*Short Communication*

# Observation on the Fruit and Seed Germination of *Xylocarpus granatum* Keoning

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The genus *Xylocarpus* (Family : Meliaceace) is represented by five species, namely X. *australisicus* Raidley, *X. granatum* Koening, *X. moluccensis* Lamk. Roem, X. *gangeticus* Parkison and X. *parvifolius*, and they are distributed in the tropical mangrove forests (Saenger *et al.* 1993). The two species *X. granatum* and *X. moluccensis* are found also in the Sundarbans, Khulna (Chaffey and Sandom 1985) and Chakaria Sundarbans of Chittagong (Brandis 1906, Troup 1921).

All the five species are found in West New Guinea, North East Guinea, Papua, Bismarck Achipelago and the Solomon Islands including Kenya (Diop 1993). Troup (1921) reported that *X. granatum* occurs in Indian Peninsula, Sundarbans, Chittagong, Myanmar, Sri Lanka, Andamans extending to Malay Archipelago, Africa and Australia. It hardly forms a pure zone and is found in between *Rhizophora* and *Avicennia* zone (Das and Siddiqi 1985). Percival and Womersley (1975) reported that *X. granatum* grows towards the back of mangrove along the coast line which is flooded by spring tide and exceptionally high tides. Hong (1984) noted that *X. granatum* grows within halophytes and in mudflats of canals and creeks.

*Xylocarpus* species including *X. granatum* is used for various purposes, for example, fuelwood, boat building, house posts and making furniture etc. (Sastri 1950, Das and Siddiqi 1985). The seeds are used to treat stomach problems and the fruit pulp to cure rashes (Diop 1993). Its fine textured deep red wood is used in statue carving (FAO 1982). Considering its importance in pilot plantation, asthetic value of fruits and utility of trees, it is necessary to explore the actual fruit collecting time for raising seedlings for plantation.

The present paper reports the fruit ripening period of *X. granatum* and some related information on seed and seed germination. In the first week of March some mature fruits of *X. granatum* were found in the forest floor and on trees at Katka Game Sanctuary at Compartment 6 of the Sundarbans (Emdad Hossain 1994). The globose fruits were collected for the study. They were found light yellowish red to brownish and vertically stripped with dark brownish colour. The horizontal diameter of fruits ranged from 10 to 15 cm. Ten days after collection, the fruits were found to split into 3-4 parts, each containing two or three seeds. The seeds were dark brown, and one kilogram semi dried seeds contains 6-7 seeds. The average weight of epicarp was 350 ± 280 gm with a range of 180 to 630 gm.

The average seed weight was found to be 125 gm. The weight of big, medium and small seeds were 140.98±10.73, 106±12.03 and 61.92±4.43 gm respectively. The seed width in convex and concave sides were around 5.7 and 7.0 cm respectively. In the nursery of Banglaesh Forest Research Institute, the seeds were sown in 30 cm x 20 cm polybags with loamy soils, and watered regularly. Initially polybag soil has been moistened with 0.2% sodium chloride solution. After seventh day, seeds were started to germinate. The seedlings were succulent and growth was fast. On the 50th day, the average height of twenty four seedlings was 100 cm. The germination was 80%. The seedlings were transplanted 60 days after germination in a moist environment.

The above findings showed that germination percentage and height growth of the seedlings were better than those found by Siddiqi *et al.* (1993). They also reported that June-July is the fruit collecting time of the species as reported by Troup (1921). But in the present observation the ripening of fruits of the species was found to be in March. As no information is available on the time of fruit ripening in March, it seems that the species is likely to have two flowering and fruiting times. Further study is needed to confirm this aspect.

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