

PROMOTING EFFECTS OF MEPIQUAT CHLORIDE ON LATERAL ROOT INITIATION OF COTTON SEEDLINGS

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Effects of Mepiquat Chloride (MC) on initiation and development of lateral roots of cotton seedling were studied using *Gossypium hirsutum* L. cv. Zms16 and Zms29, cultured on glass board after soaking seeds with 400 mg/L MC for 12 hours. The number of lateral roots, root primordia, and the segment length of lateral roots and root primordia initiation were increased by MC. MC also promoted primordia initiation and lateral root development after removal all the megascopic lateral roots. Under the stress of low temperature, the initiation of lateral roots was significantly promoted by MC also. Levels of IAA, Z and ZR in the middle segment of primary root were all increased by MC, which might be the key reason for lateral root induction.