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[\[Full-text PDF \(793K\) \]](#) [[References](#)]**Effect of CCC and BA on the Formation of Potato Tuber in vitro**

Tomohide YAMAMOTO and Kazuo NAKATA

1) Minami-Kyushu University

2) Tokyo University of Agriculture

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Abstract:

Using the micropropagated potato shoots of 'Benimaru', 'May Queen', and 'Danshakuimo', originating from a meristem culture, the effects of 2-chloroethyltrimethylammonium chloride (CCC) and benzyladenine (BA) on the formation of microtuber were investigated. The number and fresh weight of microtubers after 28 days of culturing were largest in the Murashige and Skoog (MS) solid medium supplemented with CCC (500 mg L⁻¹) and BA (5 mg L⁻¹) under dark conditions. This indicates that the tuberization medium proposed by the International Potato Center (CIP) is available for the formation of microtuber of the three cultivars described above. It was also found that CCC was effective for increasing the number of microtubers at the early stage of culturing, and that the fresh weight of microtuber of 'May Queen' was relatively small as compared to those of the other two cultivars. Scanning electron microscopy (SEM) revealed an external morphology at the stage of transforming into tuber from axillary bud after two days of culturing on a medium supplemented with CCC (500 mg L⁻¹) and BA (5 mg L⁻¹) in the dark at 20°C.

Keywords:

BA, CCC, Microtuber, Potato, Tissue culture

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