

Kirstenbosch National Botanical Garden for 3 weeks, furthering the trials work the College had been conducting, and another week looking at the nursery industry in the Johannesburg area.

I have had the chance to move further into management but declined the offer. I came into the industry because of my love of plants and I want to remain working with them. I still have ambitions, mainly to grow even more plants to a high quality and continue to improve the nursery facilities. I know I would not get the same job satisfaction working from behind a desk.

Joining the International Plant Propagators Society has been of enormous benefit, it is very easy to become totally absorbed in your own world, and the opportunity to visit other nurseries and talk to growers has been invaluable.

I would urge all employers to keep an open mind when looking for new staff. Do not automatically reject the over-forties; they have a lot to offer. Ageism has no place in horticulture.

Propagation and Marketing of Regional Fruit Varieties®

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INTRODUCTION

It's been said of me that I like trees and dogs more than I like people. I apparently used to gurgle at trees from my pram as a baby. Therefore, it's probably no surprise that I ended up establishing my own tree nursery. However, ending up growing one of the largest ranges of fruit trees in Britain was a combination of accident and good fortune.

When I started Thornhayes Nursery, it was my intention just to grow ornamentals, although I had an interest in fruit trees from growing fruit on a domestic level, including some of the less common West Country varieties. However, at the same time as I started my new business, the whole subject of orchards and old fruit varieties came to the fore nationally. The charity Common Ground had initiated a national Apple Day in October 1990 as part of its campaign for local distinctiveness. Subsequently, the government increased Countryside Commission expenditure on its Countryside Stewardship Scheme and extended it to include orchard restoration. Within a very short time there was a demand for fruit trees generally and apple trees in particular on vigorous *Malus domestica* M25 rootstocks. I had thought initially that if I grew a range of fruit trees, it might represent 10% at most of our turnover. I was very wrong. It is now about 50%.

DEVELOPMENT OF THE RANGE

In my first year of propagation I concentrated purely on dessert and culinary apples, sourcing my budwood either from the National Fruit Collection at Brogdale, Kent, or the Bickton College Museum Orchard in Devon. However, this was not enough. Over the following years I obtained budwood of other fruits, gradually extending the range to cider apples (*Malus*), pears (perry, dessert, and culinary) (*Pyrus*), plums (*Prunus*), cherries (*Prunus*), quince (*Cydonia*), medlar (*Mespilus germanica*), and so on. This was to some extent sourced from within the trade, such as Bulm-

ers of Hereford, Showerings of Shepton Mallet, and Frank P. Matthews of Tenbury Wells. Also I approached local cider growers for some of the less common, more local varieties, such as *M. domestica* 'Slack ma Girdle' and 'Hangy Down'. However as the demand increased for traditional fruit trees, so did the enthusiasm of individuals and groups within the region. They sought me out and I sought them out. Old, supposedly extinct varieties, mentioned in dusty old books, started to come out of rural backwaters in all the south-west counties and in some cases beyond.

We are told by sociologists and anthropologists of the significance of the oral tradition and the impact of our modern society on traditional cultures. I feel this is true in rural communities in the British Isles as well as further afield. I was given graft wood from old trees by old men, who in some cases had saved that particular variety from the ravages of wartime farming policy in the 1940s. In some cases there are no written records, but there is a rich oral record of that variety in a small geographical area. The danger is that once that generation of people has passed on, the varieties too could be lost. They would exist only as a fable.

Most people these days, if they think of fruit growing in the south-west at all, merely think cider apples. However, there is a rich history of top fruit growing in significant areas of the south-west. In some cases these areas reached their zenith in the 19th century with the coming of the railways, as was the case with the Tamar Valley on the Devon-Cornwall border. However, many of them existed around key ports and pre-date the railways. The fruit was either traded beyond the region by boat, or it victualled vessels about to embark on long voyages, either as fresh fruit or cider. Defoe describes this in the 18th century in his journals. For example, there was a regular summer trade in fresh cherries from Barnstaple, on the North Devon Coast, to South Wales.

