



WHAT IS NUTREEFARM AGRICULTURAL COMPANY

NutreeFarm Agricultural company got formed in 2016 in Pune India. Company is partnered with Allesbeste Nursery in South Africa to provide high quality Avocado plants in India. The main licensing agreement is signed between Nutreefarm and Allesbeste Nursery and hence the sub licensing agreement between Nutreefarm and Farmer in India will be signed for trial basis plantations.

ABOUT THE MALUMA CULTIVAR

Maluma is in most regards a very easy cultivar for the farmer to manage. Maluma lends itself well to many different cultivation practices, methods and theories. Maluma needs no more attention in respects to cultivation than any other cultivar and is no more sophisticated. This cultivar is in most respects even less complicated than Hass and Fuerte with respects to spraying and pruning. Even though Maluma is a “hass-type” it cannot be snap picked as with Hass.

VARIETIES

Rootstock	Scions	Example
Maluma	Dusa	Dusa on Maluma
Bounty	Duke 7	Duke 7 on Bounty
Pinkerton	Maluma	Bounty on Maluma
Hass	Pinkerton	Maluma on Pinkerton

THE KEY SUCCESS FACTORS FOR THIS CULTIVAR



- Maluma fruit colors more consistently and beautifully, when ripened than Hass and also ripens more consistently.
- Maluma’s flesh to stone ratio is also very favorable.
- At the same moisture content than Hass, Maluma’s Oil content is higher.
- Maluma contains less fiber than Hass
- Less susceptible to lenticel damage
- Maluma is magnificent in Ripe & Ready programs
- Maluma seems to be colder tolerant during the cold-chain than other Cultivars
- Fruit have a natural gloss
- Fruit production tend to peak on larger sizes compared to Hass

