

Giant bamboo is the Philippines tallest and largest bamboo species. They used as tomato stakes, poultry floors, and in making engineered bamboo products. Because of its thick culm, giant bamboo lasts longer than other bamboo species such as *Bambusa* and *Gigantochloa*.

However, due to increasing demand for bamboo, the resource is rapidly dwindling. Harvesting is unregulated and, too often, the urgent demand for poles lead farmers to harvest immature culms resulting in poor quality bamboo products. Over-harvesting also leaves the clump with limited capacity to re-grow and production in subsequent seasons is affected.

Decipulo (DENR Region X) conducted a research to rehabilitate existing aged and/or damaged giant bamboo stands for shoot and pole production. The research also evaluated the interactive effects of fertilization and cutting intensity on the regenerative capacity of bamboo. The project was implemented from 2001 to 2006 in Bukidnon with funding from the Australian Centre for International Agricultural Research (ACIAR).

- Shoot emergence started in early June, peaked in late July, tapered off in August and ended in late September or early October depending on precipitation. It was observed that precipitation influenced shoot production, no shoots were observed during drier months.
- There were variations in the annual shoot production. During the first year, the average shoot production across all treatments was 3.83/clump. It more than doubled during the second year (10.7) but declined to 4.8 during the third year. Then it increased in 2004 and 2005 and then shoot production dropped in 2006.
- Compared to other species, giant bamboo was not a prolific producer of shoots. Retaining ten culms rather than six culms per year appeared more favorable for shoot production. In contrast, leaving only a few culms or leaving all culms unharvested led to depressed shoot production.
- Based on the results of the study, one pole of giant bamboo yielded 59.4 kg oven dry weight; therefore, on the average, 1 ha giant bamboo yielded a total dry biomass of 53.3 t annually if the annual culm harvest is 4.4 culms/clump with a 7 m x7m planting distance. The average yield per clump was 4.4 culms and there were also years that production was much higher. Culms comprised 76-88% of total aboveground biomass, averaging 38-55t/ha.

The project created awareness among bamboo stakeholders on the management of giant bamboo plantation for sustained production. The output of this study will help increase the productivity of the stand which depends largely on the cultural practices and management of plantation.

Source: *Philippine Council for Agriculture, Forestry and Natural Resources Research and Development. Highlights 2008. Los Baños, Laguna. PCARRD, 2009. 272p.*

Reference: Decipulo, M. *Production of quality poles and shoot of giant bamboo (*Dendrocalamus asper*) in Bukidnon. Malaybalay, Bukidnon: Ecosystems Research and Decelopment Services - R10, Department of Environment and Natural Resoures, 2007. -(ACIAR-funded; Completed project).*