|  |  |  |  |
| --- | --- | --- | --- |
| Title | Distribution of Zinc Fractions in Relation to Properties of Some Soils of Bangladesh | | |
| Author(s) Name | Kalpana Begum; Md Faruque Hossain; Zakia Parveen | | |
| Contact Email(s) | zakiaparveen1@yahoo.ca | | |
| Published Journal Name | Dhaka University Journal of Biological Sciences | | |
| Type of Publication | Journal | | |
| Volume | 25 | Issue | 1 |
| Publisher | Dhaka University | | |
| Publication Date | 2016-06-28 | | |
| ISSN | 1021-2787 | | |
| DOI | https://doi.org/10.3329/dujbs.v25i1.28491 | | |
| URL | https://www.banglajol.info/index.php/DUJBS/article/view/28491 | | |
| Other Related Info. | Pages 19-25 | | |
| **Keywords:** Distribution, Zinc fractions, Speciation procedure | | | |
| Citation: Begum, K., Hossain, M. F., & Parveen, Z. (2016). of zinc fractions in relation to properties of some soils of Bangladesh. Dhaka University Journal of Biological Sciences, 25(1), 19–25. | | | |

|  |  |
| --- | --- |
| Abstract |  |
| An investigation was conducted to determine the distribution and concentrations of different forms of Zn in the soils of Gazipur. Gerua, Kalma and Khilgaon soil series were identified in three land types, named as highland, medium high land and medium low land, respectively. Soil samples were collected from each soil series at three different depth such as surface (0 -15 cm), subsurface (15 -40 cm) and substratum (40 cm+) to determine soil characteristics and the distribution pattern of Zn fractions. Results indicated that amount of total Zn varied significantly, ranges from 14.99 to 36.11 mg/g at different depth of different land types. Moreover, the purpose of the sequential extraction or fractionation was to find out the Zn in the exchangeable (Exch.), organic matter (Org.) bound, Mn oxide (Mn-O), amorphous Fe oxide (Am. Fe-O), crystalline Fe oxide (Crys. Fe-O) and residual (Res.) fractions. In Gerua, Kalma and Khilgaon soils, Zn concentrations predominated in Res. followed by Crys. Fe-O and Am. Fe-O fractions. Results reflected that soil properties influence the distribution of different Zn fractions in soils. | |

**Please specify which Sustainable Development Goal (SDG) (s) falls under your research:**

|  |  |  |  |
| --- | --- | --- | --- |
| Goal 1 | No Poverty | Goal 2 | Zero Hunger |
| Goal 3 | Good Health and Well-Being | Goal 4 | Quality Education |
| Goal 5 | Gender Equality | Goal 6 | Clean Water and Sanitation |
| Goal 7 | Affordable and Clean Energy | Goal 8 | Decent Work and Economic Growth |
| Goal 9 | Industry, Innovation and Infrastructure | Goal 10 | Reduced Inequalities |
| Goal 11 | Sustainable Cities and Communities | Goal 12 | Responsible Consumption and Production |
| Goal 13 | Climate Action | Goal 14 | Life below Water |
| **Goal 15** | **Life on Land** | Goal 16 | Peace, Justice and Strong Institutions |
| Goal 17 | Partnerships for the Goals |  |  |