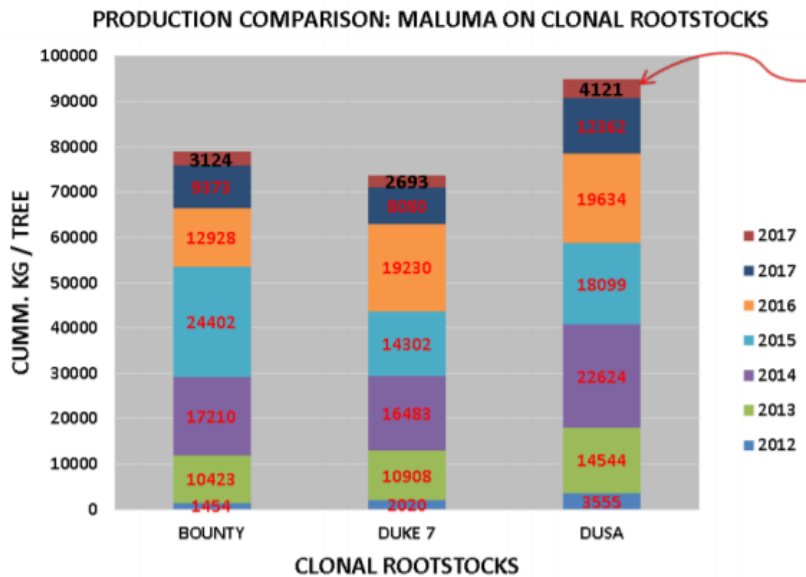


CHARACTERISTICS

CHARACTERISTICS	MALUMA
Race	Guatemalan with some Mexican gene
Canopy shape	Upright Triangular
Canopy structure	Central leader with lateral branching
Canopy density	Good light penetration
Growth vigor	Thrifty
Growth manipulation	Yes, Pruning without growth retardant
Plant density (manipulated)	400 – 800 / Ha
Precocity	High
Bearing pattern and productivity	Fairly constant and high
Harvest period (for export, RSA)	Week 12 - 24
Flower group	A
Fruit internal frost damage (orchard)	Moderate to none
Fruit size	150 – 400g
Fruit shape	Pyriiform
Fruit color (ripe)	Purple-black
Fruit appearance	Shiny
Seed shape	Obovate with flat base
Seed as % of total fruit volume	10 – 15%
Skin thickness	1-2 mm
Skin texture	Semi-rough, pebbly and leathery
Lenticel damage	Tolerant
Maturity	≤ 78%
Taste & flavor	Excellent, rich and tasty
Flesh color	Creamy-yellow with light green rind
Flesh texture	Smooth and Slight Fibre
Shipping and storage ability	Excellent and acceptable
Cercospera	Resistant
Anthrachnose	Tolerant
Ring neck	Less significant
Physiological disorders	Negligible if managed
Insect Tolerance	Fairly Tolerant
Orchard Cold Tolerance	Very Tolerant (no fruit damage @ -4°C)

EXPERIMENTS

Experiment 1 – Production of Maluma grafted to three different clonal rootstocks (808 trees/ha)



Cumm. Production (kg/ha)

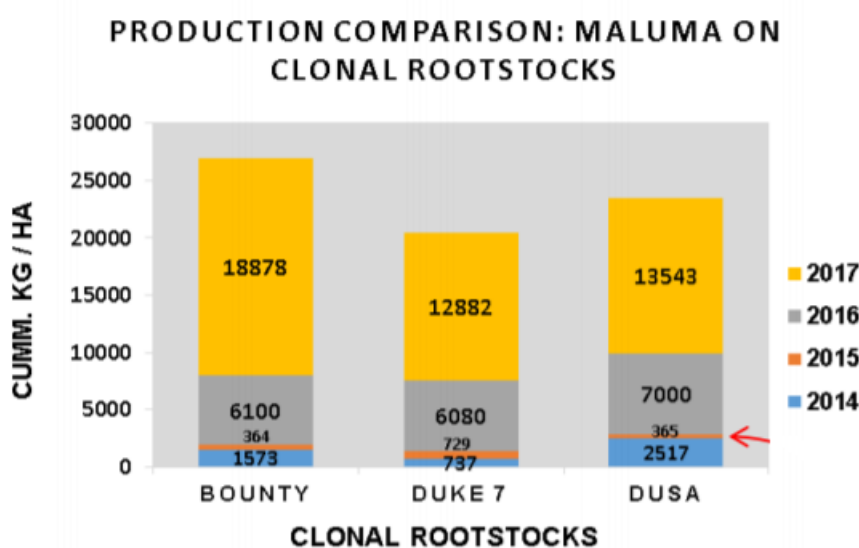
- Dusa = 94939 kg
- Bounty = 78914 kg
- Duke 7 = 73716 kg

Avg production (kg/ha)

- Dusa = 15823 kg/ha
- Bounty = 13152 kg/ha
- Duke 7 = 12286 kg/ha

Maluma grafted to clonal Dusa, Bounty and Duke 7, the highest cumulative yield was recorded with Dusa

Experiment 2 – An ultra – high density planting of 2.5m x 2.5m (1600 trees/ha) with Maluma grafted to Dusa, Bounty and Duke 7



Cumm. Production (kg/ha)

- Bounty = 26915 kg
- Dusa = 23425 kg
- Duke 7 = 20428 kg

Avg production (kg/ha)

