

ALTERNATIVE METHOD OF BUSH TREE PRODUCTIONBUDDING IN SITU

Rootstocks are planted out in spring on the orchard site at normal tree spacing. These stocks are budded in situ with a cider variety later that season, and will grow on to produce cropping trees without further lifting or transplanting.

This method has two major advantages:

If no suitable maiden trees are available, an orchard may still be established on the chosen site in the desired year of planting.

Trees produced by this method will be cheaper to produce and quicker to establish than nursery produced trees budded at the same time.

METHOD TIME SCALE

<u>TREE</u>	<u>ROOTSTOCK</u>
<u>Feb 1997</u> Planted as a maiden.	Planted as a stock.
<u>August 97</u> End of 1st growing season.	Stock budded.
<u>Spring/summer 1998</u> Tree grows as 2 year old.	Stock grows out as a well feathered maiden.
<u>Spring 1999</u> Tree grows as 3 year old.	First growing year as a well established tree.
<u>Autumn 1999</u>	Should be more advanced than tree was at Aug 97.

NOTES

- 1] Rootstock may not need a tie or stake if it is a good size and planted at a good depth. Reduced wind resistance in the year of planting means better root establishment. Unstaked trees normally develop better root systems than staked trees. However staking may be necessary on very exposed sites.
- 2] Transplanting causes some shock to the tree; the larger the tree the greater the shock. A maiden from the nursery is likely to suffer a greater transplanting shock than a rootstock.
- 3] Although a rootstock is 2 years behind a maiden tree, it will rapidly catch up and probably be indistinguishable from it in 8 - 10 years. By year 5 it will probably be only the equivalent of 18 months behind the tree.
- 5] With a skilled budder, losses will be minimal and can be replaced by a nursery tree.

PLANTING COSTS

COST	BUSH		ROOTSTOCK	
PLANTING	SPRING 1997		SPRING 19997	
CAPITAL £/TREE	Tree stake, guard tie	3.00 2.00	Rootstock Guard	0.40 0.50
SUB-TOTAL		5.00		0.90p
PLANTING COSTS/TREE	Marking out planting tying staking	1.00	Marking out planting guards[spring] Budding[Aug] Releasing bud	0.60 0.30 0.10
GRAND TOTAL/TREE		6.00		1.90
COST/ACRE @ 303 TREES/ACRE		£1818		£576

YIELD PROJECTION [TONNES/ACRE]

YEAR	NURSERY TREE	IN SITU ROOTSTOCK
1997	0	0
1998	0.25	0
1999	1.5	0
2000	3.0	0.75
2001	5.0	2.25
TOTAL CROP YEAR 1-5	9.75	3.00
CROP VALUE @ £85/TONNE	£828.75	£255

CROP DIFFERENCE BY THE END OF 5th YEAR = 6.75 TONNES
 AT £85 PER TONNE, THIS REPRESENTS A LOSS OF £574 PER ACRE

RELATIVE COSTS OF ESTABLISHMENT [To year 5]

NURSERY TREES £1818/ACRE IN SITU ROOTSTOCKS £1050/ACRE

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