

## GROWTH STABILITY OF *HEVEA* CLONES IN A HIGH ALTITUDE REGION OF MEGHALAYA

Conventionally rubber (*Hevea brasiliensis*) cultivation is undertaken in the humid tropics within 10° north and south of equator where agroclimatic conditions are appropriate for growth of rubber (Dijkman, 1951). In India, due to scarcity of land in the traditional zone, cultivation has been extended to the non-traditional regions of North East India. In these regions, the agroclimate is sub-tropical with prolonged winter and low temperature. Different clones of *H. brasiliensis* respond differently to agroclimatic conditions. Although certain reports are available on the performance of clones from some regions of North East India (Meenattoor *et al.*, 1991), such reports are lacking for the sub-tropical climatic conditions of Meghalaya and hence the present study was taken up.

The experiment was conducted at the Regional Research Farm of Rubber Research Institute of India at Tura in Meghalaya (latitude 25 to 26°N, longitude 90 to 91°E, altitude 600 m above MSL). Two clone evalua-

tion trials comprising ten clones each were initiated during 1985 and 1986 in a completely randomized block design with 50 and 40 replications respectively. Clones RR11 105, RR11 118, RR11 203, RR11 600, RR11 605, PB 86, PB 235, PB 5/51, GI 1 and GT 1 constitute the 1985 clone trial and RR11 5, RR11 105, RR11 118, RR11 208, RR11 102, RR11 105, PB 260, PB 310, PB 311 and PB 255, the 1986 clone trial. Data on growth (girth increment) were recorded at monthly intervals and season-wise data in all the four seasons prevalent in the region *viz.*, winter (December, January and February), summer (March, April and May), monsoon (June, July and August) and post-monsoon (September, October and November) from the third year to the ninth year, were analyzed for their coefficient of variation as the stability parameter following Rangaswamy (1995). Data were collected from the same location over the years and analyzed for stability on the assumption that locations and years can replace one another (Becker and Leon, 1988).

Table 1. Mean seasonal girth increment (cm) of *Hevea* clones over seven (3rd to 9th) years

Clone	Winter	Summer	Monsoon	Post-monsoon
RR11 5	0.34	0.62	2.21	2.00
RR11 105	0.22	0.87	2.20	2.00
RR11 108	0.23	0.65	4.87	2.51
RR11 203	0.27	0.83	2.39	2.47
RR11 208	0.26	1.19	2.57	2.33
RR11 102	0.28	1.00	2.52	1.94
RR11 105	0.38	1.45	2.89	2.10
RR11 600	0.35	0.79	2.68	2.04
RR11 605	0.28	0.84	2.27	2.12
PB 86	0.15	1.09	2.37	2.08
PB 235	0.21	0.96	2.52	2.34
PB 260	0.29	1.11	2.50	2.03
PB 310	0.19	0.97	2.69	2.10
PB 311	0.19	1.10	3.09	2.14
PB 5/51	0.25	0.87	1.92	1.72
GI 1	0.21	0.72	2.05	1.99
GT 1	0.30	0.81	2.14	2.22
PR 255	0.20	0.82	2.14	1.70
Mean	0.26	0.93	2.60	2.10
CV (%)	24.20	22.20	25.40	10.30