

**EDITOR'S NOTES**

by Jade Bartlett

George our Equipment Co-ordinator does an amazing job managing our busy presses, mills and pasteurisers over the pressing season. He does this all voluntarily and without the revenue made from this work, Orchard Link would not be able to maintain the equipment or even run the way we do now. George needs some help and is looking for someone to help with either the physical maintenance of Orchard Link's Equipment and/or help with the administration of booking it out and co-ordination or where it goes when. Please volunteer to help and phone George on 01752 895034 or email Jade at [info@orchardlink.org.uk](mailto:info@orchardlink.org.uk).

Emma Pearce - "Thanks ever so much for helping with my Traditional Orchard's Survey recently. I would be very happy indeed to share my findings - I've been interviewing mostly community orchards and private orchards and already have lots of disparities between the two to investigate, funding being the main issue. My final deadline is early May and then I have exams but I'd be very happy to come and give a quick presentation on what I've done - I'll also send you a copy of my final dissertation, which you are welcome to distribute to members." Please let Jade know if you would be interested in either a presentation and/or a copy of my thesis.

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**ADVERTISEMENTS**

**For sale:** 100 rubber tree ties, bought by mistake. They are 15 inches long. £35 the lot or 40 pence each. Call Ben on 07792-664710  
**Orchard Scything and Management, Design & Forest Gardening.** Alastair Inglis. Mobile: 07796-805453 Email: [al.inglis@yahoo.co.uk](mailto:al.inglis@yahoo.co.uk)

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You can contact **ORCHARD LINK** at:  
**Orchard Link, P.O. Box 109, Totnes, TQ9 5XR**  
phone **07792 664710** email [info@orchardlink.org.uk](mailto:info@orchardlink.org.uk)  
[www.orchardlink.org.uk](http://www.orchardlink.org.uk)

To enquire about the hire of apple mills, presses and pasteurisers for the 2011 season please contact:  
**George Arnison on 01752 895034**

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Spring 2011

Volume 11.1

**Orchard Link NEWS**  
*'Saving Traditional Orchards'*  
[www.orchardlink.org.uk](http://www.orchardlink.org.uk)



**A Big Thanks To You All**  
Enjoy reduced membership in 2011.

by Jade Bartlett

A new year, a new membership price and plenty of sunshine to set ample blossom on our orchard trees; a great start to 2011 for Orchard Link. The gorgeous sunny spring weather has warmed the soil and woken up the trees. With the gentle rain's encouragement, delightful Spring-time blossom is here. The Cherries and Plums have burst into soft pink and white flower with the Apples and Pears close behind. The hedgerows are white with pretty May blossom and the birds are providing a boisterous fanfare for a hot and dry Spring, which is bordering on Summer.

This vibrant Spring feeling has spread to the Orchard Link Committee and we have been busy revamping and spring cleaning. Orchard Link is doing well, it is stable financially and we now have enough volunteers to run. We have operated in credit now for a few years and are looking at opportunities to purchase new equipment and run more events. We would also like to give back to our members, so have reduced membership to £12. We hope this will create opportunities for more people to become involved in Orchard Link, therefore, broadening our ability to support orchards, aid in developing enthusiasts and to ensure that orchards are a sustainable element of our landscape.

**Don't forget to rejoin after reading this!**



Our aims are very much as relevant today, as they were 12 years ago when Orchard Link was set up. With many new people arriving in South Devon, the popularity of local produce increasing, plus an added importance to the value of community. Orchard Link is developing a strong place in the future of supporting South Devon's Orchards.

Welcome to your Spring 2011 Newsletter.

## INTRODUCING - New Committee folk.

With new recruits to the committee and a continuation of the hard work and commitment offered by existing committee members, Orchard Link has gathered enthusiasm and support, enabling us to look to the future and how best to meet the needs of our environment, community and members. We are now a good blend but require a few more varieties to perfect our barrel.



By Jade Bartlett

With a couple of members stepping forward to join the committee, we have embraced an injection of new ideas, energy and creativity. I would like to welcome and thank Graham, Orchard Link Member, Orchard Owner and budding Cider Brewer for volunteering to take over management and updating of our website. And Robin, Orchard Link Member, Community Orchard Owner and AONB Manager to the committee and thank him for his and the AONB's support to Orchard Link.

