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ONLINE ISSN : 1349-1008

PRINT ISSN : 1343-943X

**Plant Production Science**

Vol. 8 (2005) , No. 1 74-78

[\[PDF \(480K\)\]](#) [\[References\]](#)**Effects of Planting Date on the Growth and Yield of Two Potato Cultivars Grown from Microtubers and Conventional Seed Tubers**[Jackson Kawakami](#)<sup>1)</sup>, [Kazuto Iwama](#)<sup>1)</sup> and [Yutaka Jitsuyama](#)<sup>1)</sup>

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(Received: December 24, 2003)

**Abstract:** This study clarified the effect of planting date on the growth and yield of potato (*Solanum tuberosum* L.) plants grown from conventional seed tubers (CT) and microtubers (MT). CT of about 50 g and MT of 1 to 3 g of early (Kitaakari) and late (Norin 1) maturity cultivars were planted at Hokkaido University, Sapporo, Japan, on May 13, June 4 and June 25, and their growth and yields were investigated. The linear increase in leaf area index started later, but thereafter was higher in MT plants than in CT plants, irrespective of cultivar and planting date. Tuber formation was later in MT plants than in CT plants of both cultivars, but this difference was smaller on the last planting date. The linear increase in tuber dry weight started later in MT plants than in CT plants, but the rate of increase was similar in MT and CT plants of both cultivars and on all planting dates. Delaying the date of planting reduced the tuber yield, mainly because of the shortening growing period in MT and CT plants. The reduction in tuber yield and growing period was greater for the late cultivar Norin 1 compared with the early cultivar Kitaakari of CT and MT plants. Despite the climatic variations among the planting dates, MT plants yielded 71 to 90% of tuber fresh weight relative to CT plants, suggesting that MT are a good alternative as propagules for potato cultivation in countries where seed production is difficult.

**Keywords:** [Field cultivation](#), [LAI](#), [Solanum tuberosum L.](#), [Tuber bulking](#), [Tuber formation](#)

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To cite this article:

Jackson Kawakami, Kazuto Iwama and Yutaka Jitsuyama: "Effects of Planting Date on the Growth and Yield of Two Potato Cultivars Grown from Microtubers and Conventional Seed Tubers". Plant Production Science, Vol. **8**, pp.74-78 (2005) .

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doi:10.1626/pps.8.74

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