Heavy Metal(loid)s in Agriculture

This special issue on ‘Heavy Metal(loid)s in Agriculture’ belongs to Open Agriculture - an open access journal that publishes research and review articles reflecting the latest advances in various fields of agriculture.

GUEST EDITOR

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DESCRIPTION

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The list of heavy metal(loid)s may include (but not limited to) arsenic (As), aluminum (Al), cadmium (Cd), cesium (Cs), chromium (Cr), cobalt (Co), copper (Cu), lead (Pb), manganese (Mn), mercury (Hg), molybdenum (Mo), nickel (Ni), selenium (Se), strontium (Sr), uranium (U), and zinc (Zn). These elements are toxic for most living organisms at low concentrations.

Considerable quantities of heavy metal(loid)s are spreading from mining activities, smelting processes, industrial applications, and domestic uses. Anthropogenic activities are also mobilizing the mineral deposits of these toxic substances. These contaminants end up in soil and water resources, damagingly the use of the resources along with imposing toxic effects on the living organisms. Moreover, the direct use of heavy metal(loid)s is also increasing in agriculture. It is well-known that the above-permissible levels of these contaminants adversely affect the physiological processes in plants, livestock, and poultry. Along with several other health risks, heavy metal(loid)s cause various types of cancers in humans. Both acute and chronic toxicities of these contaminants may be fatal; however, chronic exposure may be affecting the general public without being detected.

There is now irrefutable evidence that dietary exposure to heavy metal(loid)s, via the agricultural produce (crops, livestock, and poultry), is increasing the risks to human health. The quality and quantity of agricultural produce are also negatively impacted by the toxic levels of heavy metal(loid)s.

This special issue aims to explore four topics of heavy metal(loid)s:

1. Status in, and remediation of soils and waters
2. Uptake, translocation, remobilization, and partitioning in plants
3. Toxicity and tolerance mechanisms in plants, and phytoremediation
4. Contents in foods originating from agriculture (crops, livestock, and poultry), and the associated risks to human health

Dr. Shahid Hussain
Guest Editor

HOW TO SUBMIT

The authors are kindly invited to submit their contribution via online submission system Editorial Manager available at http://www.editorialmanager.com/opag/ and choose Section ‘Special Issue: Heavy Metal(loid)s in Agriculture’ while submitting their work.

All articles should be submitted in English. All papers will go through the Open Agriculture high standards, quick and comprehensive peer-review procedure and will be published continuously. Before submission the authors should carefully read over the Instruction for Authors.

If you have any questions, please contact Agnieszka Topolska (Open Agriculture Managing Editor) at Agnieszka.Topolska@degruyter.com

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