Storage of Seeds from Tropical Legumes Used in Cuban Livestock Production Systems

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Key points : The effect of storage duration , under farm conditions , on the deterioration of seeds from *Erythrina berteroana* , *Albizia lebbeck* , *Gliricidia sepium* and *Bauhinia purpurea* , was studied . For each species , a simple classification design was used with four replications of 100 seeds each . The viability (%) and germination (%) were determined , which analysis was carried out through the variance analysis and the matrix of multiple comparison of means of Student Newman Keuls (SNK) of SAS® . Germination in *Erythrina* showed a significant increase during the study (from 20% in 0 month to 68% in 12 months) , while *Albizia* exhibited variable performance ; in both species the viability decreased , but even in the final evaluation it still exceeded 80% . The age of the seeds from *Erythrina* and *Albizia* was determined to have influenced the impermeability of the seed coats and thus their high survival . Germination and viability values for *Bauhinia* and *Gliricidia* were similar and decreased significantly during the storage . *Bauhinia* seeds evaluated at 11 and 9 months had lower quality while *Gliricidia* seed reached physiological death at 7 months confirming both species deteriorate at an accelerated rate during storage under ambient conditions .

Key words : legumes , storage , deterioration , viability

Table 1 *Climatic factors of the storehouse under ambient conditions .*

	Maximum	Minimum	Mean
Temperature (℃)	30.7	17.5	23.6
Relative humidity (%)	98.6	50.7	81.1

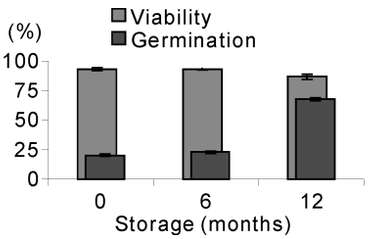

Figure 1 *Germination and viability of the seeds of E . berteroana during storage under ambient conditions . The data dots indicate the mean of the four replications in each evaluation and the vertical bars the standard error (± ES) .*

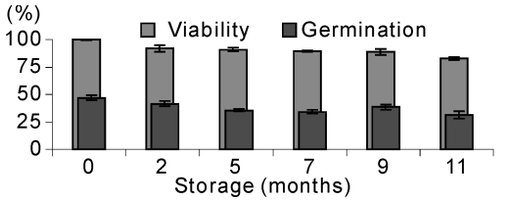

Figure 2 *Germination and viability of the A . lebbeck seeds during storage under ambient conditions . The data dots indicate the mean of the four replications in each evaluation and the vertical bars the standard error (± ES) .*

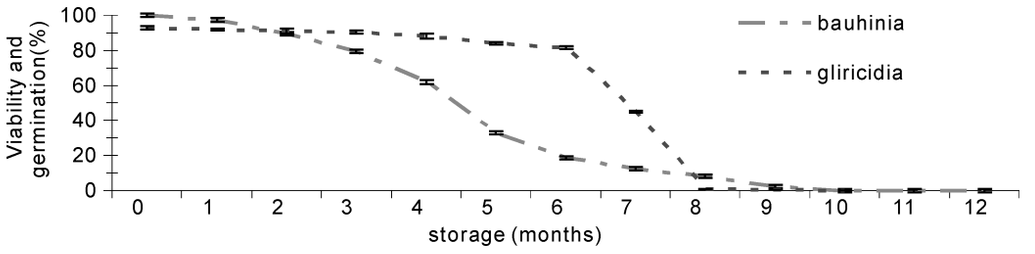

Figure 3 *Variations of the germinative capacity of the seeds from B . purpurea and G . sepium during storage under ambient conditions . The data dots indicate the mean of the four replications in each evaluation and the vertical bars the standard error (± ES) .*