

Title : Effect of mother tree and seed provenance on seed germination of some tree species

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Major : Biology

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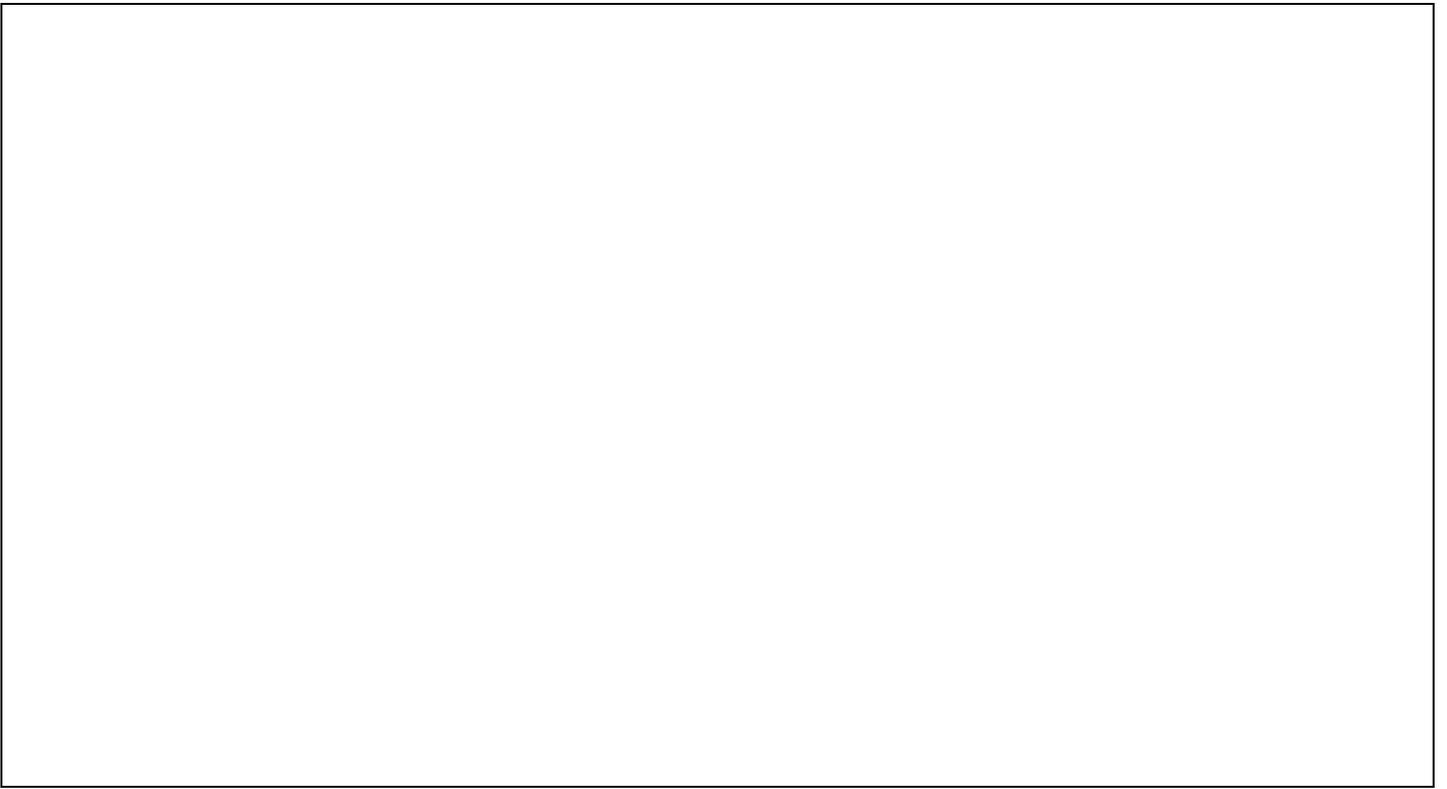
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## ABSTRACT

Forest restoration is vital for conserving ecosystems and biodiversity. In many regions, reforestation with seedlings is a common practice, often using seeds from local tree species that are likely adapted to the environment. However, climate change may alter environmental conditions, necessitating the consideration of seeds from other regions. This study aims to investigate the effects of seed provenance and mother trees on the germination of *Cassia fistula* L. to support seedling production. The research examines how various seed sources influence germination rates by utilizing seeds collected from the northern, southern, northeastern, and central regions of Thailand. Seed germination was tested in a controlled plant growth chamber set at a constant temperature of 25°C and a relative humidity of 70%. Germination data were recorded every two days until all seeds had germinated. The results indicated that the average germination rates were similar across different seed sources, showing no significant differences. Additionally, the study assesses the effect of mother trees on germination rates. Fruits were collected from ten *Cassia fistula* L. mother trees, with their diameter at breast height (DBH) and total tree height measurements. The seeds were cleaned and evaluated for germination in the growth chamber. This part of the study remains ongoing.

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| Microbiology  | จุลชีววิทยา  |
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