

**GERMINATION CHARACTERISTICS OF RHIZOMES OF  
*Panicum maximum* IN COCONUT PLANTATIONS OF  
SRI LANKA**

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by  
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## ABSTRACT

*Panicum maximum* is a major weed in coconut lands and many of the bare lands. Being an invasive and aggressive weed, other than high seed production capacity, germination of rhizomes has a major role for its continuity as a perennial weed. If germination is controlled, it would ultimately result in growth suppression and control of the weed to a certain extent. Experiment was therefore conducted to investigate the impact of air drying of rhizomes of *P. maximum* on reduction of moisture, total carbohydrate percentage and finally the germination of rhizomes at the CRI, Lunuwila, Sri Lanka. A bulk of uniformly grown plants of *P. maximum* was uprooted from a coconut land and grouped into 8 treatments based on three factors such as presence/absence of soil with roots, presence/absence of leaves, split/ unsplit bush condition. Rhizomes were air dried for 0 to 12 days at 3 days interval in a plant house. Air drying of rhizomes for more than 3 days reduced the moisture content, total carbohydrates and germination of rhizomes. Initial moisture content of 75.4 % reduced to the lowest of 6.4% when drying for 12 days in *P. maximum* without soil, with leaves treatments. Initial carbohydrate content also reduced from 0.17% to 0.03% when drying for 12 days in *P. maximum* without soil, without leaves treatments. Germination was totally inhibited when air drying for more than 9 days in all treatments and further *P. maximum* without soil, with leaves treatments recorded 16-20% germination when air drying for 6 days. Most effective agronomic practice to control *P. maximum* was the removal of the soil attached to the root system after uprooting and laying for air drying for 6-9 days, where soil is no in contact with roots.

*Keywords:* Air drying, Germination of rhizomes, Moisture content, *Panicum maximum*, Total carbohydrates