

Budding in Situ

For inexpensive trees, I would suggest that the best way to go about this would be to

- plant rootstocks in the final tree locations [20/acre],
- bud them in situ during their 1st growth year with the required fast growing strong stem-builder [say Bulmers Norman],
- grow these on for a further 2 years [as would be done in the nursery],
- then bud the tops with required scion during the summer to get the required centre leader shape

This is what you would get ;

- a cheaper tree
- a stronger root system that may not require staking
- less transplanting shock
- although a rootstock as 2 years behind a maiden tree, it will rapidly catch up and may be indistinguishable from it in 8 – 10 years.
- little disturbance in your valuable understorey

Some costs that Chris Fairs worked out in 1997 for bush trees at 300 trees/acre;

- routine tree production in the nursery and planting as a maiden £2000
- in situ budding of rootstocks £600

Alternatively, I would suggest that it would be much quicker and your cropping targets would be achieved faster if normal standard trees were used, planted at 20/acre. NB Traditional standard orchards are planted from about 30 – 35 feet apart on a square or diagonal to achieve around 40 trees/acre, and to provide minimal competition for the grass grazing understorey, even when mature.

In answer to your other suggestions

1. transplant 'mature' choice trees. Expensive business! Greater planting shock, therefore higher failure risk.

Planting into soil heating mulch

2. Self rooting scions. This is the big problem. In our experience few of the useful cider cultivars are self rooting. Unless you can rediscover Scudamore's Crab which was said to strike easily from cuttings!

With hormones [NAA, IBA] in heated propagators, most of them make good callus and root initials, it's the establishment that is difficult. Perhaps your Cameroon fruit trees were a bit more inclined to root freely.

3. Genetically 'controlled' seeds. I would have thought that apple's genome is a bit too complicated with far too many options to expect to get anything like your aims. And of course they take about 5 years before you know what their fruit, growth habit, disease susceptibility etc.etc is going to be like.
4. Crab seedlings. Still takes 5 years.
5. Top-work crab seedlings. Isn't this is more or less what we are doing already?