With further help we could offer more to our members and do more to protect Traditional Orchards. If you have a little spare time to help, please consider taking up a position advertised below or just coming along to a meeting to input ideas.

### **Positions in need of kind volunteers:**

*Newsletter Editor, Events Organiser, Fundraiser, Publicity Officer and Equipment Assistant.*

Contact Jade at [info@orchardlink.org.uk](mailto:info@orchardlink.org.uk)(preferred) or on 07813819591.

**Fruit trees - Bush & Soft fruit**

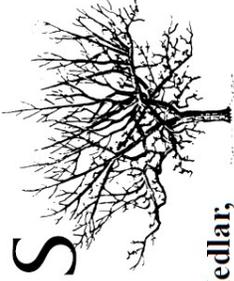
**Nut trees - Unusual edibles**

**Books - Seeds**

[www.agroforestry.co.uk](http://www.agroforestry.co.uk)

Agroforestry Research Trust  
46 Hunters Moon, Dartington, Totnes, Devon, TQ9 6JT  
[mail@agroforestry.co.uk](mailto:mail@agroforestry.co.uk) Catalogue: 4 x 1<sup>st</sup> stamps

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## STANDARD APPLE TREES OLD DEVON & SOMERSET VARIETIES

*Dessert, culinary & cider trees  
delivered throughout the South West.  
Also maiden one year old trees.*

**CIDER APPLE TREES**  
Corkscrew Lane, Woolston  
Nr. North Cadbury, Somerset  
**01963 441101**

MM106, a versatile rootstock used to produce a medium sized tree and also recommended for cordons, fans and espalier trained trees.

MM111, a rootstock more vigorous than MM106, suitable for half standards, useful on soils prone to draught, but rarely available.

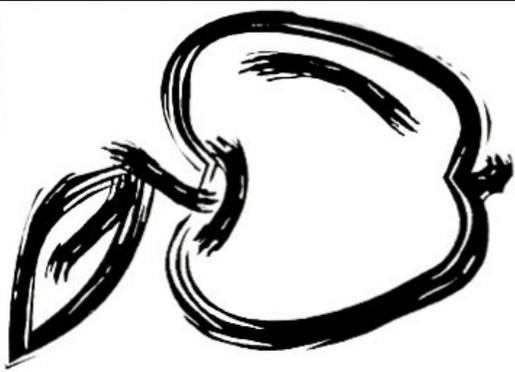
M25, a very vigorous rootstock used to produce traditional standard sized apple trees where under grazing by livestock is practised and permanent guards provided.

It is considered that MM106 and M25 are the most suitable rootstocks for the South West, their vigour being required for the poorer soils prevalent in this area. Any stock less vigorous than MM106 needs good soil conditions and management insuring adequate nutrition, watering and a weed free environment.

It should be noted that the selection and breeding of new rootstocks carried out in the UK have been used in many parts of the world. However work continues to produce rootstocks that have attributes that make them more suitable for production in regions of the world that, for example, suffer very low winter temperatures, in dry arid areas and sub-tropical conditions. In addition, rootstocks obtained from abroad, are tested for their suitability for use in the UK and internationally, especially as world climate evolves and the need for more efficient fruit production in areas of less than ideal conditions as world population inexorably rises.

There is an excellent chapter on 'Fruit Tree Rootstocks' by Tony Webster in 'Fruit Past and Present' a book published in 1995 by the Royal Horticultural Society.

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     Schools  
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 Facsimile 01404 841196  
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[www.adamspappletrees.co.uk](http://www.adamspappletrees.co.uk)



## Quince Queries and Questions Answered.

By Ben Pike. Edited by Jade Bartlett

Quinces are rather hard, yellow fruits that resemble a knobbly pear; although they have a grainy texture, they have a delicious aroma when cooked. They are a delightful addition to other fruit and make excellent jams and jellies.

