

## SEMEINAR

### ARE WE EATING TOO MUCH ARSENIC?

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#### Extended Summary

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Arsenic contamination in groundwater has been reported from 105 countries worldwide. As a consequence of using contaminated water for irrigation, arsenic is also deposited in agricultural soils and potentially contaminated food crops grown in the contaminated land. This talk discussed on (i) groundwater arsenic contamination and its associated health effects, (ii) arsenic in food chain, rice and vegetables, (iii) arsenic in rice-based products, and (iv) lowering of arsenic in rice and management issues.

The work on metals/metalloids is both the environmental chemistry and plant physiology aspects. Environmental chemistry aspects of the work are interested in metals/metalloids in biotic and abiotic matrices such as soils, sediments, minerals, plant and human tissues/fluids such as hair, nail and urine. The work concentrates on human exposure to metals/metalloids through food-chains. Plant eco-physiological aspects of the metals/metalloids research investigates mechanisms of metals/metalloids uptake, transport and metabolism, particularly how plants adapt to high levels of metals/metalloids, the metals/metalloids including arsenic, cadmium, etc. using synchrotron based X-ray techniques.

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