


New Premium Quality Mango Genotypes for Extended Harvest Season



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Mango is an important tropical to sub-tropical fruit. It is admired globally for its delightful taste, flavour, aroma and diuretic properties. It has a unique position in Pakistan's fruit industry. It has been cultivated in subcontinent from centuries. At present, mango industry in Pakistan revolves around few commercial cultivars. These cultivars offer low yields, narrow harvesting window, alternate bearing and certain other physiological disorders.

Most of the commercial varieties of mango grown in Pakistan are midseason maturity *i.e.* from mid-July to mid-August, which asks for the introduction of new early and late season maturing varieties that will boost mango export from Pakistan. Mango industry is also affected by various insect-pests and diseases such as mango leaf hopper, mealy bug, midge, fruit fly, anthracnose, powdery mildew, malformation and decline. Occurrence of Mango Quick Wilt Disease (MQWD) (*Ceratocystis manginecans*) in various commercial mango producing areas of the country is serious threat.

Pakistan is naturally blessed with a wide range of unexplored indigenous mango germplasm. There was a need to evaluate and exploit the potential of this existing unexplored mango germplasm in the country. Therefore, a comprehensive study (Funded by PARB-150 Mango Project) was carried out to characterize and evaluate over five hundred mango germplasms/accessions on the basis of physical and bio-chemical fruit quality characteristics available in the districts of Azad Jammu & Kashmir (AJK) and Northern and Southern Punjab. Data revealed that some of the selected indigenous mango accessions such as MLT-239, MLT-240, MLT-248, MLT-369, MLT-658, KHW-250, KHW-251, RYK-265, RYK-426 and RYK-644 exhibited excellent physical and bio-chemical fruit quality characteristics. These selected accessions have shown potential as future commercial mango cultivars of Pakistan. We have released ten new mango accessions that can be future commercial cultivars of the country. This will help to diversify the mango industry that currently relies upon limited commercial mango cultivars. It will also help to widen the market window in the domestic and international markets.

Table 1. Harvest season and fruit quality of selected new potential mango accessions

Accessions/ Commercial cultivars	Harvest season	Average fruit weight (g)	Average edible contents (%)	TSS : acidity ratio	Hedonic taste scale
RYK-426	Early-Mid June	320	60	255	8
KHW-251	Mid July-10 August	362	75	172	7
MLT-239	Mid July-10 August	450	84	282	8
MLT-240	Mid July-10 August	300	86	272	8
MLT-248	Mid July-10 August	200	67	157	7
MLT-369	Mid July-10 August	210	78	276.3	8
KHW-250	10 August-Onwards	473	86	272	8
RYK-265	10 August-Onwards	210	76	165	9
RYK-644	10 August-Onwards	314	68	343	9
MLT-658	10 August-Onwards	380	84	288	9



Figure: Fruits of selected new potential mango accessions