

Some definitions

What is a clone?

Identical copy made by vegetative reproduction

What is a sub-clone?

Noticeable variation; for rootstocks based on stoolbed performance

Rootstock Trial

- M.9 subclones:
 - Fleuron 56
 - Pajam 1 (Lancep)
 - Pajam 2 (Cepiland)
 - Nic 29
 - T337
 - M9 TRECO
 - M.9 EMLA (comparator)
- Other comparators:
 - Bud 9 (B9)
 - Ottawa 3 (O3)
 - M.26 EMLA
 - M.27 EMLA
 - Mark

Rootstock Trial

- Scion was Gala
- 10-year trial (9 cropping years)
- Coarse soil low in organic matter
- Drip irrigation with overhead cooling
- 10 trees for each rootstock
- Randomized complete block design

Tree Size

<u>Rootstock</u>	<u>Trunk girth (cm²)</u>	<u>% of M.9 EMLA</u>
M.26 EMLA	26.5*	153
M.9 Pajam 2	24.6	129
M.9 Nic®29	22.4	129
B.9	22.1	128
O.3	22.0	127
M.9 Pajam 1	20.8	120
M.9	18.2	105
M.9 T337	18.1	105
M.9 EMLA	17.3	100
M.9 Fleuron 56	16.7	97
Mark	16.7	97
M.27 EMLA	10.4*	60

Yield and Efficiency

<u>Rootstock</u>	<u>Cumu. Yield (kg)</u>	<u>CYE (kg/sq cm)</u>
M.26 EMLA	121.8*	4.8*
M.9 Pajam 2	129.7*	5.4
M.9 Nic®29	132.2*	6.2
B.9	120.5*	5.7
O.3	111.2	5.1
M.9 Pajam 1	110.8	5.5
M.9	94.6	5.3
M.9 T337	107.8	6.1
M.9 EMLA	94.8	5.7
M.9 Fleuron 56	98.4	6.0
Mark	75.6	4.4*
M.27 EMLA	46.6*	4.3*

Fruit Size (9 year avg.)

<u>Rootstock</u>	<u>Average Fruit Weight (g)</u>
M.26 EMLA	176
M.9 Pajam 2	184
M.9 Nic®29	190
B.9	181
O.3	184
M.9 Pajam 1	185
M.9	190
M.9 T337	189
M.9 EMLA	183
M.9 Fleuron 56	182
Mark	152*
M.27 EMLA	157*

Other aspects of performance

- Tree survival was good for all
- Suckering only on Mark at Summerland
- Other sites: suckering on Pajam 2 and Nic 29

Conclusions:

- Pajam 2 and Nic 29 produced more vigorous trees than M.9 EMLA, otherwise similar
- Other M.9 sub-clones ~ M.9 EMLA
- All sub-clones had good fruit size and tree survival

Conclusions:

- B9 performed well and is more cold hardy than M.9
- Mark runted out, had small fruit, low yield and lots of suckers
- Ottawa 3: certified virus free propagation wood highly recommended