Proceedings International
Platinum Open Access Journal (ISSN 2668-6384)

Proceedings, Abstract
Volume 3, Issue 6, 2021, 12
https://doi.org/10.33263/Proceedings36.012

A Study on Heavy Metal Toxicity in Vegetables at Sanganer, Jaipur near Dravyavati River †

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† Presented at Environmental Toxicology: Impact on Human Health (Environ Tox 2021)

Received: 5.11.2021; Revised: 18.11.2021; Accepted: 20.11.2021; Published: 30.11.2021

Abstract: Vegetables comprise the essential and nutritious part of the human diet as it contains a lot of minerals and vitamins. Prolonged usage of contaminated water for irrigation results in the accretion of significant heavy metals in vegetables. Because of the bio-accumulation and non-biodegradable nature of heavy metals, their intake through contaminated vegetables leads to many health issues. Sanganer, in the district of Jaipur (Rajasthan, India), is known throughout the world for its dyeing and printing industries. There are approximately 400 textile printing factories that discharge effluents into nearby drains and the Dravyavati river without prior treatment. Heavy metals such as arsenic (As), mercury (Hg), lead (Pb), cadmium (Cd), chromium (Cr), copper (Cu), nickel (Ni) are found in these effluents, which get mixed into the water and soil and enter into the vegetables grown in that area, and when these contaminated vegetables are consumed by human beings, it poses severe health disorders. The present paper reviews the existence of heavy metals in different vegetables grown in the Sanganer area, near Dravyavati river, and their effect on vegetables and human health.

Keywords: bioaccumulation; heavy metal; vegetables; human health.

Funding

This research received no external funding.

Acknowledgments

Authors are thankful to Vivekananda Global University, Jaipur, for providing the essential facilities.

Conflicts of Interest

The authors declare no conflict of interest.