

Plants help sniff out soil risks



Ian Oliver at work in the field. His award-winning research could see plants being used to identify risk levels from metals in soils

Part-detective, part-scientist ... a young South Australian researcher has used plants to identify toxic metals in soil.

Ian Oliver carried out research on measuring the bio-availability of soil copper.

His work allows soil researchers to use plants to measure available levels of heavy metals found in many contaminated soils.

His research earned him the 2007 Australian Society of Soil Science Award for soil science publication excellence. And now the society is seeking another young soil science star for the 2008 honour.

Ian used tomato plants and ryegrass and stable isotopes to assess biologically available copper in soils. Previous work in this field relied on the use of radioactive isotopic tracers, which have safety issues and limited scope, due to short half-lives in the case of some elements.

Ian's research also helped reconcile different measurement techniques and could be used to assess other contaminants that have more than one stable isotope, including heavy metals such as lead.

According to the judges, Ian's paper "identified a well-defined gap in knowledge. It covered an area of considerable importance to a wide range of studies that involve the addition of isotopes to soil".

The award is given annually for a publication on any subject in soil research for people aged less than 35. It is made on the basis of scientific merit, relevance to soil science and effectiveness in communication.

Entries for the 2008 award are currently being examined by judges.

Read more about the award at <http://www.asssi.asn.au/general/awardcondpublic.php>

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