**HISTORY:** The quince originates from the Near East. As trade between countries spread, the quince was introduced to the eastern Mediterranean. Ancient Greek and Roman writing is littered with references to the quince. By 600 BC quinces were used in Greek wedding ceremonies; the bride would take a bite of quince to ensure her breath was sweet before the first kiss. The golden apple that Paris gave to Aphrodite is thought to have been a quince. Roman cookbooks tell of stewing quinces with honey and cooking them with leeks. Chaucer mentioned quinces, using the French name *coines* from which the word quince eventually arose. Quinces were one of the most popular fruits in medieval times, producing a marmalade, similar to the dulce de membrillo or marmelo that is still popular in Spain and Portugal today. After a brief heyday in the 18<sup>th</sup> century, quince cultivation declined to the marginal level at which it exists today.

**CULTIVATION:** The 'true' quince (*Cydonia oblonga*) forms a small tree up to about 5m (16 feet) in height and spread. It is a pretty tree, producing large blush-coloured flowers in the spring. The large yellow fruits also serve an ornamental purpose in the early autumn. Quinces are usually grown on rootstocks, known as Quince A or C, the same rootstocks that are used for pears. Quince can also be propagated from cuttings and grown from seed.

Quinces prefer a moist, deep fertile loamy soil, although they will tolerate a wide variety of soil types. Very alkaline soils can be problematic, leading to lime-induced chlorosis. Quince trees might need watering during dry spells to give of their best. A sheltered position in full sun is ideal for the quince. Training quinces against a wall can be beneficial,



but other fruits will also be competing for such favoured spots. Quinces flower relatively early, so frost damage can be a problem. Generally, compost or manure applied as mulch around the tree will be sufficient for feeding, although in poor soils this can be supplemented by a general purpose fertiliser, such as pelleted chicken manure. A high potash fertiliser, such as rock potash or comfrey can help where yields are low.

**VARIETIES:** Quinces are self-fertile, but better crops will usually result if two or more different varieties are planted in close proximity. Most common varieties:

**MEECHES PROLIFIC:** productive in the British climate, prone to quince leaf blight. It is a vigorous, heavy cropping tree, that produces sharp fruits with a good flavour.

**SERBIAN GOLD** a newly introduced variety, said to be productive and healthy and suitable for cooler parts of Britain.

**VRANJA** produces large, irregular yellow fruits, excellent flavour and strong fragrance. Most suitable variety for British climate, although can be a light cropper. Crops at an early age and is a good choice for fan training.

**PRUNING:** Quince trees are most commonly trained as bush trees, with a clear trunk of around 1 -1.2m (3-4ft). They can also be trained as multi-stemmed tree, half-standard or a fan. Quince training is dominated by its unruly growth habit, they can become a tangled mass. Suckers are commonly produced; these should be removed regularly. Apart from the removal of suckers, pruning of quince trees is carried out when the trees are dormant during the winter months. Fruit will form on one year old growth and also on short spurs.

**PESTS AND DISEASE:** Quince trees are remarkably free from attack by pests. Even wasps and birds leave the fruit alone for a long time because of its tough skin.

There are two diseases that are particularly troublesome on quince trees. One of them is Quince Leaf Blight which affects fruit production and disfigures the tree. The other is Brown Rot, common to many fruits, but especially problematic on quince trees. To control this removing the infected leaves, either by raking or mowing will provide a measure of control. Spraying with Bordeaux mixture (a copper based fungicide), once in the autumn and once when the leaves unfurl, is the most effective form of control.

**HARVESTING:** Quince fruit usually ripen during October, although Meech's Prolific, Champion and Portugal can ripen a shade earlier. The fruits turn from greenish-yellow towards a more golden yellow. It is beneficial to leave the fruits on the tree as long as possible, but they should be harvested before the first frosts. It is best to cut the fruits from the tree because they do not always come away easily, which can cause damage to the small branches.

## Rootstocks for Fruit Trees? Why?

By Mick Godfrey

Have you ever wondered why fruit trees are listed in catalogues by variety and rootstock - confused? Many fruit plants are propagated by seed or cuttings, so why not fruit trees? With apples, pears, plums and cherries, if they are grown from seed they do not come true to type, are generally very vigorous and slow to start producing fruit. Hence they must be propagated by vegetative means, the scion (variety) being grafted or budded on to a rootstock. The two components are genetically distinct, the scion comprises the above ground portion of the tree - the trunk and the branches, and the rootstock - the roots and the base of the trunk. Very few varieties are grown on their own roots, because they are reluctant to root from cuttings or by layering.

