

DASHEEN

OVERVIEW

Dasheen plants also known as taro, blue food, kalo or elephant ears due to the shape and size of its leaves is one of the root crops cultivated in the English-speaking Caribbean islands. Evidence provides that dasheen has been cultivated since the early 1700s, arriving with the trans-Atlantic slave ships that carried African culinary culture and knowledge about environmentally sustainable agriculture (Ewing-Chow, D. ,2020).

The Dasheen plant is a tall, herbaceous perennial tropical plant that resembles the ornamental elephant ear plant, with huge heart-shaped leaves on long petioles that radiate out from an upright tuberous rootstock or corm. The corm has brown rigid outer layer, but the interior flesh is white to pink. As a root tuber, there is a central corm and smaller tuber that form from the central corm, referred to as cormels.

Jamaicans primarily consume the corm of the dasheen plant; it is prepared through boiling and usually complements green bananas, dumplings, and other ground provisions such as yams with different meat kinds. Despite Jamaicans only eating the corm of the dasheen plants, there are other cultures that consume both the corm and the leaves of the dasheen plant. For example, a major part of both national dishes for Trinidad and Tobago and Dominica is the leaves of the plants, referred to as callaloo.

PRODUCTION

Dasheen is a fast-growing crop that matures within 9 months, but sun exposure, temperature and water availability will affect the total yield and time taken to reach maturity. However, dasheens are resilient, they have the ability to transfer oxygen from the leaves to the roots which provides the plant with the extra capacity to withstand waterlogging.

For optimal production, dasheens should be cultivated on deep sandy loam soils, with good fertility and pH range of 5.5 to 6.5. It requires temperatures between 21 °C and 27 °C (hot and humid) with at least 2500 mm to 3675 mm of annual average rainfall.

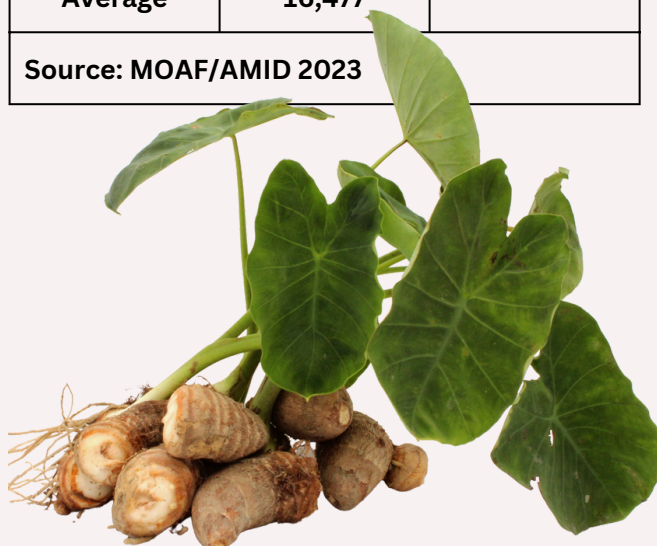
According to AMID (2023), trends in local production for dasheens continue to grow upward, indicated by the 8.3% growth achieved in 2022 with 18,077 metric tonnes from 16,689 metric tonnes in 2021. Local production in 2022 was also the highest figure recorded for dasheen production over a 10-year period. 2020 recorded a major decrease of 12.6%, a likely consequence of the COVID 19-pandemic. Nevertheless, local production recovered with 16,689 metric tonnes, a 15.3% increase the following year 2021.

The success of local dasheen production could be attributed to the Production Incentive Programme (PIP). The initiative sought to increase dasheen output in the traditional growing areas, hence a total of 154,275 suckers have already been distributed to farmers along with clean planting supplies and herbicides.

Table 1: Dasheen Production 2018-2022 (MT)

Year	Production	% Change
2018	16,593	10.4
2019	16,556	-0.2
2020	14,471	-12.6
2021	16,689	15.3
2022	18,077	8.3
Average	16,477	

Source: MOAF/AMID 2023



VARITEIS

Based on the conditions in which they grow, dasheens are divided into two groups: **dryland and wetland**.



Wetland Dasheens are produced in highland areas with considerable annual rainfall, like Portland. They produce many cormels which are used as planting material. However, these cormels are broken off during harvest, leaving wounds that act as entrances for pathogens, resulting in spoilage. Therefore, reducing the shelf-life of wetland dasheens.

Dryland varieties are produced in highland locations such as Clarendon and portions of Manchester. Unlike wetland dasheens, dryland dasheens produce fewer cormels, so the tops are cut and kept for planting materials. Wounds received tend to heal quickly making them less susceptible to spoilage and having longer shelf life, hence exporters prefer this variety.



PROFITABILITY

Table 2. Per cent mark-up of Farm-gate Price (FGP) on Cost of Production (COP)

	C.O.P (\$/kg)	FGP (\$/kg)	% Mark up
Dasheen	56	207.56	270.6

Source: MOAF/AMID 2022

In 2021, the cost of production for dasheen was JM \$56 per kg and the farm-gate price was JM \$207.56, representing an approximate mark up of 270.6% on farm-gate price over variable cost of production for 2021.

The projected marketable yield (Kg) to be expected from a 1-acre dasheen farm is 6,883 kg, therefore farmers under favourable conditions can expect a gross revenue of JMD 1.4 million and a net revenue of JMD 1.1 million after harvest. Dasheen farming may guarantee a Return on Investment (ROI) of 288%.



EXPORT

Table 3 reveals that Jamaica exports on average, 650.17 Metric tonnes (MT) of dasheen annually at an average value of US\$CIF 1.77 million. Throughout the 5 years (2017-2021) dasheen exports experienced 2 consecutive declines in 2019 and 2020. Similar to that of dasheen production, exports suffered losses due to the onset of the COVID-19 pandemic. Also, like production, exports recovered the following year in 2021 with a 24.87% increase, which indicates an increasing demand for dasheen internationally.

Table 3: Annual Weight (MT) & Value (US\$CIF) of Exported Dasheen

Year	MT	US\$CIF	% Change MT
2017	623.45	1,489,635.09	2.3
2018	719.95	1,875,266.42	15.48
2019	640.66	1,852,743.87	-11.01
2020	563.33	1,780,355.06	-12.07
2021	703.44	1,872,339.55	24.87
Average	650.17	1,774,068.00	

Source: STATIN 2022

Table 4: Top 5 Export Destinations for Dasheen for (US\$CIF)

Destination	US\$CIF	%
U.S.A	5,568,099.77	62.77
Canada	2,964,426.71	33.42
Cayman Islands	197,294.65	2.22
United Kingdom	124,261.05	1.40
U.S Virgin Islands	7,398.20	0.08

Source: STATIN 2022

Table 4 displays the ranking of a 5 year (2017-2021) US\$CIF total contribution to dasheen exports by destination country. The United States and Canada are the highest and most consistent contributors to local dasheen exports, accounting for 63% and 33% respectively.

WHY INVEST IN DASHEEN PRODUCTION ?

- **Production Incentive Programme (PIP) - A total of 154,275 suckers have already been distributed to farmers along with clean planting supplies and herbicides through PIP.**
- **Available and Increasing Demand locally and the diaspora**
- **Can be cultivated in various climatic conditions**
- **The entire plant is useful**
- **High Yielding**



Value Added Products

