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EFFECT OF N, N'-DINITROETHYLENEDIAMIDE ON POLLEN GERMINATION AND NITROGEN METABOLISM DURING POLLEN TUBE ELONGATION

YIP-MING HUANG¹ AND TAIWANIA HUANG²

Abstract. The nitrogen metabolism associated with pollen germination in *Phaseolus moutan* var. *amburghii* was studied. A synthetic plant growth regulator, EDNA (N, N'-dinitroethylenediamide), was added to the culture medium in order to detect whether or not the nitrogen metabolism of pollen was affected by growth retardation during pollen germination.

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INTRODUCTION

N,N'-Dinitroethylenediamide (EDNA) is a synthetic plant growth regulator, a new product of the Dow Company, U.S.A. In recent years, many kinds of synthetic herbicides, and plant growth regulators have been used in agriculture and horticulture, however none of these chemicals have been used to examine its effect on pollen germination and pollen tube elongation. Horticulturist and plant breeders often fail to get fertile seeds during artificial pollination. The main cause of failure of seed setting is due to the result of slow growth of the pollen tube or its

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DeVol, C. E., 1972. *Isoetes* found on Taiwan. *Taiwania*, 17 (1): 1-7.
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