M A N G O

R o o t s t o c k s

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STHP Team Mareeba

Mareeba team

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Queensland Government

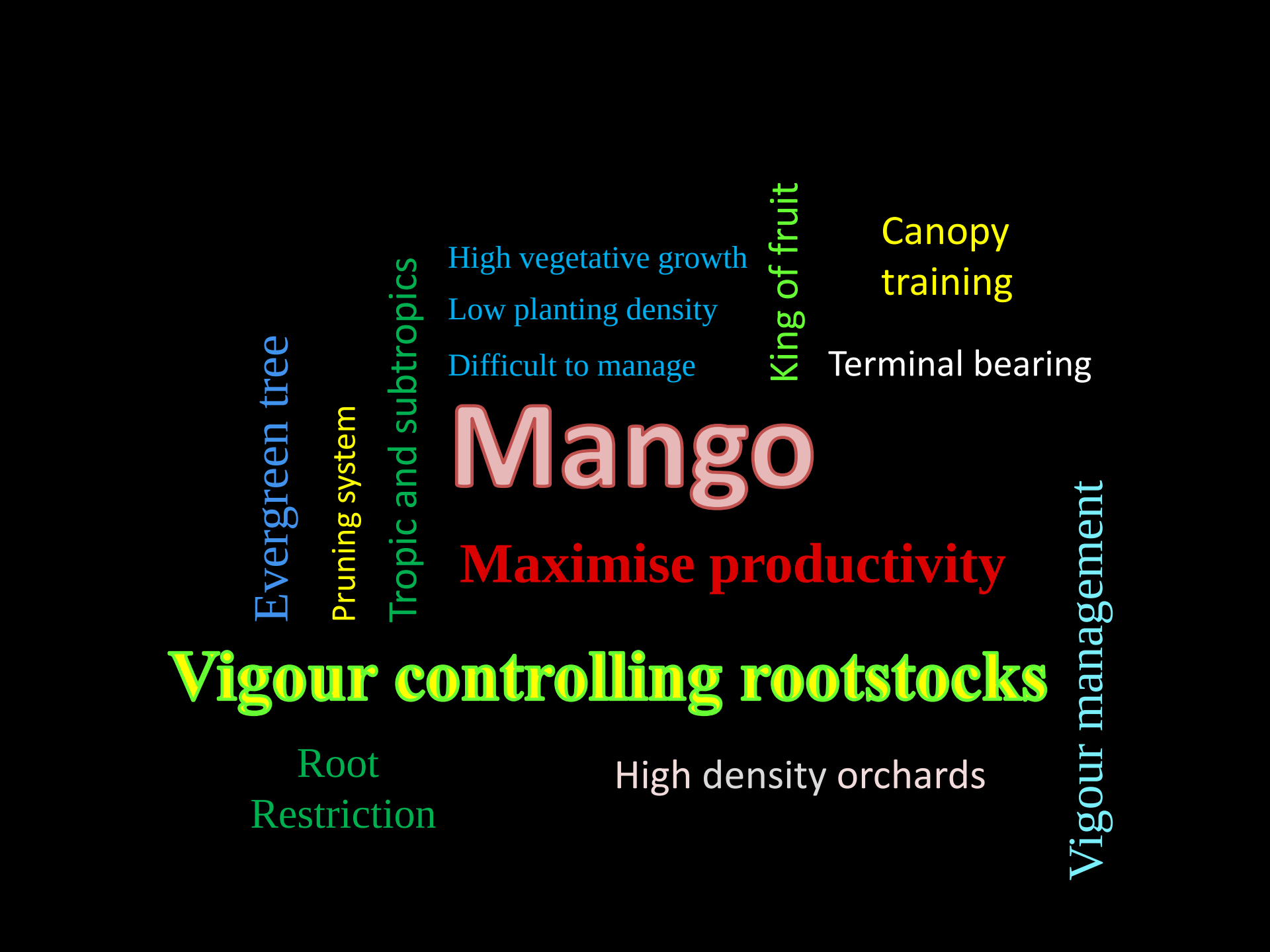
Current situation

- Tree size (large, vigorous tree)
- Low planting density
- Dense canopy (high vegetative growth)
- Low light efficiency

