



The International Tree Failure Database



By Luana Vargas

Over the last five to ten years, technology has allowed us to do things never imagined before—checking e-mail inside an airplane, getting voice directions from a ‘gizmo’ attached to our windshield, or playing video games with an opponent in another continent, are just a few of the things most of us never imagined possible. Additionally, our world was introduced to a new verb: ‘to Google.’ Indeed, it is commonly used. We Google everything—for maps and directions, for pictures, for advice, for deals, to study, to research, to find a person, or to find a tree! On a smaller and more specialized scale, other search engines and databases are being built every day. In this article I would like to talk about one in particular—the International Tree Failure Database.

The International Tree Failure Database (ITFD) started in 2003, resulting from the cooperative efforts of the USDA Forest Service, representatives from the California Tree Failure Reporting Program (CTFRP), Pacific Northwest Database, academia, and many local Chapters of the International Society of Arboriculture (ISA). Based on the CTFRP conceived in 1987, the project aims to create a searchable database with information on tree failure from countries throughout the world. The information gathered in this database has the potential to help tree managers and researchers worldwide in uncovering tree failure patterns. Understanding these patterns may allow for better prediction of tree failures, as well as the creation of standards for species selection and maintenance that consider these patterns and allow managers to reduce the overall impact of tree failures.

ITFD defines tree failure as “a structural failure or physical breakage of the tree trunk, one or more branches, or one or more tree roots.” The reporting form is comprised of seven sections, both on the website as well as in paper format. Although comprehensive, there are only four mandatory fields: tree genus and species; state or province and country; diameter at breast height (dbh); and type of failure. However, the more complete and accurate the information submitted, the more useful the database will be as a whole (as well as the reports generated from it).

To ensure the accuracy of the information that is submitted to the database, the ITFD team requires that contributors to the database be trained prior to submitting information for inclusion in the database. The training usually takes between two and three hours total, and is flexible in regards to location and facility. At the end of the training, trainees can provide their electronic contact information to receive a user name and password to upload reports through ITFD’s website.

The ITFD team is composed of regional coordinators, and they can be contacted to schedule a training session in the areas that they

cover. Available under the ‘Help – Training Schedule’ portion of the website, is a list of regional coordinators, the area that they serve, and their contact information. To help make the database easy to use for users at all levels, data can be collected and entered at the same time via an online form, collected in a PDA application and later uploaded, or collected on paper for later entry.

Photos of the failure being reported would be a very good addition to the system currently in place. For this reason, the ITFD team has been researching the idea of providing a way that would allow for photos to be uploaded in conjunction with the analysis data form. This would allow for documentation of a particular failure as well as the creation of “case studies” to educate arborists and other professionals about predisposing factors to tree failure and post-failure investigation. Additionally, these case studies could be used as a powerful tool in educating and training arborists who work in tree risk assessment. With this goal in mind, the ITFD team is creating guidelines for how photos should be taken and what are the requirements for inclusion into the database.

What if it were possible to do a search on all of the water oaks (*Quercus nigra*) that have failed in the last five years in a certain region, state, or country? Through ITFD and the help of its trained contributors, this information will become available in the near future. The ITFD team states that once the database has enough data, summary reports will be created and made accessible through the website. This database will be a powerful tool for urban tree managers around the globe. The arboriculture professional community should be supportive and excited about this project.

If you would like to know more about the database, and the information collaborators can provide, download the User Guide available through the ‘Help’ section on the site.

Online Resources:

International Tree Failure Database:

<http://svinetfc2.fs.fed.us/natfdb/index.aspx>

Forestry Images: <http://www.forestryimages.org/urban.cfm>

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