

Field Application of Trichoderma Suspension to Control Cacao Pod Rot (Phytophthora palmivora)

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Abstract	Cacao pod rot caused by <i>Phytophthora palmivora</i> , is an important disease and contributes significant disease losses to global cocoa production. This research objective was to determine the effect of <i>Trichoderma harzianum</i> and <i>T. virens</i> suspensions to cacao pod rot disease on the field. This research was carried out in Pulo Hagu village, Pidie Regency, Aceh, Indonesia from March to July 2017. The single pattern randomized block design was adopted to evaluate three treatments, i.e. without suspension (control), suspensions of <i>T. Harzianum</i> , and <i>T. virens</i> for eight replications. Each replication consisted of three of experimental units. The result showed that both of <i>Trichoderma</i> species contained only Alkaloid metabolite based on Phytochemical test. On the field, the application of <i>T. harzianum</i> suspension reduced the percentage of fruit infection and disease intensity for 48.57 %, 46.04 % at 12 weeks after application (WAA) respectively. Based on the percentage reduction in the area of the spot between the metabolites <i>T. harzianum</i> suspension and control and <i>T. virens</i> and control are 47.24 % and 27.46 % at 87 WAA respectively. In addition, <i>T. virens</i> suppressed the percentage of infected fruit and the intensity of infected fruit for 40.61 % and 38.02 % at 12 WAA.
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