



Tea-Composition

Students using the Tea Bag Index to measure soil health



Students are Invited to Get Involved in a Global Research Project

Your students are invited to interact and collaborate with world renowned soil scientists as they investigate soil health in your own school's backyard. Soil is an essential, complex and highly valuable natural resource which we depend on to produce the vast majority of our food and fibre. Healthy soils underpin a healthy environment, productive crops, economic sustainability and food security.

The Tea Bag Index

Researching the living soil – a simple method

The University of Sydney Institute of Agriculture invites you and your students to participate in 'Tea-composition' - a practical, real-world research project that evaluates decomposition and its relation to local soil type, soil properties and environmental influences, using simply, a tea bag.

Our researchers need the help of students and teachers to develop a state-of-the-art digital map of soil health across New South Wales. The Tea Bag Index provides a simple method for students to conduct this research.

Science, Mathematics and Agriculture

With lesson plans designed by teachers, for teachers, students in Stages 3, 4 and 5 will be engaged in practical activities including field tests, laboratory style experiments, classroom analyses and digital reporting. The project and optional extension lessons have specific and integrated links to the learning areas of science, mathematics and agriculture. Suggested depth studies for Biology and Earth and Environmental Science are also available for senior students.

A field test kit, educational resources and lesson plans will be provided by The University of Sydney for teachers and students.

What's Involved?

Recommencing in spring 2018, this project is able to fit the needs and time commitments of teachers. Educators may elect to participate in the study for as little as three months, however, students will be exposed to a more valuable experience if they choose to participate in the full length of the project.



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The Process

- Students will choose at least two different locations on their school grounds, for example, a native environment and a managed environment (i.e. sports field).
- The students will weigh and bury rooibos tea bags and green tea bags in each location.
- Students will conduct a range of field, classroom and laboratory analyses on each site to determine soil and environmental properties such as organic matter, pH, clay content and vegetation.
- After three months, students will exhume the tea bags, dry, weigh and determine the rate of decomposition, and in doing so, examine the microbiological activity of their soils.
- Students can also have their soils analysed at The University of Sydney, where detailed digital interpretations of their soil properties will be supplied in return.
- Online lectures and discussion forums will allow students to interact directly with leading soil scientists about their project.

Participation in Tea-composition aims to develop students' experimental, analytical and communication skills by meaningfully performing an actual science research project. Students will develop connections with scientists at The University of Sydney and school groups around NSW through knowledge exchange, mentoring and expert advice.

Interested in Getting Involved?

Please join us in this global endeavour to measure soil health, to understand and conserve this essential, complex and natural resource.

Register your interest here: <http://sydney.nicheit.com.au/web/registration/start/250> or for more information please contact our school programs officer.

School Programs Officer

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