



**Integral Institute of Agricultural Science & Technology (IIAST)  
Integral University, Lucknow**

**Journal Club Presentation**

**Department of Agriculture, IIAST**

**Integral University, Lucknow**

The Department of Agriculture, Integral Institute of Agricultural, Science and Technology (IIAST) runs IIAST Journal Club in order to share congruences with the latest trends in the field of agriculture and to create awareness amongst students, scholars, researchers and academicians about the agrarian counter-trend. The Journal Club was held on 29/05/2022 at 11:30 A.M. in the Seminar Hall of Department of Agriculture. Mr. Mohd. Mohsin, Research scholar, Department of Agriculture, IIAST, continued the same accord by providing an explicit presentation. He presented a research paper entitled “Heavy Metal Concentrations in Roadside Soils on the Białystok-Budzisko Route in Northeastern Poland” published in the Minerals MDPI in 2021.

The paper was discussed thoroughly which explained the content and spatial distribution of heavy metals (Fe, Mn, Cd, Pb, Cr, Ni, Zn and Cu) in the top layer of roadside soils along the trunk road Białystok–Budzisko. Metal concentrations in roadside soils occurred in the following order: Fe > Mn > Zn > Cr > Cu > Pb > Ni > Cd. The mean content of Cd, Zn, Cu, and Pb was higher than the geochemical background values of the Polish soils. Moreover, the values of Igeo indicated moderate to strong contamination with Cd, while the soils were moderately contaminated with Zn, Cu, and Pb. The dynamics of changes of the factor values at each research point presented in this paper showed the highest factor values for points located in agricultural and urban areas. The level of urbanization, road age, atmospheric conditions and agricultural production on soils can significantly affect the distribution of trace metals in roadside soils but the crucial source of metal pollution is road transport, depending on its intensity, number, type and speed of vehicles. The results of this paper are relevant to the prevention and control of heavy metal pollution in roadside soils. The work can contribute to reducing the concentration of toxic elements appearing in the food chain and ecosystems due to vehicle emissions. We suggest that the first step in this direction should be an appropriate land-use policy that would prohibit the use of roadside land, on either side of the road, for agriculture and livestock grazing.

Dr. Saba Siddiqui, Head, Department of Agriculture, IIAST, Integral University, addressed the audience and urge students to take advantage of the available resources to acquire. She discussed the research values in such forums.

The presentation was concluded with the vote of thanks by Dr. Faria Fatima. The program was successfully conducted by Dr. Faria Fatima, Dr. Suhail Ahmad Khan, Dr. Shipra Yadav, Coordinators, Journal Club.

**Glimpse of Journal Club Presentation, 29<sup>th</sup> May, Department of Agriculture, IIAST**

