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# HETEROSIS FOR JUVENILE VIGOUR IN *HEVEA BRASILIENSIS*

Hybridization followed by clonal selection in *Hevea brasiliensis* (Willd. ex Adr. de Juss.) Muell. Arg. has yielded a number of promising clones. Fixation of heterosis is made possible by the well established vegetative propagation method. Olapade (1988) obtained very high estimates of heterosis for latex yield in certain hybrid progenies. Reports on the magnitude of heterosis for other yield attributes, however, are meagre.

In the present study, an attempt is made to determine the magnitude of heterosis for early vegetative growth of six hybrid clones (Table 1) as compared to their parents.

The clones were planted in a randomised block design with three replications at a spacing of 6 m x 3 m in plots of four plants each. Observations on plant height, number of flushes per plant, number of leaves per plant and girth at a height of 50 cm above the bud union were recorded when the plants attained 18 months' growth (Table 2).

Table 1. **Hybrid clones and their parentage**

| Clones | Parentage |
|---|---|
| RRII 105 | Tjir 1 x Gl 1 |
| RRII 102 | Tjir 1 x Gl 1 |
| HP 55 | Tjir 1 x Gl 1 |
| HP 99 | Fx 516 x Ch 31 |
| HP 31 | Tjir 1 x RRII 102 |
| HP 35 | Tjir 1 x RRII 102 |

Table 2. **Performance of parents and $F_1$ in early vegetative growth**

| Clone | Plant height (cm) | Number of flushes per plant* | Number of leaves per plant* | Girth at 50 cm above bud union (cm) |
|---|---|---|---|---|
| Tjir 1 | 309.36 | 4.14 | 61.94 | 9.87 |
| Gl 1 | 294.47 | 4.64 | 65.89 | 9.92 |
| Fx 516 | 335.22 | 3.89 | 60.89 | 11.13 |
| Ch 31 | 315.17 | 5.17 | 84.25 | 9.79 |
| RRII 102 | 320.22 | 4.69 | 59.53 | 9.77 |
| HP 55 | 331.97 | 3.81 | 51.06 | 11.05 |
| HP 99 | 324.64 | 4.22 | 50.53 | 10.21 |
| HP 31 | 371.08 | 6.14 | 99.78 | 11.63 |
| HP 35 | 380.14 | 6.94 | 103.00 | 11.24 |
| RRII 105 | 385.86 | 4.53 | 63.89 | 10.44 |
| C. D. (P = 0.01) | 115.46 | 1.24 | 28.70 | 2.48 |

* Significant.