- Difficult to manage
- Low yield
- Biennial bearing

Current situation

- Heavy annual hedging and pruning,
- Short-term effect on tree size mangoes
- Often effects terminal flowering and subsequent yield


Evergreen tree
Pruning system
Tropic and subtropics
High vegetative growth
Low planting density
Difficult to manage
King of fruit
Canopy training
Terminal bearing
Mango
Maximise productivity
Vigour controlling rootstocks
Root Restriction
High density orchards
Vigour management

Mango Rootstocks

Kensington Pride (KP)

Rootstocks

Our research aims to discover new dwarfing mango rootstocks

- 90 genetically different rootstocks
- Planted in three groups, 12 months apart
- Scions NMBP1243 and NMBP4069
- Replicated Experiment

NMBP1243

NMBP4069

Mango Rootstocks

Assessments:

Six monthly measures from planting included:

- Tree height,
- Canopy length, along the row and width across the row
- Canopy depth,
- Rootstock and scion trunk diameters

Mango Rootstocks

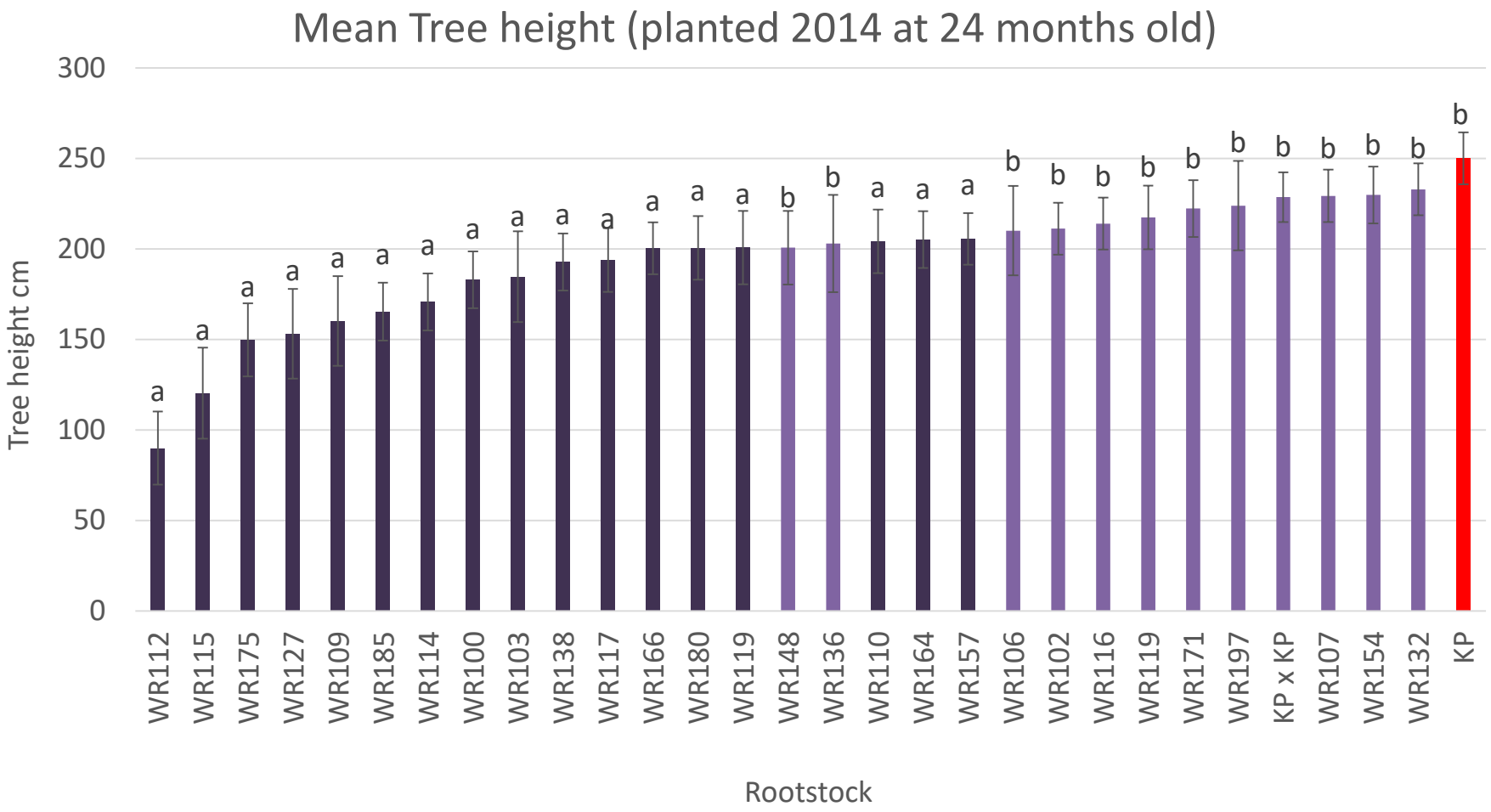
Preliminary findings:

