

# Planetary

## Newsbeats



### \* **New Eco Friendly De-Inking Process Developed.**

A new technology utilising enzymes (biological molecules) has been shown to remove ink from recycled paper. A research project conducted by the University of Malaysia Sarawak reported the use of a crude enzyme preparation for the enzymatic de-inking of mixed office paper. Traditional de-inking methods have involved the use of large quantities of chemicals, causing pollution to the environment. The enzyme material was prepared by growing endoglucanase (enzyme used for the enzymatic treatment) producing *Bacillus licheniformis* BL-P7 in a liquid culture media containing sago pith waste and rice husk. Furthermore, the process proved to be more effective for the removal of larger ink particles. Also, properties such as brightness, air permeability, tensile, and tear were enhanced in the preparation of the recycled mixed office paper.

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### \* **A-Beta Protein Alzheimer Disease Clues**

Amyloid-beta the thinking brain's protein has been shown to be intrinsically involved in increased neuron activity. A study into people with severe brain injuries resulted in steadily rising levels of A-beta protein as their brain activity increased through recovery. A-beta, as the protein is sometimes called, is best known for causing plaques in the brains of people with Alzheimer's disease. It is a normal component of the brain, but scientists don't know what it does. Traumatic brain injuries increase the risk for Alzheimer's disease. Researchers from Milan, Italy and Washington University in St. Louis, USA used advance brain testing techniques to ascertain if brain injuries cause a spike in amyloid-beta levels that could lead to plaque formation, a team of researchers from Milan, Italy, sampled fluid from the brains of 18 comatose patients.

What the researchers found was exactly the opposite of what they expected, says David L. Brody, a neurologist at Washington University who led the study with Sandra Magnoni of the Ospedale Maggiore in Milan. Instead of seeing a spike of A-beta soon after brain injury from falls, car accidents, assaults or hemorrhages, levels of the protein started low and rose as the patients improved, the team reports in the Aug. 29 *Science*.

### \* **Farm Kids Avoid Asthma & Allergies**

Pre-natal exposure to farm animals and plants helps protect children from asthma, allergies and eczema. Researchers from the Centre for Public Health Research discovered farmers' children had a lower incidence of allergic diseases than children not exposed to animals, grain and hay products. The findings have been published in the *European Respiratory Journal*. Associate Professor Jeroen Douwes says it is the first study to show a direct link between exposures in utero and a significant reduction in asthma symptoms, hay fever and eczema.

### \* **Organic Wine Leaves Only Half the Eco Footprint of Non-Organic!**

Italian environmental scientists from the University of Siena, measured the resources needed to produce wine at two farms in Tuscany. Both were utilizing Sangiovese grapes but one was totally organic and the other was not. The organic farm used natural fertilisers and most of the work was done by hand, while the other farm used conventional methods of production. A bottle from the organic farm had an eco-footprint of 7.17 square metres, half that of the non-organic wine with a footprint of 13.98 square metres. *Agriculture, Ecosystems and Environment*, DOI: 10.1016/j801534g

### \* **Low Sperm Count Link to Soy also includes Nuts, Wines and Beers**

The high levels of oestrogen like chemicals in soya beans have also been found in beers, wines and nuts. Gunter Kuhnle of the MRC Dunn Human Nutrition Unit in Cambridge, UK tested foods and beverages using mass spectrometry. Previous testing had focused on lignans but ignored isoflavones and this expanded search has found phytoestrogens in many more foods and drinks. Studies into the effects of phytoestrogens have produced a mixture of results, with some showing compounds that protect against cancer, menopausal symptoms and heart diseases, whilst others have been linked to increased risk of breast cancer and male infertility.

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