HERBICIDAL POTENTIAL OF *Pistia stratiotes* ON THE AQUATIC WEEDS IN THE PADDY FIELDS

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ABSTRACT

HERBICIDAL POTENTIAL OF Pistia stratiotes ON THE AQUATIC WEEDS IN THE PADDY FIELDS

The herbicidal potential of the water lettuce (*Pistia stratiotes*) was examined on the germination and growth of barnyard grass (*Echinochloa crus galli*) and rice (*Oryza sativa*) seeds. The aqueous methanol and water extractions obtained from water lettuce were applied on both species of the plants. Both extractions inhibit the germination and growth of the weeds. However, the germination and growth of the rice seeds were not affected by both methanol and water extraction of the water lettuce. The water lettuces contain allelochemicals that could inhibit the germination and growth of the barnyard grass seeds. The germination bioassay was not done on the rice seeds since the rice seeds were usually sown after imbibing in the water until the coleoptiles were protruded from the rice seeds. Even though the growth of the rice seeds were not inhibited by both extracts, the length of the roots depend on the concentration of the extracts being applied.