- From the first 30 rootstocks planted in May 2014

- Significant rootstock effect on tree height at 18 months.
- Seven rootstocks were consistently among the 10 lowest vigour trees for tree height, canopy length, canopy width and scion/rootstock stem diameters.

These rootstocks show promise for high-density mango orchard systems.

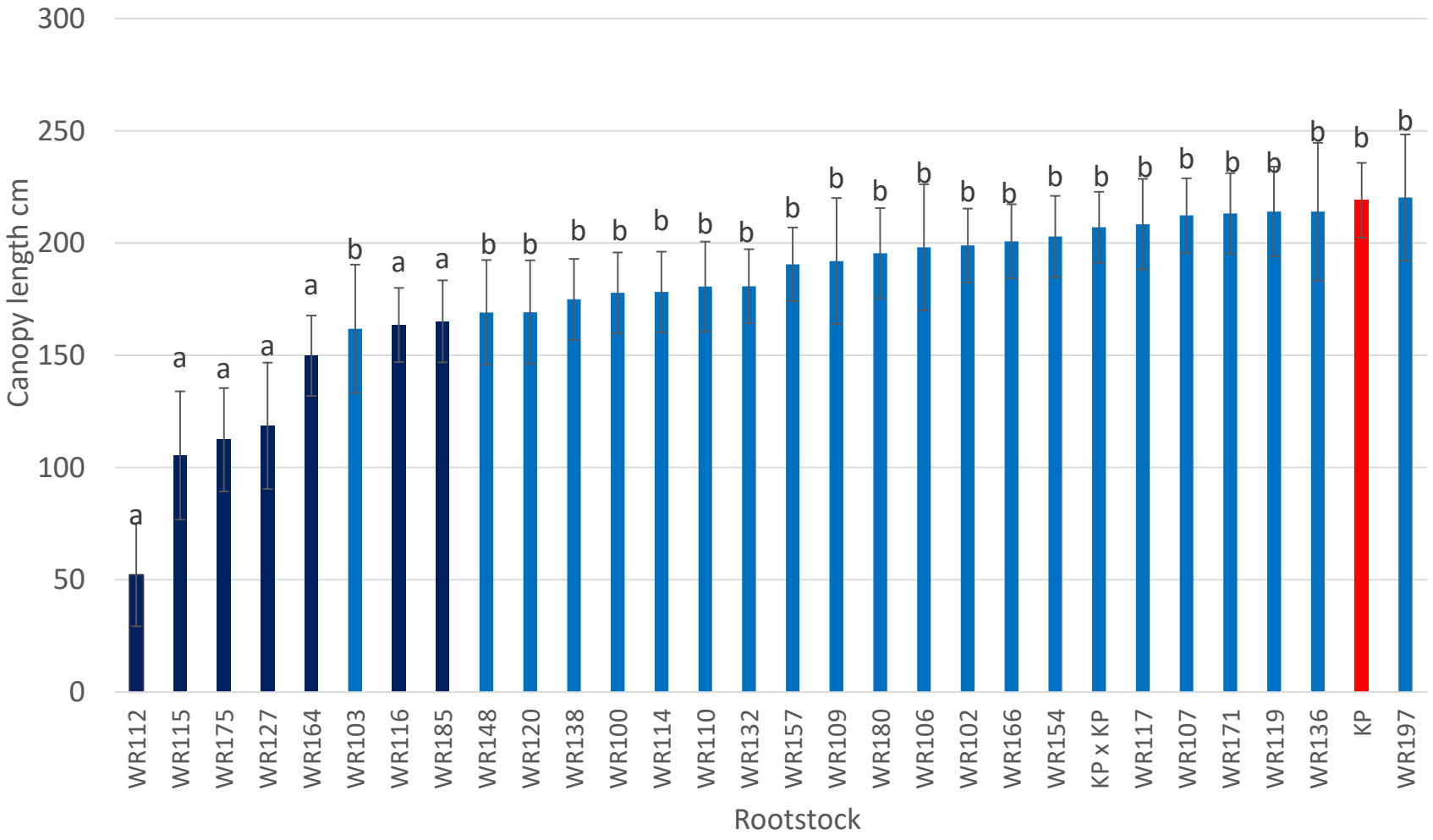
Mango Rootstocks



Bars represent the ±1 SE , pairwise comparison with the KP rootstock

Mango Rootstocks

Canopy length Rootstock planted 2014 at 24 months old



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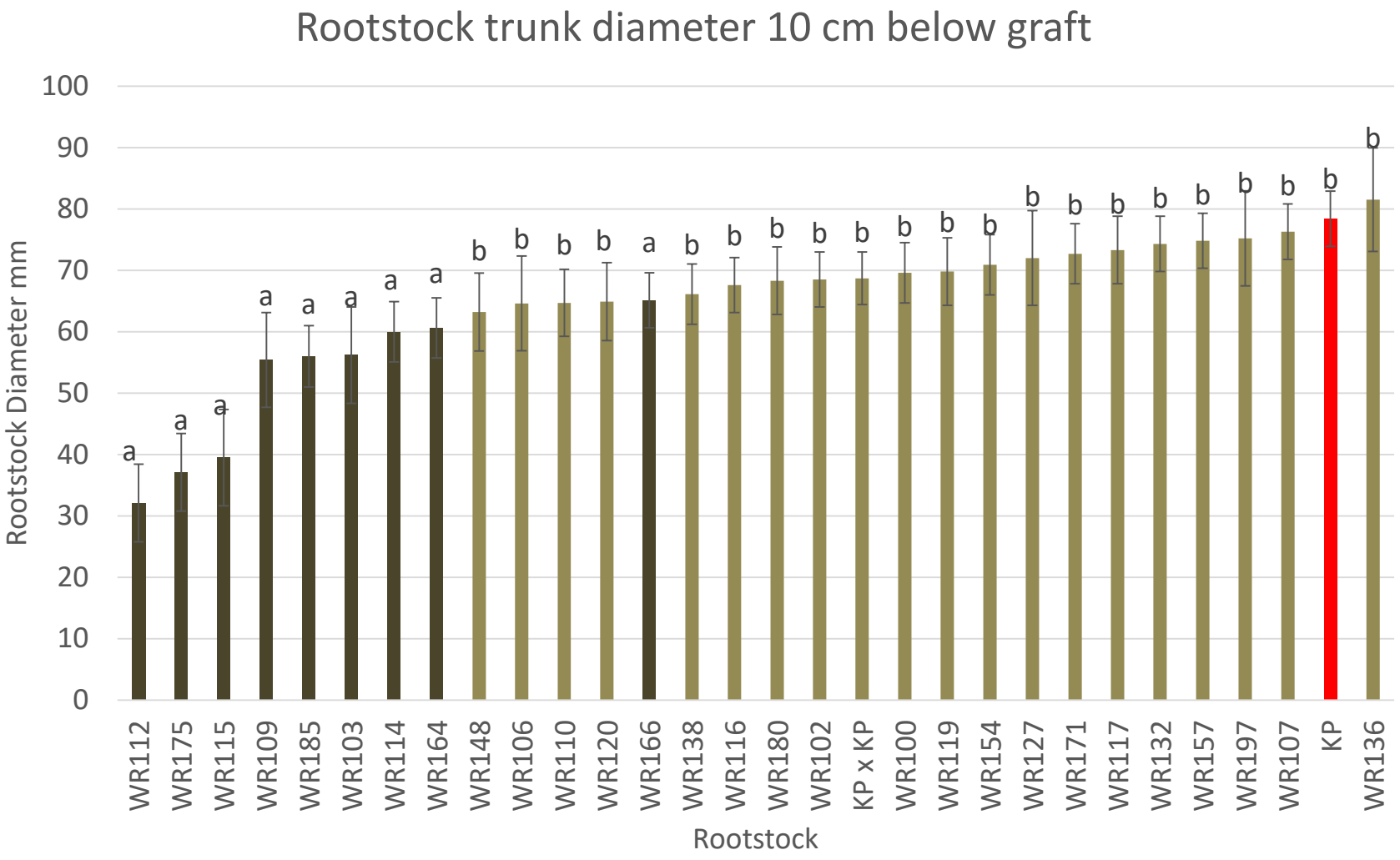
Mango Rootstocks



