

## Regulation of Root Gravicurvature by Brassinosteroids

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Brassinosteroids (BRs), isolated from the rape pollen, has been known to regulate the growth and development of plants in the lower concentrations. To explain the physiological role of BRs, we studied the effect of brassinolide (BL) on gravitropic response in primary root of maize (*Zea mays* L. cv Golden Cross Bantam). Intact primary roots that had been pretreated vertically with BL were placed in a humidified box in the horizontal position. BL, especially  $10^{-7}$  M BL, stimulated root positive curvature. And the ethylene production was stimulated by the treatment of BL in root segments. In addition, it was similar that the pattern of stimulated curvature and ethylene production by BL. The inhibitors of ethylene production such as AVG and cobalt ion regulated the ethylene production in the presence of BL. Further, these inhibitors affect the BL stimulated gravitropic response in intact roots. These data suggested that the action of BL on gravitropic response might be mediated with the BL induced ethylene production in maize roots.

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Keywords: brassinolide, maize root, ethylene inhibitor, gravitropism