

### ***Abstract***

*Zanthoxylum gillettii* is an indigenous tropical tree species that is valued for its structural timber, agroforestry and medicinal properties. Seed of many *Zanthoxylum* species have been reported to have poor germination. The study investigated the germination of fresh *Z. gillettii* seed harvested at two maturity stages, green and red (ripe) follicles, and harvested from two provenances: Kakamega and Koiwa in November and December 2006, respectively. Follicles were dried at controlled temperature of 20°C and relative humidity of 20%. During harvesting, Satinwood seed had high MC of 26%, which decreased to 12% after processing and drying. Seed dried to 12.5% MC were divided into two: one seed lot remained unwashed while the other was washed with sodium hydroxide (NaOH) solution. Unwashed seed from Kakamega and Koiwa provenances sown on sand in the glass house gave a germination of 3 and 8%, compared to seed washed with NAOH solution which germinated up to 10 and 23%, respectively, by the 17th week. Washed seed sown on 1% agar in incubators at various constant temperatures (20, 25, 30, and 35°C±1) and alternating temperatures (20/30°C and 15/35°C±1) recorded poor germination of less than 3%, probably due to the presence of chemicals which inhibited germination. These findings suggest that the hard seed coat and oil on the testa influence seed germination and possibly contribute to dormancy exhibited by *Z. gillettii* seed. Germination of seed from mature green and ripe fruits was similar and therefore *Z. gillettii* fruits should be harvested when they start to ripen. African Satinwood seed should be washed with soap solution to remove the oil film and fruit appendages on the testa before incubation. These results are still low and there is need for further investigation to improve germination of *Z. gillettii* seed.