

The Role of Aspterric Acid in Auxin-Regulated Reproductive Growth of *Arabidopsis thaliana*

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Application of 100 μM aspterric acid (AA), a pollen growth inhibitor, with different concentrations of indole-3-acetic acid (IAA) results in the recovery of normal pollen development of *Arabidopsis thaliana*. Treatment with 100 μM AA plus 5 mM IAA significantly induced the normal seed production. Treatment with 100 μM *N*-1-naphthylphthalamic acid (NPA), a polar auxin transport inhibitor, did not reduce the pollen growth but inhibited seed production. 100 μM NPA plus 5 mM IAA did not induce any seed production. The endogenous level of IAA in stems and leaves of *A. thaliana* treated with 100 μM AA was similar to that of the untreated control. In contrast to AA treatment, the IAA level by the treatment with 100 μM NPA was about twice as much as that of the untreated control. These results suggest that AA affects the *Arabidopsis* reproductive growth without inhibiting IAA biosynthesis and transport.

Key words: Aspterric Acid, Indole-3-acetic Acid, *Arabidopsis thaliana*