



NUTRITIONAL AND ENVIRONMENTAL REQUIREMENTS FOR THE MORPHOGENESIS OF *OPHIOCORDYCEPS* *SOBOLIFERA*

A. IMTIAJ^{1,2} AND S. OHGA^{1*}

¹ Division of Forest Environmental Sciences, Department of Agro-environmental Sciences, Faculty of Agriculture, Kyushu University, Fukuoka 811-2415, Japan.

² Department of Botany, University of Rajshahi, Rajshahi-6205, Bangladesh.

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ABSTRACT

Nutritional and environmental requirements for spore germination, mycelial growth and sporocarp development of *Ophiocordyceps sobolifera* were evaluated. There was no spore germination after 5 days of incubation at 25 C. However, pre-incubation at 4 C for 7 days stimulated the spore germination. Incubation with the tissues of sporocarp of *O. sobolifera* on PDA and yeast-malt agar resulted in mycelial growth and callus-like structure (sporocarp) development. The callus-like structure was examined under a microscope, revealing many sporocarps. Among 12 media, PDA-yeast malt extract, PDA-yeast extract and yeast malt extract, showed more sporocarps and branch formation than other media. The greatest growth was supported by PDA-yeast malt extract, which also contained more ingredients than any other media. Sporocarp formation was poorly supported by either PDA or yeast malt extract. However, the combined media accelerated mycelial growth and development of the sporocarp. Plant growth hormones were also found to stimulate the formation of ascocarps and could be considered as an enhancer of sporocarp formation of *O. sobolifera*.

Key words: Activators, ascocarp, germination, growth hormones, morphogenesis.

* Corresponding address: Tel.: +81-929483118; Mobile: +81-80-5283-2259; Fax: +81-929483116.
E-mail: ohga@forest.kyushu-u.ac.jp