The significant thing about this industry was that it relied almost exclusively, right in to the 20th century, on distinct local varieties of top fruit. A few, such as *M. domestica* 'Cornish Gilliflower', became known nationally, but most did not venture beyond the region and in some cases beyond a couple of parishes. The distinct thing about them is that they were selected to cope with the peculiarities of the climate, microclimates, and disease problems particular to the south-west.

So over the course of 12 years I have amassed a unique collection of fruit varieties, many of which are not held at Brogdale. A large part of these are only propagated by Thornhayes Nursery. I suppose if I were purely a hard-nosed businessman, I would have chosen an easier route to financial gain. However, we have built up a national reputation for the extent of our range. So much so that the Lord Lieutenant of Devon decided that the gift from the county to Queen Elizabeth II to mark her Golden Jubilee in 2002, was to be an orchard of Devonshire apple cultivars, supplied by Thornhayes.

MARKETING

From very early on in the development of Thornhayes, it became clear that we would chiefly have to market our range, both fruit and ornamental, direct to the end customer. It was clear that a market demand was there for our product, but it could not be reached by supplying wholesale to the retail trade. We have subsequently developed part of our trade as wholesale to more specialist plant retailers, as our range and reputation has grown. There are also a range of tree contractors in the area who are heavily involved in Countryside Stewardship work, who look to

us as their main supplier of fruit trees. However, at least half our trade is direct to the end user. Retail is not the appropriate term, as the customers range from large organisations such as the National Trust and large private estates, through various commercial growers to private gardeners large and small.

Reaching these customers is something we work quite hard at and involves several key elements:

Advertising. We carefully budget and target advertising towards areas identified as our key market areas. Anything that does not perform is cut.

Self-promotion. By a range of means we try to maintain a profile both locally and nationally as experts in our field and suppliers of a quality product.

Catalogue. This comprises 40 A4-size pages. It fully describes our range. The fruit tree descriptions include information on origin, flowering period, use, season, and disease resistance. There is also a section explaining rootstocks, spacing, and pollination. It is worth the investment as customers use it as a reference work, thereby maintaining our profile.

Planting Guide. This is provided free with the catalogue. It is four sides of A4 and explains pre- and post-planting practice and formative pruning. Besides providing the customer with vital information, it also saves staff time repeatedly answering customers' questions in the nursery or on the telephone.

Website. Has become increasingly used and is now an essential adjunct to advertising. People can obtain all sorts of information and photographs from it. In addition customers can download the complete catalogue and order on line. We chose to have this professionally designed and managed, which seems to have paid off. I certainly don't have the skills or time to do it.

Advice and Design. Besides all the advice contained in the catalogue and website, some customers need the personal touch. They can get advice over the phone or by visiting the nursery. Also I will make site visits to advise on or design planting schemes. The visits are charged for on a sliding scale depending on the size of the order.

Local Distinctiveness. The south-west is an increasingly popular place to live and a higher than average proportion of the population are keen gardeners. However the climate and microclimates are not the "bowl of cherries" that outsiders are often led to believe. We make a point of stressing that we grow things that will thrive in the "wet west". This includes assessing scab and canker resistance. We publish the figures in our catalogue and stop growing anything that is not reliable. This has gained us a reputation for being the experts in the field — a reputation we are keen to maintain.

Contract Growing. The regional distinctiveness concept is adopted by certain of our trade customers who retail. So we contract propagate a range of regional or county varieties of pot-grown fruit for them.

Apple Day. In October the U.K. generally and the south-west in particular abounds with Apple Days, promoted by the charity Common Ground. We always mount a large display of fruit and offer advice at the event at the Royal Horticultural Society's garden at Rosemoor in north Devon. We also provide displays of fruit for other events, the organisers of which promote us as suppliers.

