

研究论文

# 矮壮素 (CCC)对马铃薯块茎产量及同化产物分配的影响

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**摘要** 四年的田间试验表明,花期施用矮壮素(0.20%)可使马铃薯块茎的形成提早1周,块茎产量增高30~50%。利用<sup>14</sup>C<sub>2</sub>示踪方法也证明了矮壮素处理可提高叶子的光合活性约80%。<sup>14</sup>C-同化产物在马铃薯体内的分布格式也因矮壮素处理而发生改变。矮壮素处理的植株中<sup>14</sup>C-同化产物在块茎中的分配%相当于对照的8倍。矮壮素处理也使马铃薯茎顶端的<sup>14</sup>C活性减低,但中部的活性增高,在基部的活性又显著下降。本研究结果充分说明矮壮素处理引起马铃薯块茎产量提高的原因之一,就是由于矮壮素促进了同化产物向块茎的运输作用的缘故。

关键词

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## EFFECTS OF CCC APPLICATION ON TUBER YIELD AND DISTRIBUTION OF ASSIMILATES IN POTATO PLANTS

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**Abstract** Field experiments for four years showed that application of CCC(0.20%) during blossoming period caused tuber formation of potato plant one week earlier than that of the control plants. The tuber yield was increased 30-50% by CCC treatment. Using <sup>14</sup>C<sub>2</sub> as a tracer, it was found that <sup>14</sup>C assimilated by the leaf of CCC treated plants was 80% higher than that of the control plants. The pattern of the partitioning of <sup>14</sup>C-assimilates within potato plants was also altered by CCC treatment. The proportion of <sup>14</sup>C-as...

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