

Studies of Formulations for *Nomuraea rileyi* and *Trichoderma virens*

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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 °C for 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 °C for 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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