THE IMMIGRANT ECONOMIC PLANTS OF INDIA

I. Anacardium occidentale Linn.

BY DR. K. M. SEBASTINE
(Botanical Survey of India)
Received October 7, 1955
(Communicated by Dr. E. K. Janaki Ammal, F.A.Sc.)

INTRODUCTION

Anacardium occidentale, commonly known as the Cashew-nut tree, was introduced into India by the Portuguese in the sixteenth century and it became naturalised in the Malabar Coast, the area of their supremacy in India. It was described by Van Rheede (1682), Governor of Malabar, in Hortus Malabaricus which is the second scientific work on the Flora of India and published from Amsterdam. This description includes an excellent plate of A. occidentale under the name 'Kappamave' meaning ship mango, as the tree was known in Malayalam (Fig. 1). Later Rumphius (1750) described it in his Herbarium Amboinense. Jacquin (1763) in Stirpium Americanarum Historia has given an account of A. occidentale from America. Gabriel Soares de Souza, one of the earliest chroniclers of Brazil, found the tree growing both wild and cultivated on the coast of Bahia in the 16th century. According to Dymock, Warden and Hooper (1890) there were only a few trees in the Malabar Coast in 1653 A.D. while they were abundant in Goa.

The genus Anacardium belongs to the family Anacardiaceae. It comprises 8 species. The species Anacardium occidentale Linn. has two varieties as described by De Candolle (1825) in the light of the descriptions made by Rumphius and Jacquin and also after observing the herbarium specimens.

(1) "Var. Americanum, where the fleshy peduncle is about ten times bigger than the nut, the longer filament deprived of anther with somewhat dilated apex. It occurs in the West Indies, Mexico and South America."

(2) "Var. Indicum, where the peduncle is scarcely three times bigger than the nut. The longer filament adorned with thick anther, the rest more or less poorly developed; occurs in the East Indian Islands." De Candolle doubted whether this was a descendant of the American plant or the same species. He was not sure either whether the character of the stamen which he had observed from the herbarium was constant.

Anacardium occidentale is a middle-sized tree, generally 8–16 m. in height. The bark of the tree is thick, round and scaly. The tree produces stout
branches which spread in every direction. *Leaves* simple, alternate, coriaceous, obovate, 12·5-15 cm. in length, both surfaces glabrous, secondary veins very conspicuous, about 8-12 pairs, petiole 12-16 mm. long. *Flowers* small, in large terminal panicles 15-25 cm. long with prominent bracts. Calyx slightly hairy, sepals 5, imbricate. Petals 5, imbricate, pale yellow in colour streaked with pink, linear lanceolate, revolute, slightly hairy on the outside. Stamens generally 10, one longer than the others; they are all fertile or some sterile. Ovary 1-celled with filiform excentric style having a very small stigma. The ovule is solitary ascending from a lateral funicle. *Fruit* a kidney-shaped nut 12-18 mm. in length supported by a fleshy body which is 5-8 cm. long and coloured like an apple red and yellow, formed of the enlarged disk and top of the peduncle. The fleshy portion is very juicy and may be termed Cashew-apple. It has got a skin which is a thin membrane, easily broken. The fruit contains a single seed; the pericarp contains sacs or cells filled with acrid oil; the seed itself is kidney-shaped, testa membranous, adherent; cotyledons semilunar, radicle short, hooked.

The chromosome number of *A. occidentale* was first recorded by Dr. E. K. Janaki Ammal (1945) as $2n = 42$ (Fig. 2).

**Distribution**

The genus *Anacardium* belongs to Tropical America and is indigenous to Brazil, Guiana, Amazon and West Indies. *A. occidentale* is indigenous to West Indies. Huber (1904) considered it indigenous on the plains and dunes of the lower Amazon region and North Brazilian Coast. He thought that it was probably introduced into the West Indies by the Indians who reached those islands from the South American mainland before the arrival of the Europeans.

Being the most economically important among other species of the same genus it spread in the tropical regions of Mexico to Peru, Brazil and Costa Rica (Pittier, 1908). It is grown in Bermuda (Britton, 1918), Florida, coastal regions of Africa, Madagascar and Mozambique. It also occurs in South East Asia from Ceylon to the Philippine (Burkill, 1935). In India besides Malabar (Gamble, 1915-35) including Travancore-Cochin, it has become naturalised in the central regions of India, Chittagong, Tenaserim, and in Andaman Islands. It is cultivated in Ratnagiri, N. Kanara, Goa, Mysore, Bengal (Midnapore) and Orissa (Puri, Ganjam and Balasore), Guntur, Godavari and Vizagapatam Districts.

*A. occidentale* is known by different names in the various languages. The Portuguese called it 'Caju'. This name came from the Tupi name