PROPAGATION

Field budding is used for most of our fruit propagation. A small proportion is bench grafted and potted. Fruit rootstocks are purchased from Frank P. Matthews Ltd. Graft or budwood is selected from our own extensive collection of stock plants.

Commercial Propagation. Bench grafting takes place in February and the plants are then potted into a Levington peat-free compost in a 5-L pot in March/April. The resulting maiden plants are then saleable from September. Field budding is carried out in August on rootstocks planted the previous March. The maiden trees are saleable from December, 15 months later.

We sell the majority of our trees as maidens. They establish better in the windy west. There is, however, a demand for larger sizes and so we grow on to bush, half standard, and full standard. All these larger sizes are field grown. There is a small demand for trained cordons, espaliers, etc. that we as yet do not fill. However, the chief demand is for orchard trees.

Building up Stock. Propagation to save an old variety and build up stock is more difficult. Most varieties to be rescued are generally in a poor state of repair — often neglected, unpruned, and senescent. If the time scale allows, I try to get part of the tree hard pruned to produce some vigorous juvenile wood but this is rarely practicable. I usually have to make do with what I am given.

Once received, or collected, in a dormant state in winter, material is cold stored. Bench grafting takes place in February. The material is whip grafted, packed in trays of moist compost, and placed under an unheated polythene tent, within a closed polytunnel. On hot days the tunnel is opened and gradually the tenting is lifted to ventilate and harden off the grafts as they break bud. After about 4 to 6 weeks, the young plants are potted if successful. Losses can be high if the material is poor but at this stage I am trying to rescue the variety, not produce a crop. If I pot 5 to 10 plants I am quite satisfied.

The potted plants are stood down in an unheated, net-sided tunnel. In May or June they are moved on to an outdoor standing area, so as not to grow too soft. By August we should have produced strong-enough plants to rob several of them for budwood, to produce a batch of about 20 to 30. The remaining pot-grown plants will hopefully provide us with a stock plant to plant in the autumn — and a plant to give to the person who provided the material. We may even be lucky enough to have a saleable surplus. If the worse case scenario occurs and the original tree blows over or dies and our young new plants die, we still have the budded stock to fall back on.

ROOTSTOCK SELECTION

Our main demand is for apples for standard orchards on M25 rootstock. Added to this is a modest demand for pears, plums, and cherries for traditional-type orchards. On top of this is a demand for garden trees: bush, half standards, cordons, espaliers, fans, etc. in a broader range to include quince, medlar, and so on. Traditionally in the south-west, fruit trees get a hard life. They have to cope with above average wind speed, high rainfall and humidity, and in some cases shallow, low-fertility soils. So on the whole we need a rootstock that has good vigour and is wind firm. In my personal opinion, there is no place for an *M. domestica* M27 rootstock west of Bristol or Salisbury. We use the following rootstocks:

Apples. *Malus domestica* M25 for standards and *M. domestica* MM106 for everything else. Bush trees on anything less vigorous than MM106 will always need support in the windy south-west. The support system that is reliable for a mature bush on *M. domestica* M9 or M26 in a north-westerly gale in Mid Devon does not exist. Subjects such as *M. domestica* 'Bramley' on *M. domestica* MM106 will generally be too vigorous for a cordon, but we have plenty of alternative choices.

Pears (*Pyrus*). Seedling pear for standards including perry varieties. *Cydonia oblonga* Quince A and *P. communis* Pyrodwarf® pear for everything else. My comments on *C. oblonga* Quince C would be similar to the dwarfing apple rootstocks. Pyrodwarf® pear is a relatively new micropropagated rootstock from Germany. It is said to have a similar performance to Quince A. We have found it buds more successfully than Quince A and it does not have any incompatibility problems like Quince A. However, pears are not easy in the south-west climate. We are in the process of reducing the range we offer, because of disease problems. Also, after several years with a cold, wet May, we are about to revert to bench grafting pears on all but seedling pear rootstock, as we have experienced severe losses at bud break.

