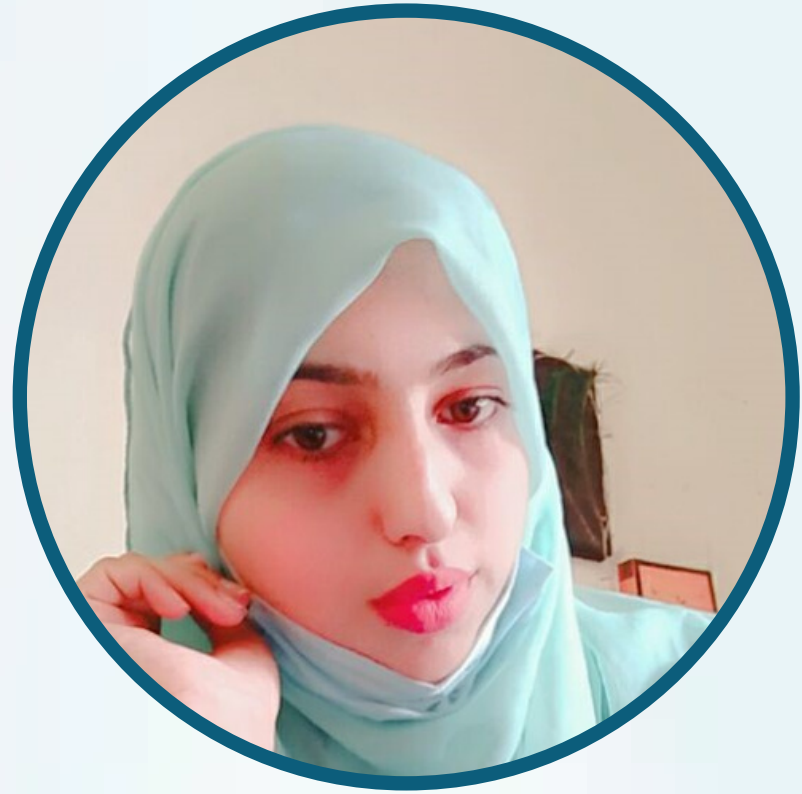


# JOINT E-CONFERENCE ON RENEWABLE ENERGY AND SUSTAINABILITY & GEO SCIENCE AND GREEN TECHNOLOGY MARCH 15-16, 2023 | WEBINAR



## Sabeela Yaqoob

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### Mitigation Of Heavy Metal Stress (Cd) In Maize (*Zea Mays L.*) By Nutrient Management Through Different Sources.

The objective of this study was to analyze the impact of vermicompost on soil fertility and to observe its effects to reduce cadmium stress on maize crops. The trial was organized in a completely randomized design (CRD) having three replications. The investigation included 12 treatments. i.e. Recommended dose of chemical fertilizer (NPK 250:125:125 kg/ha), CdCl<sub>2</sub> 15 mg/kg soil; CdCl<sub>2</sub> 30 mg/kg soil; Biochar 2 tonn/ha, Vermicompost 2tonn/ha, CdCl<sub>2</sub> 15 mg/kg soil + Biochar 2 tonn/ha, CdCl<sub>2</sub> 30 mg/kg soil + Biochar 2 tonn/ha, CdCl<sub>2</sub> 15 mg/kg soil + Vermicompost 2 tonn/ha, CdCl<sub>2</sub> 30 mg/kg soil + Vermicompost 2 tonn/ha, CdCl<sub>2</sub> 15 mg/kg soil + Biochar 1 tonn/ha + VC at 1 tonn/ha, CdCl<sub>2</sub> 30 mg/kg soil + Biochar at 1 tonn/ha + VC at 1 tonn/ha, CdCl<sub>2</sub> 15mg/kg soil + NPK (250:125:125 kg/ha,); CdCl<sub>2</sub> 30 mg/kg soil + NPK (250:125:125 kg/ha). Parameters regarding soil fertility and the impact of vermicompost application on plant development and the biochemical and physical properties of plants in response to the applied vermicompost was analyzed that treatment T3 (BC 2 t ha<sup>-1</sup>) and T4 (VC 2 t ha<sup>-1</sup>) show better results than all other treatments in all parameters. While T<sub>0</sub> (Cd 15 mg/kg + VC 1tonn/ha + BC 1 tonn/ha), shoot root length increases from the control condition under heavy metal contaminated soil. So, concluded that T4 (VC 2 tonn/ha) reduce the uptake of Cd in roots under heavy metal-contaminated soil. The maximum decrease of Cd in root, shoot, vermicompost and biochar-contaminated soil.

### Biography:

**Sabeela Yaqoob**, To describe myself I would say that I am a humble person with flexible nature, fully disciplined and self-motivated. The most beautiful thing about me is I am always ready to accept good changes in me. I am now in 4th semester of my Ph.D. Agriculture (Agronomy) from University of Agriculture, Faisalabad Pakistan. Throughout my education I have shown good results in my academics. Now it's my keen desire to continue my research to enhancing maize productivity in response to organic fertilizer under heavy metal stress at student research area under University of Agriculture, Faisalabad.