- Bounty = 6729 kg/ha
- Dusa = 5856 kg/ha
- Duke 7 = 5107 kg/ha

Bounty outperformed Dusa and Duke 7 clonal rootstocks



HIGH DENSITY PLANTATION – Recommended

High Density Allesbeste has been trialing high density plantings for more than a decade. Their oldest groves are like old groves in California with about 50 very large trees per acre. Today, a standard planting density is about 16 feet by 16 feet (170 trees per acre). For Maluma (and Gem) most growers are reducing the between-tree spacing to about 8 feet (341 trees per acre). Standard high density plantings are going in at 6.5 feet between trees and 13 feet between rows (525 trees per acre). Ultra-high density plantings are being trialed at 8 feet by 8 feet spacing (681 trees per acre). Allesbeste also has trialed what is known as a tramline planting – a double row of closely spaced trees offset from one another with a wider between row spacing between the double rows. For example, a block originally planted at 5 meters between trees by 7 meters between rows (118 trees per acre) effectively became 5 meters by 5 meters with 236 trees per acre when a second row was planted 2 meters away from each original row. However, they have found this to be an inefficient means of increasing planting density. The closely spaced trees in the double row become difficult to manage, and if/when they grow together production is lost on the touching sides. In their experience, it is more efficient to plant the grove at 4 meters by 4 meters and achieve the same planting density while being able to manage each tree.

Avocado Yield Metrics

The following table provides an indication of achievable yields.								
Year	3 Year	4 Year	5 Year	6 Year	7 Year	8 Year	9 Year	10 Year
Yield/tree (kg)	12 kg	30 kg	38 kg	45 kg	51 kg	45 kg	51 kg	45 kg

Avocado Farming Common Questions & Answers.

Question	Answers
Flowering cycle	Once in a year
Flowering time	Winter
Harvesting time	Fruits are ready for harvest when the color of seed coat within the fruit changes from yellowish white to dark brown. Mature fruits ripen six to ten days after harvesting. The fruits remain hard as long as they stay on the trees, softening only after harvest.
Favorable temperature for flowering	For avocado trees to produce flowers, a period of about 4 weeks of relatively cool temperatures needs to occur in winter. For fruit set to occur, periods of 3 days in a row are needed at flowering time during which the temperature does not drop below 10°C
Favorable overall temperature	10°C - 40°C
Effect of heavy rains on fruits	Avocados can be grown on a wide range of soils, but they are extremely sensitive to poor drainage and cannot withstand water-logging. They are intolerant to saline conditions. Optimum range of pH is from 5 to 7. Depending on the race and varieties, avocados can thrive and perform well in climatic conditions ranging from true tropical to warmer parts of the temperate zone
Pruning season	After Harvesting



Per plant yield	The yield ranges from about 100 to 500 fruits per tree
Total grads in fruits	Grade varies based on oil content and size of the fruit. 250 to 300 grams in size & have minimum 20% of oil content are qualified as good quality avocado.
Rates as per grading	Rs 125-175 per kg. Picked from Farm.
Organic manuring possible	<p>It is very much possible - Require experiments Correct nutrition is critical but fertilizer treatments should be based on the results of regular soil and leaf analysis. In less fertile soils, soil analysis results may suggest adding lime, dolomite, phosphorus and selected trace elements before planting. If you need to apply fertilizer or manure before planting, do so 6 months before so it's broken down and taken up by the soil before planting. These fertilizers pose less risk to tree roots. You should never use nitrogen, potassium or animal manures on or just before planting. Fertilizing soon after planting can burn the tender feeder roots of the young tree.</p> <p>You should pay particular attention to levels of: nitrogen, boron, calcium, zinc & soil pH. Nitrogen encourages tree growth and canopy health. Boron is important to add before and during flowering for fruit set, calcium is important for fruit quality and zinc is an important trace element that is often deficient. Soil pH (measured in water) of about 5.5 is considered best but this level is impractical to reach in calcareous soils. Trees can grow successfully in pHs of up to about 7.5, although iron chlorosis can be an issue</p>
Main threats	<p>Root rot and anthracnose are the 2 main diseases that affect the plants a most. Fruit-spotting bug and banana-spotting bug</p>
Shelf life	30 - 40 Days - Can be increased after cold storage
Hight after pruning	10-12 feet Hight is ideal to maintain
Can it be grown under shade net house	Yes, it will help to maintain and grow.
Planting Time	Mid May- Mid June

Connect with us – Communication details

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