



Inrtoduction

Banana is one of the major fruits grown in Kenya, accounting for 32.73% of all fruits produced in the year 2020. The fruit is an important food source and provides income generation, especially for smallholder farmers. Dessert bananas are mainly consumed when ripe and are a good source of vitamins A, B6, C, and potassium. In addition, the ripe fruits can be processed into flour, canned slices, jam, jelly, puree, vinegar, wine, and beer. During drought, banana leaves and pseudo-stems are used as cattle feed. Leaves are also used as packing and roofing materials.

The optimal ecological requirements for dessert bananas are an altitude of 0-1,800 masl, a rainfall range of 1,000-2,000 mm/year that is well distributed, a temperature of 27-30°C, and deep, well-drained soils with a pH of 6.0-7.5. In addition, the crop is sensitive to strong wind, hence the need for windbreaks. Research has indicated a growing demand for dessert bananas with desirable characteristics, especially in urban towns and hotels. The common dessert cultivars include; Gross Mitchel, Apple, Giant Cavendish, Dwarf Cavendish, Williams's hybrid, Grand Nain, Valery, Lacatan, and Ugandan Red among others.

Selected banana dessert varieties and their attributes

Grand Nain

Grand Nain is an early-maturing and high-yielding dessert banana variety (13 tons/acre). It yields a bunch weight of 30 - 45 kg after 18 - 22 months. The variety is adapted for growth in a wide range of agro-ecological zones, where the altitude ranges from 0 to 1,700 m, the rainfall requirement ranges from 900 - 1800 mm per year, and optimum temperatures range from 24 to 30°C. The variety requires well-drained, deep soils with a pH of 5 - 6.5. Grand Nain has well-spaced fingers, turns yellow after ripening, and has a sweet flavour.





Grand Nain banana variety

Dwarf Cavendish

Dwarf Cavendish is a smaller variety of the Cavendish banana, also known as "Lakatan." It is an early-maturing variety (18 to 24 months) that does well at an altitude of 0-1800 m and a rainfall range of 1000-2000 mm per year. It is high-yielding, with a bunch size of 30 kg, and yields about 13 tons/acre. It is short in height (2 m) and can perform well under unreliable rainfall. It has a long shelf life and is firm after ripening. It has a good flavour, hence the high market demand. Its characteristic features include resistance to Fusarium wilt and wind damage.



Dwarf Cavendish banana variety

Valery

Valery banana variety is dessert-type. It is early maturing (18 to 24 months), tolerant to Panama wilt disease, and high yielding (yields about 13 tons per acre). The variety is tall, with a strong pseudo-stem. The banana yields a big bunch that can attain up to 30 kg, with fingers that are green and yellow when ripe. The banana variety is sweet with a desirable flavour. It does well at an altitude of 0 - 1800 m and a rainfall range of 1000 - 2000 mm per year. It has a long shelf life with a suitable range for the highlands (climatic conditions and response to irrigation).



Valery banana variety

Williams

Williams banana variety is a dessert type known for its excellent taste. It does well at an altitude range of 0 - 1800 m and a rainfall range of 100 - 2000 mm per year. It is early maturing (18 to 24 months), diseasetolerant, and high-yielding with medium to long fingers. The variety yields 30 kg per bunch, about 13 tons/acre. It can withstand dry periods and still produce optimally, making it a viable option for adapting to climate change. Williams is a variety of choice, given its suitability for the highlands, favorable response to irrigation, long shelf life and firmness after ripening, which contributes to its high market demand. Its characteristic features include resistance to Fusarium races 1 and 2.



Williams banana variety. Photo by: Wasilwa L., 2023

Giant Cavendish

The Giant Cavendish banana variety is tolerant to Panama disease and drought. However, it is susceptible to black Sigatoka disease. It has a strong pseudo-stem and requires propping. The variety matures after 18 to 24 months and has medium to long fingers. It does well at altitudes of 0 - 1800 m and in a rainfall range of 1000 - 2000 mm per year. Its fruits have a long shelf life, are firm after ripening, and have a good taste, hence the high market demand. It yields 30 kg per bunch, approximately 30 tons/acre.



Giant Cavendish banana variety

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KALRO/NAVCDP/BANANA/ Pamphlet No. 130/2024