

Author: [ADVANCED](#)Volume Page Keyword: 

[TOP](#) > [Available Issues](#) > [Table of Contents](#) > [Abstract](#)

ONLINE ISSN : 1349-1008

PRINT ISSN : 1343-943X

Plant Production Science

Vol. 8 (2005) , No. 1 44-50



[\[PDF \(523K\)\]](#) [\[References\]](#)

Influence of Day Length on Stem Growth, Flowering, Morphology of Flower Clusters, and Seed-Set in Buckwheat (*Fagopyrum esculentum* Moench)

[Hiroyasu Michiyama](#)¹⁾, [Keiji Tsuchimoto](#)¹⁾, [Ken-ichiro Tani](#)¹⁾, [Tatsuya Hirano](#)¹⁾, [Hisayoshi Hayashi](#)²⁾ and [Clayton Campbell](#)³⁾

1) Faculty of Agriculture, Meijo University

2) Graduate School of Life and Environmental Sciences, University of Tsukuba

3) Kade Research Ltd.

(Received: May 21, 2004)

Abstract: The effects of day length on main stem growth, flowering, morphology of flower clusters and seed-set were examined in three buckwheat cultivars Shinanonatsusoba (summer eco-type), Miyazakizairai (autumn eco-type) and BLO 1999 (a long cluster line which usually develops DM clusters at Kade Research Ltd., Canada). Long-day treatment prolonged the stem elongation period, elevated the first flowering node, delayed the first flowering day, increased the numbers of nodes, flower clusters and flowers on the main stem, and decreased the increase rate of flowering-cluster number, the number of seeds and the seed-set ratio on the main stem. It also increased the frequency of DM clusters, the length of the flower clusters and the number of sub-flower-clusters per cluster in Shinanonatsusoba and Miyazakizairai as well as in BLO 1999. The effects of day length varied among the growth parameters and there were three types of responses to day length. The difference between the summer and autumn eco-type cultivars in the responses to day length was elucidated in four groups of parameters; (1) main stem elongation; (2) first flowering node and first flowering day; (3) increase rate of flowering-cluster number on the main stem; and (4) the number of seeds and seed-set ratio.

Keywords: [Buckwheat](#), [Day length](#), [Eco-type](#), [Flower cluster](#), [Flowering](#), [Growth](#), [Seed-](#)



[\[PDF \(523K\)\]](#) [\[References\]](#)

Download Meta of Article [\[Help\]](#)

[RIS](#)

[BibTeX](#)

To cite this article:

Hiroyasu Michiyama, Keiji Tsuchimoto, Ken-ichiro Tani, Tatsuya Hirano, Hisayoshi Hayashi and Clayton Campbell: "Influence of Day Length on Stem Growth, Flowering, Morphology of Flower Clusters, and Seed-Set in Buckwheat (*Fagopyrum esculentum* Moench)". Plant Production Science, Vol. **8**, pp.44-50 (2005) .

doi:10.1626/pps.8.44

JOI JST.JSTAGE/pps/8.44

Copyright (c) 2005 by The Crop Science Society of Japan



[Japan Science and Technology Information Aggregator, Electronic](#)

