THE APPLICATION OF REFLECTOR-LESS LASER TECHNOLOGY FOR REMOTE SURVEYING OF FARMLAND TREES

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Farmland trees are considered to be rich wildlife habitats within agricultural environments. Farmland trees can also be important reserves of timber on lowland farms. As significant elements, trees should be assessed for habitat value, condition, timber volume and placement within wider surveys. However, farmland trees are frequently away from public rights of way requiring surveyors to identify landowners/tenants and seek permission to enter property. Where access can be gained it may be difficult to take measurements, due to cultivations, presence of livestock or placement in hedgerows.

Reflector-less laser technology offers the potential to remotely survey trees for top height, crown depth and diameter, bole diameter and volume. When used in conjunction with a digital mapping program, trees can also be located for analysis in a GIS.

This paper examines the effectiveness of modern laser sighting equipment in terms of successful hit rates over a range of distances, perceived accuracy for recording placement of farmland trees and includes comments on costs and work rates.