Dutch study suggests Wi-Fi possibly harmful to trees

Image: Wikipedia.

(PhysOrg.com) -- A new study carried out in the Netherlands suggests radiation from Wi-Fi networks may be damaging trees and affecting the growth of other plants near routers.

Scientists from Wageningen University were asked to carry out the study five years ago after local officials in Alphen aan den Rijn noted that ash trees planted near a wireless router were suffering from bleeding bark, cracks, lumps, discolorations, and their leaves were dying. No bacterial or viral infection could be identified in the trees.

The researchers, led by Dr. A.A.M. van Lammeren, exposed small ash trees and other plants to six sources of radiation at frequencies varying from 2412 to 2472 MHz and a capacity of 100 mW EIRP, the range common for Wi-Fi. The plants were placed at distances varying from 50 to 300 cm for a period of more than three months. The results revealed that in trees closest to the Wi-Fi source the upper and lower epidermis (skin) of the leaves developed a metallic luster and began to die off.

A survey of trees in urban areas in the Netherlands showed 70 percent of all deciduous trees had similar symptoms, compared to only 10 percent five years ago, while in wooded areas away from urban centers trees were unaffected.

Reports on the study may inflame concerns in some over locating wireless routers in schools and fears radiation from them may affect humans as well as trees, but the scientists concerned stress the findings are preliminary and no far-reaching conclusions can be made. The researchers say larger scale research is needed over a longer period to confirm the findings. It is unclear whether the experiments ruled out other possible factors such as the presence of more pollution in urban areas than forests. The study also acknowledges that other research carried out elsewhere has shown Wi-Fi radiation has no detrimental effects.

The study will be the subject of a conference in the Netherlands in February next year.

More information: Wageningen University original (Dutch): http://www.wagenin … en101120.htm