

EFFECT OF MEDIA ON FLAVONOID CONTENT OF
Striga asiatica in vitro


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DECLARATION

I hereby declare that this research report entitled EFFECT OF MEDIA ON FLAVONOID CONTENT OF *Striga asiatica in vitro* is the result of my own research except as cited in the references.

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ABSTRACT

The effect of media strength on flavonoid content in *S. asiatica* cultures was investigated. The explants were cultured in double strength, full strength and half strength of MS and B5 media separately. The flavonoids were fractionated according to the ratio of chloroform/methanol by 100% chloroform, 80:1, 40:1, 20:1 and 10:1. Thin Layer Chromatography test obtained showed that presence of flavonoid in *S. asiatica in vitro*. This study found that culture medium for highest accumulation of flavonoids in *S. asiatica* is MS medium (full strength). Half strength MS medium shows highest ratio flavonoid content in fraction E (0.157 mg/g). Full strength of MS medium shows most favourable flavonoid production in fraction B (0.526 mg/g) and D (0.356 mg/g) crude weight. Double Strength of MS medium shows highest flavonoid production in fraction A (0.457 mg/g). Full strength of B5 medium contains highest flavonoid content in fraction C (0.368 mg/g). Accumulation of flavonoid in *S. asiatica in vitro* is affected by media strength.

KESAN MEDIA KEATAS KANDUNGAN FLAVONOID DALAM
Striga asiatica in vitro

ABSTRAK

Kesan kekuatan media ke atas kandungan flavonoid dalam kultur *S. asiatica* telah dikaji. Eksplan telah dikultur di dalam media MS dan B5 pada kekuatan ganda dua, kekuatan penuh dan kekuatan separa. Flavonoid telah dipisahkan dengan kloroform/metanol pada nisbah 100% kloroform, 80:1, 40:1, 20:1, dan 10:1. Kromatografi Lapisan Nipis (TLC) menunjukkan flavonoid terdapat di dalam kultur *S. asiatica in vitro*. Kajian ini mendapati bahawa pengumpulan flavonoid adalah berada pada tahap tertinggi di dalam media MS (kekuatan penuh). Media MS kekuatan separa menunjukkan nisbah kandungan flavonoid tertinggi dalam pemisahan E (0.157 mg/g). Media MS kekuatan penuh mengandungi flavonoid tertinggi dalam pemisahan B (0.526 mg/g) dan D (0.356 mg/g). Media MS dengan kekuatan ganda dua mengandungi flavonoid tertinggi pada pemisahan A (0.457 mg/g). Media B5 kekuatan penuh mempunyai flavonoid tertinggi pada pemisahan C (0.368 mg/g). Pengumpulan flavonoid dalam kultur *S. asiatica* didapati dipengaruhi oleh kekuatan media.