

Germination Characteristics of Rhizomes of *Panicum maximum* in Coconut Plantations of Sri Lanka

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Panicum maximum is a major weed in the 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 for some 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 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. 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