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## Wheat expansin gene *TaEXPA2* is involved in conferring plant tolerance to Cd toxicity

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### Highlights

- Overexpression of wheat *TaEXPA2* in tobacco increased seed germination rate and root elongation under Cd stress.
- Transgenic plants have greater biomass accumulation and more stable photosynthesis than WT under Cd stress.
- Cell damage under Cd toxicity in WT plants was more seriously than transgenic plants, and WT plants had higher Cd<sup>2+</sup> content than transgenic plants.
- H<sup>+</sup>-ATPase on plasma membrane in the transgenic plants were higher than WT, accompanied by the net of Cd<sup>2+</sup> efflux rate under Cd stress.
- In tonoplast, the activities of V-ATPase and PPase were also higher than WT.

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