

Thesis Title	Control of Fungi on <i>Allium</i> by Various Plant Extracts
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ABSTRACT

Six plants including garlic, galangal, ginger, lemon grass, shallot and onion, were individually extracted by using water, ethanol or methanol. Each plant extract was used to inhibit the growth of six isolates, *Aspergillus niger*¹, *A. niger*², *Penicillium* sp.1, *Penicillium* sp.2, *Penicillium* sp.3 and *Penicillium* sp.4. The efficiency test was conducted by well diffusion method on potato dextrose agar (PDA) medium and evaluated by measuring inhibition zone diameter. The results revealed that the aqueous fresh garlic extract could more effectively inhibit the growth of all six isolates than other aqueous plant extracts. Whereas, ethanolic dry galangal extract could more effectively inhibit the growth of all isolates than other ethanolic plant extracts. Furthermore, methanolic dry galangal and ginger extracts could more effectively inhibit the growth of six isolates than other methanolic plant extracts. The inhibition zone still remained after storage at room temperature for a month. The *in vivo* test was done on shallot and onion bulbs by inoculation with each isolated fungus. In the case of shallot, the results showed that ethanolic dry galangal extract had higher antifungal activity against all isolates than other plant extracts. In the other hand, disease symptom was not observed on inoculated onion but soft and rot was observed instead.