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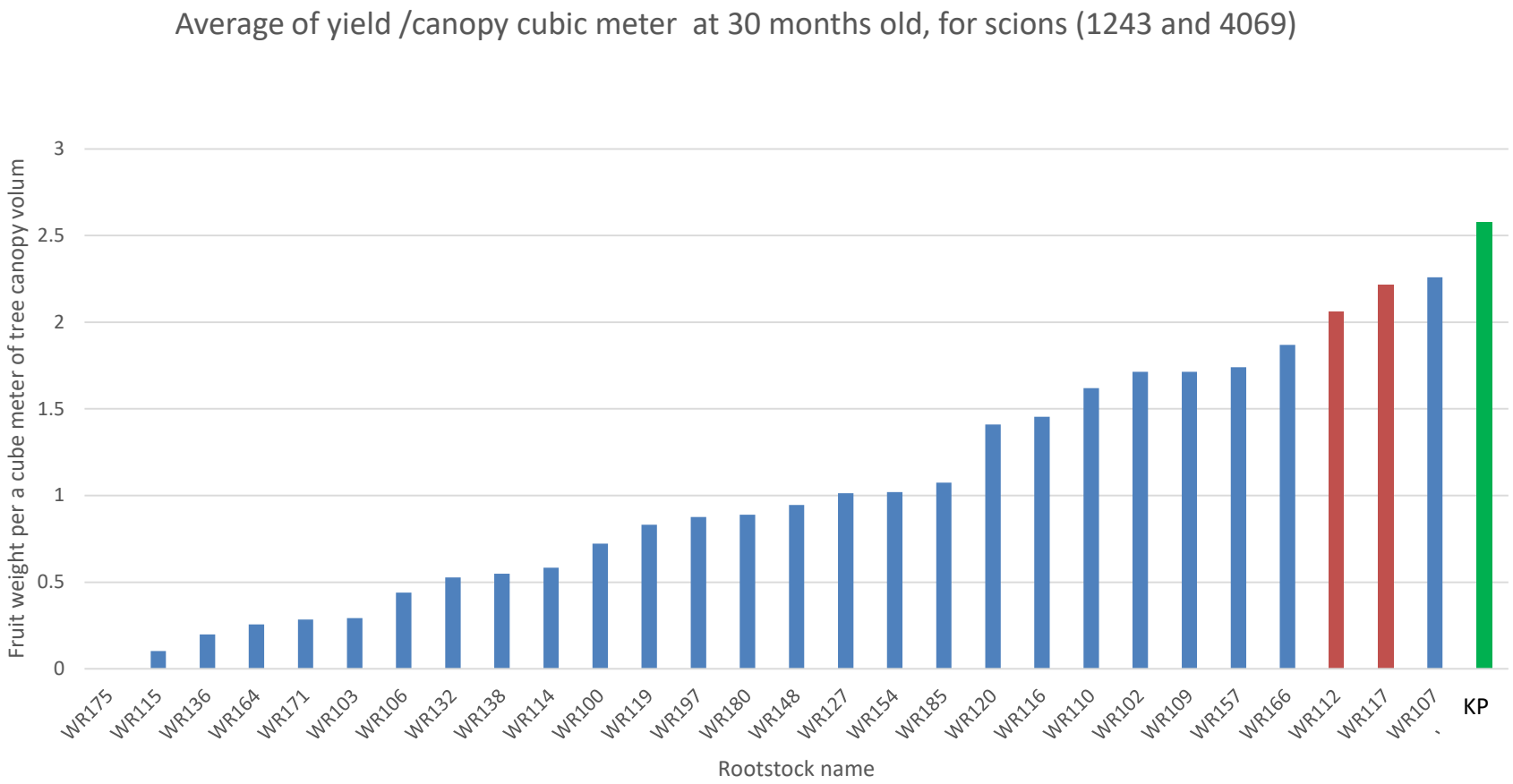
Rootstocks yields



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