

The Macadamia Nut in Hawaii

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The macadamia nut (*Macadamia ternifolia*, F. Muell.), also known as the Queensland nut, is a native of Australia, and was named for Dr. John Macadam, President of the Philosophical Institute of Victoria, Australia, some 85 years ago. It is the best known species of a small Australian genus belonging to the family **Proteaceae**.

It is a subtropical, evergreen tree which is spreading, globular and reaches a height of some 20 to 30 feet under cultivation. Its leaves are oblong or lanceolate, serrate or entire, and from a few inches to 1 foot in length. The macadamia flower is a raceme almost as long as the leaves. Its fruit is a nut consisting of a two-valved exocarp (husk), and



Fig. 1. Fruiting branch with clusters of macadamias.

Photo—Hawaii

a thick very hard endocarp (shell) which encloses one round or two hemispherical seeds (kernels).

The nut is about 1 inch in diameter and very difficult to crack. However, in recent months a specially designed machine has been developed that makes cracking easy. The kernel of the macadamia is about $\frac{1}{2}$ inch in diameter, white, crisp, tasty, and resemblingly the Brazil nut in flavor, but milder and almost bland when eaten in the natural state. In Hawaii it is Frenchfried to give a very delicious mellow product comparable to our finest almonds, peanuts and pecans. Hawaiians think enough of the macadamia to pay \$2.05 for a 12-ounce bottle in the retail stores in Honolulu.

The macadamia tree prefers a deep rich loam soil and lots of moisture, although it has been successfully grown in California with little water. It is a slow grower and takes from 8 to 9 years to come into bearing. The nuts are produced commercially mainly in Australia and Hawaii. Of the approximately eighty varieties of macadamia known only five are grown in Hawaii: Pahau, Keauhou, Nuuanu, Kakea and Kohala.

The first macadamia tree was planted in the Hawaiian Islands in 1892. In 1922 the Hawaiian Macadamia Nut Company was organized. The Honokaa Sugar Company began production in 1926. These two companies shipped 22,845 pounds in

1942. Although production now exceeds 190,000 pounds a year, very few macadamias reach the mainland of the United States. This situation is expected to change materially in the future, in view of an investment of $1\frac{1}{2}$ million dollars in this industry by Castle and Cooke, one of Hawaii's oldest and largest business concerns.

In 1948 Castle and Cooke bought 1000 acres of marginal land in the islands and started clearing and planting operations. This year they bought another 2000 acres. By 1954,

Fig. 2. Grafting macadamia seedlings in the nursery.



Photo—Hawaii



Photo—Hawaii

Fig. 3. Macadamia orchard of Castle & Cooke, Ltd., on island of Hawaii

1000 acres will have been planted to macadamias, and by 1959 the company hopes to start marketing an annual crop of 5,000,000 pounds of nuts (in the shell). A strong educational program is expected to precede introduction to mainland United States markets.

The macadamia is promising for subtropical areas of southern United States, Mexico, and Cuba. Experiments were started last year to determine its possibilities on the West Coast, and California may some day be competing with Hawaii in its production.

Short Prunings

The Proceedings of three A.P.S. conventions should reach members within the next month. The 1952 Proceedings will be in a large issue

of the fast-edited **Virginia Fruit**, coming out almost simultaneously with the volume containing the combined Proceedings of the 1950 and 1951 conventions.