



TopNut

Your global Nut Specialists

MCT1 | Factsheet

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MCT1 is a new elite Australian macadamia variety expected to increase productivity by up to 50%. MCT1 is protected under the Plant Breeders Rights Act, is owned by the Macadamia Conservation Trust (MCT) and managed in Africa by TopNut. The selection originated from a seedling progeny trial in 1982 whereafter it was planted as a trial by several growers in the Gympie and Bundaberg regions in Australia. In 2017, after 20 years of sustained high productivity, MCT1 was released for commercial plantings in Australia and has been widely adopted throughout Australia's macadamia growing regions and is currently one of the most widely planted cultivars, in new plantings, in Australia.

Summary

- Precocious variety with commercial yields from year 3 to 4.
- High kernel recovery of between 42% - 50%.
- Consistent high production.
- Improved productivity and therefore profitability for producers up to 40% - 50%.
- Macadamia integrifolia (7/8) with Macadamia tetraphylla (1/8).

NOTE: Production and quality data is from the Gympie and Bundaberg orchards in Australia. At present there are no bearing trees in South Africa.

Nut characteristics:

Nut fall pattern	Middle to slightly late in the season (May to August)
Nut-In-Shell (NIS) size	Medium to slightly large
Shell	Thin and even
Nut In shell/kg	Average of 135 nuts per kg
Kernel recovery	42% - 50%
Kernel size	Moderate to large
Kernel shape	Slightly flat and uniform with satisfying sensory qualities
% whole kernel	Average 50%
Husk	Thin to very thin and even

Tree characteristics:

Tree structure	Compact with an open tree canopy The limb structure suggests tolerance to severe wind
Tree size	Small to medium sized
Flowering	Mid-season
Productivity	Very precocious and highly productive
Growth habit	Vigorous and hardy
Hybrid	Macadamia integrifolia (7/8) with Macadamia tetraphylla (1/8).





Tree Management considerations:

- Due to high crop loads, higher inputs are required.
- Irrigation is recommended in areas where rainfall is limited or unreliable.
- Trees respond well to Ethephon treatment.
- Does not appear to be susceptible to Abnormal Vertical Growth (AVG).
- Has not shown any susceptibility to husk spot.
- Appears to be resistant to pre-germination.

Pollination:

- Queensland Department of Agriculture & Forestry (QDAF) Regional Variety Trials including the MCT1 variety indicate low self-compatibility.
- Recommend planting with other varieties to optimise pollination potential.
- Existing MCT1 orchards with sustained high yields are planted with the following cross-pollinators: 741, 816, A4, A16, A203 and M500.

The combined precociousness and consistency in high yields suggests that MCT1 is able to produce an income per tree that is 40-50% higher than current commercial varieties.

Royalties:

- MCT1 is owned by the Macadamia Conservation Trust (MCT) and is protected by Plant Breeder Rights, and managed globally by the Australian Nurserymen's Fruit Improvement Company (ANFIC) Ltd.
- Royalty rates will be determined on a territory by territory basis in consultation with the global variety manager, the variety owners and the Master Licensee in that territory.
- Royalties earned by MCT are used for ongoing conservation of wild macadamia species.



Cracking the top nut

Management and Plant Breeders' rights:

- TopNut manages all aspects of the commercialisation and protection of MCT1 in Africa.
- MCT1 can only be bought from licensed nurseries.
- All scion wood provided to licensed nurseries is cut from trees that have been authenticated by DNA testing.
- Only licensed growers will be able to plant MCT1.
- Growers will need to sign a non-propagation agreement.
- Only licensed processors may process MCT1 nuts.
- Only licensed marketers may market MCT1 nuts.

Tree availability:

- TopNut has imported large quantities of scion wood from Australia and is currently propagating trees at licensed nurseries.
- A list of MCT1 licensed nurseries will be available on the TopNut website.
- Due to very high demand, supply may be limited in the short term. First trees expected to go on sale in South Africa in 2023/24.

Disclaimer:

- The information regarding MCT1 in this fact sheet is sourced from Australia (from observations in long term commercial orchards, QDAF Regional Variety Trials and ANFIC).
- Variety trials often have optimal cross pollination and therefore the results may not be replicated by producers in solid blocks with limited cross pollination.
- Although MCT1 shows very promising results, the variety has not been tested in South Africa or Africa as yet.
- Variety performance varies in different locations and it may not be suitable to all growing regions.
- TopNut provides this information as a guide only and takes no responsibility for its accuracy and for performance on individual farms.



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