



i-Tree

Bringing technology to the trees – it's time to find out what we have

Tree managers around the world are turning to a US Forest Service computer program called iTree to help them oversee their trees, conference attendees were told.

The iTree software, which is free at itreetools.org, helps assess the trees in an urban setting. This includes counting the trees, measuring their age, identifying species and adding up their combined canopy.

From this, the value of the trees, such as their contribution to combatting pollution, can be quantified. The data also indicates where new trees should be planted.

In an initiative backed by Mayor Boris Johnson, an iTree survey has been conducted in London, with 725 sample areas, each 11.3 metres in radius, being measured. The initial results are due to be announced May 27th.

The itreetools.org website gives this description of the free i-Tree programme:

"i-Tree is a state-of-the-art, peer-reviewed software suite from the USDA Forest Service that provides urban forestry analysis and benefits assessment tools. The i-Tree Tools help communities of all sizes to strengthen their urban forest management and advocacy efforts by quantifying the structure of community trees and the environmental services that trees provide.

"Since the initial release of the i-Tree Tools in August 2006, numerous communities, non-profit organizations, consultants, volunteers and students have used i-Tree to report on individual trees, parcels, neighbourhoods, cities, and even entire states."

It is important to measure the urban forest because its impact is so broad, the site explains. Trees reduce pollution, curb rainwater runoff, reduce temperatures, provide a home for wildlife, provide psychological benefits to people who live and work near them, and raise property values, among other benefits.

In the UK a group expert in iTree surveys is the social enterprise firm called Treeconomics, found at www.treeconomics.co.uk.

Grosvenor conference

Managing urban trees in the 21st Century

"We need to know more about managing our Grosvenor Estate trees", said Grosvenor Planning and Environment Director Nigel Hughes, "so we thought, why not include the wider community as we learn about the subject?"

Thus on April 30 some 75 invited participants found themselves in a Grosvenor-sponsored free seminar on how to care for our urban trees.

Speakers included experts on the law regarding tree safety, a scientist who works with tree pests and pathogens, and technology specialists who discussed the latest computer programme designed for tree surveying and management.

We live in a city, the audience was told, but we also live in the middle of a forest.

With that in mind, one of the main priorities to emerge from the day was that Londoners need to know what trees we have in order to manage them intelligently. Those in charge of trees on private land should consider undertaking an iTree study to survey and inventory their trees (see box this page for more details on iTree).



Martin Kelly of Trees and Design Action Group chaired the conference sponsored by Grosvenor

Keep good records

The first speaker was Charles Mynors, formerly a planning officer for the Royal Borough of Kensington & Chelsea, and a chartered surveyor. He is a specialist in the law of trees.

Discussing boundary issues, he said tree branches and roots that grow over boundary lines still belong to the tree owner. A person whose land is being encroached by a neighbour's tree is allowed to cut back the branches and roots, but first the owner has to be given an opportunity to remedy the problem.

Regarding boundary hedges, if a hedge is encroaching on neighbouring property, it can be cut back to the boundary line. The Anti-social Behaviour Act of 2003 has helped to prevent many disputes on this subject since it was enacted.

He said tree managers should keep good records of past tree inspections.

Tree danger

A sobering talk was delivered by Jeremy Barrell, a consulting arborist and a Chartered Forester.

Sometimes trees fall over



Keith Sacre urged more genetic diversity.

and cause harm, and even relatively small falling branches can cause serious injury. If a person suffers a permanent brain injury in a tree accident it can cost around £210,000 a year for their 24-hour care, and millions of pounds over a period of years.

So how often should trees be checked? There is no clear answer, he told the audience.

Depending on the circumstances, it might be prudent to inspect the trees once a year or in cycles as long as every five years.

He pointed the audience to the guidance available through the Health and Safety Executive document *Management of the risk from falling trees or branches*, found via www.hse.gov.uk, and the Forestry Commission website, www.forestry.gov.uk, which has advice from the National Tree Safety Group, including the free publication *Common sense risk management of trees*.

When trees are being pruned, managers should also request an inspection be carried

out at the same time.

And he reminded the audience that our mature trees are a precious asset. "They have huge cultural benefits. They link us to the past, and are a bridge to people in the future."

Referring to the trees in nearby Berkeley Square, W1, he noted that they are almost 250 years old, and "have the potential to go on for centuries".

Disease risks

Tree disease specialist David Lonsdale said tree dis-



Berkeley Square

eases often can arrive from overseas, or a pest or pathogen can mutate and become a danger.

Problems can be imported through living plants, wood or other plant products, wooden packing material, or escapes from laboratories.

Current risks include sudden oak death, massaria disease of plane, bleeding canker of horse chestnut, horse chestnut leaf miner, ash dieback, and disease of juniper. One that is especially worrying, he said, is the canker stain of plane, which is moving northward through France. "It's a very big worry", he said.

Diversity needed

Tree expert and salesman Keith Sacre of Barcham Trees, a large container tree nursery, said the perils facing trees include financial (they can be cut down for being in the way of construction) pests and diseases, climate change, lack of genetic diversity, and being of one dominant age.

Planners need to be sure a diverse spread of trees is planted, and make a better informed species choice. They also need to think about "successor" trees so younger ones will be there when the old ones die off. "Look for successor trees, and you won't see many of them," he warned.

Mr. Sacre said that some 60 to 70 percent of the urban trees are in private ownership.

It's important to have a detailed knowledge of our trees.

"How can you manage anything if you don't know what you're starting with," he said.

Both he and the subsequent speaker, urban planner and consultant Anne Jaluzot, praised the iTree survey capabilities.

One lecturer told the audience he was surprised they had returned after the tea break after being bombarded by stories about hoards of pests and diseases and being taken to court

Ms Jaluzot said the system is used in more than 100 countries, and provides information on structure, the number of trees, and species composition.

It can predict canopy cover and has a consistent methodology that is useful for benchmarking. It can map where planting should go, and gives good guidance for species mix. "It allows an asset management approach," she noted.

Putting value on trees has an impact on local authorities' allocation of assets, she said. In one recent case the Devon town of Torbay which had been reducing its spending on trees actually reversed its position and began to increase spending, once the positive effects of the trees, such as reducing pollution, was measured and spelled out.

Tree fall risk of death for UK residents is 1 in 10 million

According to the Health and Safety Executive, each year between five and six people in the UK are killed when trees or branches fall on them. Around three people are killed each year by trees in public spaces.

Thus the risk of being struck and killed by a tree or branch falling is extremely low (in the order of one in 10 million for those trees in or adjacent to areas of high public use), the HSE points out.

Last year Teresita Sison, 58, was killed during a day of high winds on October 21 (see story, page 1) and on the same day Carlos Rocha was severely injured as he took a break from his work on an Eaton Square, SW1, house.