

Vatica astrotricha

Collecting partner	Dr. Xiaofeng Wang College of Biotechnology South China Agricultural University Guangzhou 510642 China					
Collection date	August 15 th 2001					
Seed source	Jian Feng Ling, Ledong County, Hainan Province, China					
Initial trials						
Fruit weight \pm SD	0.26 \pm 0.09 g					
Seed weight \pm SD	0.12 \pm 0.07 g					
Initial mc(%)	55.2 \pm 5.2					
Initial germination (%)	56 \pm 16.3					
Desiccation trial						
Mc after desiccation (%)	46.6	42.2	38.8	33.1	22.3	8.1
Germination (%)	46	59	64	45	18	0
Mc of control (%)	47.4	49.6	48.5	51.4	50.0	51.2
Germination (%) of control	68	40	34	54	48	59
Storage trial						
Mc before storage (%)	55.2	51.7	49.1			
Storage at 25°C						
Mc after 1 month of storage (%)	43.0	44.5	39.6			
Germination after 1 month of storage (%)	62	69	69			
Mc after 3 months of storage (%)	-	22.6	39.5			
Germination after 3 months of storage (%)	-	1	14			
Mc after 6 months of storage (%)	41.4	21.9	36.8			
Germination after 6 months of storage (%)	0	0	0			
Storage at 15°C						
Mc after 1 month of storage (%)	47.2	43.5	32.4			
Germination after 1 month of storage (%)	1	0	0			
Mc after 3 months of storage (%)	53.9	51.1	32.8			
Germination after 3 months of storage (%)	0	0	0			
Mc after 6 months of storage (%)	40.9	39.9	30.9			
Germination after 6 months of storage (%)	0	0	0			
Storage at 5°C						
Mc after 1 month of storage (%)	49.8	41.7	27.4			
Germination after 1 month of storage (%)	2	1	0			
Mc after 3 months of storage (%)	43.8	31.2	24.7			
Germination after 3 months of storage (%)	1	0	0			
Mc after 6 months of storage (%)	38.1	29.4	22.7			
Germination after 6 months of storage (%)	0	0	0			

<i>Comments and conclusions</i>	<p>Seeds collected seemed to be at different stages of maturity. They lost viability rapidly at moisture contents below 38.78%. Thus seeds of <i>Vatica astrotricha</i> are recalcitrant with a critical moisture content of about 39%. Storage trial showed that 5°C and 15°C are not suitable for <i>Vatica astrotricha</i>. 25°C was better than 5°C and 15°C. After storage for 1 month at 25°C, the germination percentage of seeds at three different moisture content levels before storage did not decrease and there was little difference between them. However, after storage for 3 months at 25°C, the germination percentage decreased dramatically and the seeds with moisture content of 49.08% before storage had higher viability. After storage for 6 months at different temperatures, all seeds lost their viability.</p>