Shorea assamica

Collecting partner	Jayanthi Nadarajan and Daniel Baskaran Krishnapillay Forest Research Institute Malaysia (FRIM) Kepong 52109 Kuala Lumpur Malaysia									
Collection date	12 April 2000									
Seed source	Ulu Tranum Forest Reserve Bentong, Pahang (one tree)									
Initial trials										
Initial germination	100%									
Initial mc (before extraction)	47.87%									
Initial mc (after extraction)	47 %									
Component	Fruit		Whole seed		Seed coat		Embryo		Storage tissue/ cotyledons	
Mc (%)	63.00		57.00		31.22		76.10		45.16	
Desiccation trial										
Mc (%)	45.11		43.60		31.34		28.76		19.59	11.27
Germination (%)	**92**		**85**		**82**		**80**		**47**	**0**
Mc of control (%)	47.07		46.21		45.24		44.89		46.20	45.27
Germination of control (%)	**95**		**95**		**96**		**97**		**85**	**65**
Storage trial (Malaysia)										
Storage duration (weeks)	2	4	6	8	10	12	14	16	18	20
Mc (%) after storage at 25°C, initial mc = 42%	43.72	37.25	35.07	33.85	33.29	31.47	23.26	17.02	10.36	8.25
Germination (%)	**92**	**84**	**80**	**78**	**76**	**66**	**58**	**28**	**0**	**0**
Mc (%) after storage at 25°C, initial mc = 47%	47.3	44.9	43.2	40.7	38.6	32.8	25.1	19.1	15.7	12.5
Germination (%)	**94**	**90**	**92**	**82**	**78**	**62**	**54**	**28**	**0**	**0**
Mc (%) after storage at 16°C, initial mc = 42%	42.8	44.9	40.9	38.5	36.8	38.3	27.1	18.4	11.2	10.1
Germination (%)	**96**	**90**	**88**	**86**	**76**	**68**	**60**	**34**	**0**	**0**
Mc (%) after storage at 16°C, initial mc = 47%	46.8	44.6	40.4	39.7	36.4	31.6	27.4	23.0	17.9	11.1
Germination (%)	**96**	**92**	**86**	**82**	**70**	**62**	**58**	**44**	**32**	**0**
Comments and conclusions	Germination declined significantly when the seeds were dried down to 19% moisture content and below, the critical moisture content seems to be between 20 and 29%. Germination percentages stay high, above 60%, for 3 months. Thereafter, viability drops. Moisture contents decrease throughout the storage period, and after 16 to 18 weeks it has dropped below the critical level identified at the desiccation trial. The number of presprouted and dead seeds increase during storage, after 20 weeks approximately 40% of the seeds had presprouted.									