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SHORT COMMUNICATION

Growth and development of *Bambusa balcooa* (Bhuluka baah) and *Bambusa tulda* (Jaati baah) – a field observation

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Abstract The present study was carried out to understand the rate of growth and development of two bamboo species namely *Bambusa balcooa* (Bhuluka banh) and *Bambusa tulda* (Jaati banh) cultivated together under same environmental condition. It was recorded that circumferences were only showed significant difference not the shoot number and shoot length of the two species.

Keywords Green Gold • *Bambusa balcooa* • *Bambusa tulda*

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Observations and Discussion

Bamboo is well known as poor men's timber and as the Green Gold of 21st Century. India is the second highest bamboo producing country in the world. It is one of the fast growing species and one among the most economically important non timber forest product (NTFP). Bamboo, one of the fastest-growing plants on earth with reported growth rates of 250 cm in 24 hours due to its unique rhizome dependent system (Mishra et el, 2014).

A study was conducted in the bambusetum of Balipara Tract and Frontier Foundation (BTFF). The study site is situated between the geographical limit of longitude 92º48′43.23″ E and latitude 26º50′29.10″N. In the month of June 2013, there was a total of 50 bamboo saplings produced through tissue culture techniques were planted in the bamboo experiment site covering an area of 500m^2. Among that 50 sapling, 30 were belonging to *B. tulda* which is locally known as Jaati baah and 20 belonging to *B. balcooa* which is locally known as Bhuluka baah. For the present study 17 individual of each species were randomly selected.

After two years of plantation in the month of June 2015 the length, height and circumference of all the bamboo individuals of experiment site was recorded to understand the growth and development status of the saplings. Shoot number, shoot length and circumference of the two bamboo species originated from the tissue culture technique is given in Table 1. The maximum shoot number 6 recorded for the species of *B. tulda* whereas maximum shoot number was recorded 4 in case of *B. balcooa*. The maximum shoot length was recorded 4.5 m and 6 m for the species *B. tulda* and *B. balcooa* respectively. The highest average circumference 12.66 cm was recorded for the species *B. balcooa*. After the statistical analysis it was found that the shoot number (F=4.000, P=0.116) and shoot length (F=5.406, P=0.081) of the two species was not differ significantly whereas circumference (F=7.757, P=0.050) was significantly differ in between the two species.

It can thus be concluded that the *B. balcooa* showed better growth than that of B. *tulda* species in natural condition. But, a long term monitoring is however suggested to understand the impact of environment.

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Table 1. Shoot number, shoot length and circumference of *B. tulda and b. balcooa*

Sl. No.	Shoot number		Shoot Length (m)		Average circumference of shoots (cm)	
	B. tulda	*B. balcooa*	*B. tulda*	*B. balcooa*	*B. tulda*	*B. balcooa*
1	4	2	4.5	3.5	7.5	8
2	4	3	4.5	6	7.1	12.667
3	2	3	4	3.6	3.8	7.1667
4	2	2	3.55	3.5	3.8	6.25
5	1	2	3.5	5	6	8.25
6	4	4	3.5	4	5.1	6.25
7	2	2	3.35	3.6	4.5	5.35
8	3	3	3.25	2.85	4.5	4.6667
9	2	1	3.25	0.95	4	5
10	6	2	3.2	0.35	3.8	8.25
11	1	3	2.9	3.55	4	6.5
12	1	4	2.85	4.15	4	5.125
13	3	1	2.85	1	3.3	4.5
14	2	1	2.8	1.85	3.8	5
15	4	4	2.8	3.5	5	9.25
16	3	3	2.7	4.05	5	7.3333
17	2	4	2.05	3.65	5.5	9.5

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