Cherries (*Prunus*). Up until now we have just been using Colt. However, some of the varieties still grow too big on it for garden trees. We are currently trying some of the Devon and Cornish cherry varieties on Gisela 5. Our first crop of maidens looks very good.

Plums (*Prunus*). We use *P. ×domestica* subsp. *institia* St. Julien A. It is an all-round performer and compatible with virtually anything. My experience of Pixy is that it suckers badly and dwarfs fruit size. As some of the south-west regional plums have fairly small fruit anyway, we avoid it.

THE FUTURE

At the start of the 2002/3 winter lifting season we offered for sale more than 8000 fruit trees in more than 300 varieties. We have now reached a stage where rationalisation is in order. Some of the varieties are in much higher demand than others. Certain ones, after qualitative evaluation are probably not worth growing, financially or otherwise. By contrast, it is worth pointing out that some of the quite obscure varieties warrant consideration for commercial fruit growers, because of their fruit characteristics and disease resistance. Organic growers in particular should take note.

In my opinion, there is a market for fresh produce growers to take up in local retailing of fruit, particularly regional apples. A few people are going down this road already. If the growth in sales of single variety apple juices, on a local and regional level, could be replicated in the sale of fresh apples, avoiding the wholesale markets and the supermarkets, there is great potential.

So, over the next few years, the range of fruit trees will probably reduce slightly, but production increase slightly. At present, the government is still funding the Countryside Stewardship Scheme, so the market for orchard trees seems assured for the time being. Demand for smaller-growing and trained trees is still increasing, so we must pursue that market.

It is time to consider various means to increase our profile to customers. In the past I have tutored training days for various organisations, such as the Farming and Wildlife Advisory Group, on orchard management. Such courses will continue, but also I have planned a series of RHS Partnership lectures for 2004, to speak directly to keen amateur growers.

CONCLUSION

The success of Thornhayes is a result of a combination of marketing and propagation. Since establishing we have worked to promote and market the company and its products. However, we have never lost sight of the fact that it is the product that counts. We strive to propagate and grow a quality product efficiently, but up to a standard not down to a price. The marketing gets us past the key stage of making the initial contact with the customer or the first sale. From then on the plants do the talking. Customer loyalty, repeat sales, and recommendations come on the back of sound propagation and husbandry of a quality plant, rather than slick marketing.

Work Experience and Nursery Tour in New Zealand®

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WORK EXPERIENCE AT TAUPO NATIVE PLANT NURSERY

Much of my time in New Zealand was spent as a volunteer at Taupo Native Plant Nursery. It has been a nursery for 40 years — for the first 30 years it was run by the Department of Conservation. In 1993 it was privatised but, under its current manager and part owner, Philip Smith, retains its remit to provide native plants for the restoration of scenic reserves, forests, and national parks. Re-vegetation projects are booming thanks to investment by the recently elected government, which is working to reverse the conservation threats to the country's internationally important native plants and wildlife.

As a result of this interest Taupo Native Plant Nursery is expanding rapidly and produces more than 2 million plants on a site of 20 ha with a staff of more than 30. Mr. Smith has structured the nursery with a number of key managers and one or two full-time staff employed to strengthen each team. The remainder of the workforce is casual labour. The teams are: propagation, production, despatch, sales, administration, and garden centre. Considerable thought has gone into organising the structure of the teams and Mr. Smith has concluded that it is best to rotate the staff around departments in order to build up each individual's skills and to maintain motivation.

PROVENANCE

The nursery grows the widest range of native plants in New Zealand, including alpenes, ferns, palms, trees, grasses, and shrubs. Most of this is grown on contract and wherever possible it is propagated from seed collected from the area where it is destined to be replanted, thus conserving local genetic identity. The provenance of the seed is carefully recorded and followed strictly throughout the production process through to despatch. Added to this, all seedlings are grown on to maintain as wide a gene pool as possible.