# Short Communications

## Note on a Rapid Method of Determining Leaf Area in Elephants' Foot Corm (*Amorphophallus campanulatus* Blume)

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Measuring whole leaf of elephant foot plant is obviously laborious as it is long petioled simple three lobed leaf. In order to eliminate this laborious and time-consuming method for leaf measurement, it was felt that any alternative method, if available, would be very useful in measuring leaf area. With this view in mind an alternative method for the purpose of leaf measurement is suggested. When elephant foot plant was found to reach near maturity stage, the leaf area was measured.

One plant was selected for the planimeter observations randomly from each plot. The selected leaf was traced on a graph paper and the reading of the whole leaf area and lobe-wise leaf area ($cm^2$) was recorded. Thus, the readings were, total leaf area of the plant (Y) and lobe-1, $X_1$, lobe-2, $X_2$ and lobe-3, $X_3$ which were recorded, following the method used by Tejwani (1957) for tobacco leaf area.

*TABLE 1*

**Relation between measured leaf area (Y) and calculated leaf area (X) using lobe-wise leaf area of elephant foot plant.**

| *Sr. No.* | *Prediction through* | *Regression equation* $Y=a+b\ X$ | *'r'* |
|---|---|---|---|
| 1. | Leaf area of 1st lobe ($X_1$) | $Y=5516.06+0.4439\ X_1$ | 0.97** |
| 2. | Leaf area of 2nd lobe ($X_2$) | $Y=2685.68+1.7931\ X_2$ | 0.94** |
| 3. | Leaf area of 3rd lobe ($X_3$) | $Y=484.42+2.81\ X_3$ | 0.93** |
| 4. | Mean leaf area of three lobes (X) | $Y=83.20+2.96\ X$ | 0.99** |

**Indicates highly significant value at 1% level of probability.

The results presented in Table 1 revealed that the total leaf area could be predicted by measuring leaf area of any one of the three lobes to a fair degree of accuracy because the 'r' values obtained indicated significantly high correlation (0.93 to 0.97) between the total leaf area and leaf area of a lobe as the leaf is divided into three lobes but lamina is continuous and this method required less labour.

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### REFERENCE

Tejwani, K. G., K. Ramkrishna and K. V. Venkatram. 1957. Measurement of leaf area of tobacco. *Indian J. Agron.* **2** (1): 35-39.