovery, to product development, to the front lines of core operations. They understand our business, its challenges, and are critical to meeting the needs of our Company through the programs we deliver.

MIKE BINKLEY

Mike Binkley is manager of technology development in support of research and development undertaken at the Institute. He has 20 years of experience working with stakeholders and software developers as well as training users of new technology. Mike holds a bachelor’s degree in natural resource conservation and a master’s degree in geography, specializing in Geographic Information Systems and Remote Sensing.

JIM ZWACK

Jim Zwack is the Director of Technical Services within The Davey Institute. He’s previously chaired the Education Committee for the Minnesota Society of Arboriculture, served on the Board of Directors for the Society of Commercial Arboriculture, and is a past chairman of the TREE Fund. He has a B.S. in urban forestry from the University of Minnesota and an M.S. in plant physiology from Iowa State University.

ANAND PERSAD

Anand Persad, Ph.D., is manager of plant sciences research and focuses on arboricultural research of biomechanics and invasive exotic pests. Anand received his Ph.D., M.S., and B.S. degrees from the University of West Indies and has received additional training in the United Kingdom from the University of East Anglia and Slimbridge Wildfowl and Wetlands Trust. As a post-doctoral entomologist at the University of Florida, he developed novel insect identification techniques.

SCOTT MACO

Scott Maco is the director of research and development and focuses on developing tools that city foresters can use to convey the value and optimal management of trees in the urban landscape. Maco has a B.S. in Urban Forestry from the College of Forest Resources, University of Washington and a M.S. in Horticulture and Agronomy from the University of California, Davis.

GREG INA

Greg Ina is the Vice President and General Manager of Research, Recruiting and Human Resource Development. Greg is responsible for research and laboratories, technical services, education and training, environmental programs, and technology development. Ina holds bachelor’s and master’s degrees from Kent State University, where he specialized in geographic information systems. He began his Davey career in 1995 as a GIS intern and was promoted to manager of GIS/IT for the Davey Resource Group. Ina is involved with many USDA Forest Service projects and has served as Chair of the National Urban and Community Forestry Advisory Council (NUCFAC).

MIKE VENEY

Mike Veney is manager of environmental programs, a critical role that is important to help ensure Davey’s science-based approach to arboriculture considers all aspects of environmental responsibility and encourages sustainable landscape practices. Veney holds a bachelor’s degree in environmental management from the University of Findlay and a degree in law from the University of Akron.

RJ LAVERNE

RJ Laverne is manager of education and training. He is responsible for all Davey training programs including Davey’s flagship training program, Davey Institute of Tree Sciences. RJ is an International Society of Arboriculture, Board Certified Master Arborist and American Society of Consulting Arborists, Registered Consulting Arborist. Laverne has a B.S. in Biology from the University of Michigan, B.S. in Forestry from Michigan Technological University and a M.S. in Remote Sensing from the University of Michigan.

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Doing Business With Us

The Davey Institute actively seeks partners and collaborators that align with our program areas and industry leadership. We work with all sizes of organizations in the commercial, governmental, university and non-profit sectors. We invite you to contact us.

Our primary contact information:

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