Production of bio agent, *Trichoderma viride* using liquid wastes and other substrates

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In ecofriendly agriculture, *Trichoderma* species is promising bio control agent for various plant pathogens. It can be multiplied in solid and liquid media but liquid fermentation has yields high reproductive capacity and it is more convenient than solid state fermentation system. High cost for substrate, inadequate storage methods are major problems in small scale level production. Therefore this study was carried out to screen out suitable liquid wastes and other liquid media as suitable substrates for small scale production of *Trichoderma viride*. Locally available house hold and industrial liquid waste such as Black gram soaked water, Coconut water, Rice mill effluent from the red pericarp variety (At 353), 5% Distillery spent wash and other liquid substrates like 1% palmyrah jaggery solution, 5% palmyrah Toddy and 1% palmyrah fruit pulp extract, Cow urine 10%, *Gliricidia sepium* and 10% *Thespesia populnea* leaves, were Individually investigated. Among these substrates higher growth and sporulation of *T. viride* was recorded in black gram soaked water ($35.9x10^7$spores/ml), followed by 1% Jaggery solution ($30.0x10^7$spores/ml), Coconut water ($28.8x10^7$spores /ml), Rice Mill Effluent ($28.7 x10^7$spores/ml) and Palmyrah fruit pulp extract ($27.1x10^7$spores/ml) after 14 days of incubation in dark room at ambient temperature (30 ± 2^0C) . Present study reveals that locally available liquid substrates are potential source for liquid fermentation of *T. viride*.

Keywords: Black gram soaked water, Coconut water, Liquid wastes, Small scale multiplication, *Trichoderma viride.*