

Branching and podding characteristics of 'PKM-2' Moringa oleifera

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Moringa oleifera continues to be the most-requested species in our seedbank. For those not already familiar with it, M. oleifera is a fast growing tree that originates in India and is grown throughout much of the tropics and subtropics. Used primarily as a perennial vegetable, the nutritional quality of its edible leaves, pods, and flowers is impressive. Most people in ECHO's network are interested in using the leaves, either fresh or as a dry powder, to add vitamins and minerals to local foods.

A challenge in growing *M. oleifera* for its leaves is its tendency to quickly produce a tall tree with few branches. Within a year or two, much of the leaf production can be out of reach. This is why we have advocated pruning to encourage branching and leaf production. Pinching the bud at the top of the main stem, when 75 cm (30 in) tall, promotes lateral branching and reduced tree height. Unfortunately, with most moringas in ECHO's collection, the lateral branches become almost vertical instead of horizontal. This is not good for leaf harvest (nor does it result in an attractive shade tree).

Another approach is to find a selection of *M. oleifera* with more horizontal branching. Several years ago, we set aside some land to grow out a number of moringa accessions acquired from around the world. Out of this trial, Periyakulam 2 (abbreviated as PKM-2) has emerged as a star. Figure 2 shows the trunk of a PKM-2 tree with the horizontal branching pattern we had been looking for. In the accession trial, PKM-2 trees also showed abundant branching after pruning. PKM-2 has consistently been preferred over the other accessions in our collection by those participating in taste tests of uncooked leaves.

PKM-2 was developed at the Horticultural College and Research Institute, Periyakulam, in Tamil Nadu of South India. In 2001, scientists reported that PKM-2 (plus a related variety called PKM-1, developed for extra heavy pod production) replaced about 60% of existing moringa plantings in southern India. PKM-2 was selected after crossing MP-31 with MP28.

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