Studies of Formulations for Nomuraea rileyi and Trichoderma virens

簡年佑、謝建元

E-mail: 9318481@mail.dyu.edu.tw

ABSTRACT

This thesis, which studies the formulation of Nomuraea rileyi and Trichoderma virens, mainly works on the stability of conidia activity during preservation as well as on the lethality of the spore formulation under the exposure of UV. The fresh conidia of N. rileyi was heated at 35°Cfor 1 hr; then suspended into the soybean oil with 1% glucose. After the storage from 3 months to 6 months, the germination percentage of the formulated conidia was decreased from 63% to 46%. With 6 months old oil-based agent the lethality against 3th-instar larvae of Spodoptera exigua was remained 63.3% of mortality. Four percentage of conidia germination was found in the spore powder without formulation after 5 months storage. For the purpose of protection from UV, 0.5% zinc oxide was added to oil-based agent. The 74% of germination with 80% of lethality against 3th-instar larvae was found under the light of 30 Lux UV for 30 minutes. The spore powder germination with non-formulation closes to zero. The fresh conidia of T. virens was heated at 35°Cfor 1 hr; then suspended into the soybean oil with 1% sucrose. Under the refrigeration for 6 months, the germination percentage still retains 51%. But for the non-formulated spore powder, its germination percentage remains only 23%. In addition, for the purpose of protection from UV, 0.5% zinc oxide was added to oil-based agent. The 41% of germination was found under the light of 30 Lux UV for 120 minutes. On the other hand, the germination of non-formulated spore powder was found closed to zero.

Keywords : Nomuraea rileyi ; Trichoderma virens ; formulation

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