FORMULÁRIO DENDROMETRIA

$$H = L[Tg(\alpha) \pm Tg(\beta)]; \quad H = \frac{L}{100}[L_1 \pm L_2]; \quad \bar{d} = \frac{\sum_{i=1}^{n} d_i}{n}; \quad \bar{d} = \frac{\sum_{i=1}^{n} f_i cl_i}{\sum_{i=1}^{n} f_i}; \quad d_q = \sqrt{\frac{\sum_{i=1}^{n} d_i^2}{n}}$$

$$d_q = \sqrt{\frac{\sum_{i=1}^{n} f_i cl_i^2}{\sum_{i=1}^{n} f_i}}; \quad h_L = \frac{\sum_{i=1}^{n} g_i h_i}{\sum_{i=1}^{n} g_i}; \quad h_L = \frac{\sum_{i=1}^{n} f_i g_i \bar{h}_i}{\sum_{i=1}^{n} f_i g_i}; \quad (XX) = \begin{vmatrix} n & \sum_{i=1}^{n} X_1 & \sum_{i=1}^{n} X_2 \\ \sum_{i=1}^{n} X_1 & \sum_{i=1}^{n} X_1^2 & \sum_{i=1}^{n} X_1 X_2 \\ \sum_{i=1}^{n} X_2 & \sum_{i=1}^{n} X_2 X_1 & \sum_{i=1}^{n} X_2^2 \end{vmatrix}$$

$$\hat{V} = \frac{\pi}{40.000} DAP^2 \left[\hat{\beta}_0 (h_2 - h_1) + \hat{\beta}_1 \left(\frac{h_2^2 - h_1^2}{2H} \right) + \hat{\beta}_2 \left(\frac{h_2^3 - h_1^3}{3H^2} \right) \right]; \quad H = L_1 \pm L_2; \quad H = H_L \cos(\theta)$$

$$\hat{\beta}_0 = \bar{Y} - \hat{\beta}_1 \bar{X}; \qquad \hat{\beta}_1 = \frac{\sum_{i=1}^{n} X_i Y_i - \frac{\sum_{i=1}^{n} X_i \sum_{i=1}^{n} Y_i}{n}}{\sum_{i=1}^{n} X_i^2 - \frac{\left(\sum_{i=1}^{n} X_i \right)^2}{n}}; \quad SQTot. = \sum_{i=1}^{n} Y_i^2 - \frac{\left(\sum_{i=1}^{n} Y_i \right)^2}{n}; \quad d_q = \sqrt{\bar{d}^2 + s^2}$$

$$SQReg. = \hat{\beta}_1^2 \left(\sum_{i=1}^{n} X_i^2 - \frac{\left(\sum_{i=1}^{n} X_i \right)^2}{n} \right) \quad \text{ou} \quad SQReg. = \hat{\beta}_1 \left(\sum_{i=1}^{n} X_i Y_i - \frac{\left(\sum_{i=1}^{n} X_i \right) \left(\sum_{i=1}^{n} Y_i \right)}{n} \right)$$

$$\hat{h} = \frac{-\hat{\beta}_1 H - \left[\left(\hat{\beta}_1 H \right)^2 - 4\hat{\beta}_2 \left(\hat{\beta}_0 H^2 - \left(d^2 H^2 / DAP^2 \right) \right) \right]^{\frac{1}{2}}}{2\hat{\beta}_2}; \quad R^2 = \frac{SQ\,\mathrm{Re}\,g.}{SQTot.} 100; \quad S_{y.x} = \pm\sqrt{QM\,\mathrm{Re}\,s}$$

$$\hat{\beta} = (X'X)^{-1} X'Y; \quad SQReg. = \hat{\beta}' X'Y - C; \quad C = \frac{\left(\sum_{i=1}^{n} Y_i \right)^2}{n}; \quad (XY) = \begin{vmatrix} \sum_{I=1}^{n} Y \\ \sum_{I=1}^{n} Y X_1 \\ \sum_{I=1}^{n} Y X_2 \end{vmatrix}$$

$$\frac{d}{L} = \frac{D}{R}; \quad G/ha = NK; \quad K = 2500 \left(\frac{d}{L} \right)^2; \quad R = \frac{D}{0{,}02\sqrt{K}}; \quad N/ha = \frac{K}{g}$$

$$ICA = Y_{(t+1)} - Y_t; \quad IP = Y_{(t+n)} - Y_t; \quad IMA = Y_t/t; \quad IPA = (Y_{(t+n)} - Y_t)/n$$