LEAVES CULTURES OF *Curculigo latifolia* Dryand TOWARDS DIFFERENT STERILIZATION TECHNIQUES

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The Final Year Project entitled "**Leaves Cultures of *Curculigo latifolia* Dryand Towards Different Sterilization Techniques**" was submitted by Nursyairah Binti Nisham, in partial fulfilment of the requirements for the Degree of Bachelor of Science (Hons.) Biology, in the Faculty of Applied Sciences, and was approved by

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ABSTRACT

LEAVES CULTURES OF *Curculigo latifolia* Dryand TOWARDS DIFFERENT STERILIZATION TECHNIQUES

The fruits of *Curculigo latifolia* is very unique as when eaten with an acid containing food it gives a sweet taste to the taste stimuli due to presence of sweet protein of curculin present in the fruit. Hence, *in vitro* culture was introduce to the plant to mass propagate for study uses as it has many benefits in medical value. However, many scientific studies done on *C. latifolia* where most of the technique from previous studies limited by contamination. The *C. latifolia* plant was surfaced sterilize by 3 different methods of sterilization with 5 replicates for each methods to choose the best sterilization method for culturing leaf explant. The leaf explants was obtained from inside the shoot where the new leaf tissue are produce. From three methods tested, sterilization with 70% ethanol for 90s, 20% Clorox for 20min, 7 drops of Tween 20 for 15 min and 1% mercuric chloride for 10 min, come out as the best technique for the sterilization of *C. latifolia*. This technique is a modification technique of Method A that followed from Babaei *et al.* (2013). The technique shows high surviving rate of culture within 2 weeks' time with 73% clean cultures. Whereas, Method B and Method C do not showed any clean cultures within 2 weeks' time with 100% contamination. Furthermore, the part of leaf was divide by 3 part which were P1 that was approximately 4 cm away from the roots with 100% clean cultures compare to P2 that was approximately 2 cm from the roots has 80% clean cultures and P3 was nearest to the root has 40% clean cultures.