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Combined effects of ZnO NPs and Cd on sweet sorghum as influenced by an arbuscular mycorrhizal fungus

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On plant growth:

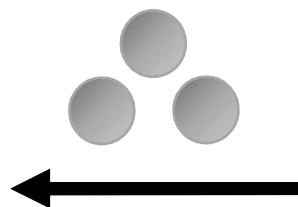
- antagonistic interactions with Cd

On plant Zn/Cd:

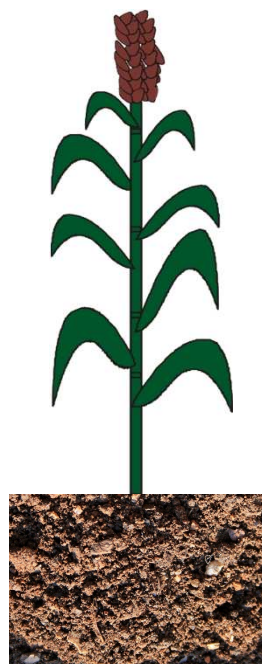
- decreased [Cd] in shoots and roots
- decreased shoot [Zn]

On soil enzyme activity:

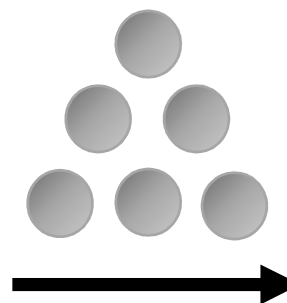
- antagonistic interactions with Cd



ZnO NPs
(50 mg/kg)



Soil with Cd



ZnO NPs
(250, 500
mg/kg)

On plant growth:

- synergistic toxicity with Cd

On plant Zn/Cd:

- decreased [Cd] in shoots and roots
- increased root [Zn]

On soil enzyme activity:

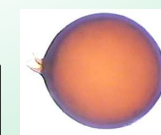
- antagonistic interactions with Cd

AMF

**Higher tolerance:**

- Increased growth
- Improved P nutrition
- Increased soil enzyme activity
- Decreased shoot [Zn] (50/0 and 50/5 mg/kg ZnO NPs/Cd)
- Decreased shoot [Cd] and increased root Cd (0/5 ZnO NPs/Cd)

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