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ONLINE ISSN : 1883-2261

PRINT ISSN : 0389-1763

Japanese Journal of Farm Work Research

Vol. 45 (2010) , No. 1 pp.45-49

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Study on Efficient Heating Methods for Harvester to Prevent Secondary Infection of Red Perilla Bacterial Wilt

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(Received November 18, 2009)

(Accepted February 13, 2010)

Abstract

Secondary bacterial wilt spread through a trimmer blade of a harvester has become a major issue in red perilla when crops are rotated in rice fields. To prevent infection, the trimmer blade must be heated above 90°C. Therefore, we considered an efficient method of sterilization in which the trimmer blade is heated.

A direct method for heating the trimmer blade is hindered by the blade action : the wires might be cut by the trimmer blade swing at high speed. The obstacles were overcome with a method of indirect heating achieved with a cover plate over the trimmer blade, which included a built-in micro-sheath heater that exceeds the 90-degree requirement.

Key words

[Red Perilla](#), [Bacterial Wilt](#), [Secondary Infection](#), [Heating Trimmer Blade](#), [Sterilized](#), [Efficient Heating Method](#)

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To cite this article:

Yuji NAGASAKI, Takefumi MATSUZAKI, Hiroaki TANAKA and Yoichi NAKAMOTO
(2010): Study on Efficient Heating Methods for Harvester to Prevent Secondary Infection of
Red Perilla Bacterial Wilt . Japanese Journal of Farm Work Research 45: 1 45-49 .

doi:10.4035/jsfwr.45.45

JOI JST.JSTAGE/jsfwr/45.45

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