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ABSTRACT

This special project attempted to determine the contribution of the aboveground biomass of talahib to soil fertility amelioration of lahar-laden soil. This further quantified the amount of nitrogen, phosphorus and potassium that the grass species contributes to the improvement of soil fertility.

Three quadrats, which measured 3m x 3m, were established in a grassland community at the Ramon Magsaysay Technological University (RMTU), San Marcelino, Zambales. Three grass species were found thriving in the area: talahib (*Saccharum spontaneum*), hagonoy (*Chromolaena odorata*) and *Colopogonium* sp. Among these, talahib yielded the highest mean biomass (dry weight) of 1,710 kg/ha followed by hagonoy with mean biomass yield of 100.9 kg/ha and *Colopogonium* sp with mean biomass of 50.9 kg/ha. The highest yield in biomass of talahib is due to the fact that it has the ability to establish itself in harsh conditions such as offered lahar. Specifically, this may be attributed to the ability of species to withstand drought and extreme temperature, the presence of its extensive, deep penetrating root system, which can reach an average depth of 42cm and the presence of underground rhizomes or stems.

Likewise, the computed Importance Value (I.V) of each species suggested that talahib is the most dominant and the most important species in the area. It has an Importance value of 91.84% followed by hagonoy and *Colopogonium* sp with Importance Values of 5.42% and 2.74%, respectively.

Based on the tissue analysis conducted, it was found out that talahib contains 0.85% nitrogen, 0.15% phosphorus and 0.68% potassium which when translated into kilogram per hectare, the grass species can contribute an approximate amount of 150 kg Nitrogen, 130 kg Potassium and 30kg Phosphorus. This implies that talahib can help enhance the soil structure and fertility of lahar-laden soil.