When considering planting fruit trees, besides selecting the variety required, it is also important to pay due regard to the rootstock. Considering in this instance, apples, there is plenty of information available on varieties in books and suppliers' catalogues, however to many people rootstocks are 'out of sight and out of mind', but are as important, if not more so than the variety chosen. Botanically apples, both scions and rootstocks are *Malus domestica*. Historically fruit tree grafting can be traced back to the ancient Greek civilization, over 2,000 years ago. Seed from local trees produced rootstocks well adapted to local conditions. There are references from the seventeenth century to the vegetative production of rootstocks. This method was probably developed to give greater uniformity and to control vigour. Ease of propagation was most important in selection of clonal (vegetatively produced) rootstocks, one source being suckers from existing trees.

Work was carried out during the twentieth century in the UK at various research institutions to select and classify what was a diverse range of rootstocks being used by propagators in the UK and abroad, because it was apparent that there was a lack of uniformity and nomenclature. To rectify this situation as many as possible of the clonal rootstocks then available were obtained to be sorted and classified, the aim being to give each distinctive clone a new incontestable identification. This process evolved over a number of decades and the stocks were selected for uniform growth, resistance to soil borne pest and disease, to control scion vigour and adaptability to different soil conditions. This work consisted of both selection of existing rootstocks and the breeding of new rootstocks. The situation has evolved so that today the industry has a range of apple rootstocks, each with an accepted identification number.

These include:-

M27,

a very dwarfing rootstock producing trees no more than 7 feet high, suitable for small gardens, but requires knowledgeable attention to watering, feeding and weeding to thrive.

M9,

a dwarfing rootstock with brittle roots, requiring permanent staking and good soil conditions; there is a suggestion that this stock is more prone to canker.

M26,

a semi-dwarf rootstock categorized between M9 and MM106 and quoted as a useful rootstock to use when growing apples in tubs or containers.

inc tea and coffee. Contact Jade at [info@orchardlink.org.uk](mailto:info@orchardlink.org.uk) (preferred) or on 07813819591.

## Country Shows

Devon County Show                      Thursday 19<sup>th</sup> - Saturday 21<sup>st</sup> May 2011  
Mid Devon Show                         Saturday 23<sup>rd</sup> July 2011  
Totnes Show                                Sunday 31<sup>st</sup> July 2011  
Come and find Orchard Link at the AONB stand at these some of these traditional agricultural shows. Animals, stalls and displays; great family days out. See local press or TIC for details.

**Please keep an eye on our website at [www.orchardlink.org.uk](http://www.orchardlink.org.uk) for other event or for more details.**

**AONB Orchard-related events - [www.southdevonaonb.org.uk](http://www.southdevonaonb.org.uk).**

**17th April; 22nd May; 3rd July; 31st July; 28th Aug; 25th Sept. Trees from the Celtic Calendar.** Join Tress for Health and Emma Kidd to get to know more about the history, myths, spirit, biology and uses. Book by calling 0845 4569325. Adults £40. Sharpham House, Totnes.

**25<sup>th</sup> June 2011. Plant that harm, plants that heal.** Food, medicine or poison? On a walk from garden to farm to countryside with Stevie Rogers, learn the uses of many of our common garden and local native hedgerow plants. £5. Start 2pm. Ash Tree Farm, Nr. Dartmouth. 01803 712437

**1<sup>st</sup> and 13<sup>th</sup> August 2011. Food from sea and shore.** Taste the view with Fiona Campbell, wild food gatherer! Learn to collect and prepare an array of delicious and nutritious seaweeds. Contact 01364 642309. Adults £4, children £2.

## **ORCHARD LINK COMMITTEE MEETINGS**

**All Orchard Link Members welcome to meetings.**

Our meetings are held at The Church House Inn, Harberton. We meet for a meal and chat at 6:30pm, we have a quick formal meeting at 7:30pm and then time for orchard chat and drinks. Meetings are around every 6 weeks.

Wednesday May 4<sup>th</sup> 2011

Wednesday June 22<sup>nd</sup> 2011

Wednesday August 3<sup>rd</sup> 2011

**STORING:** Quince in good condition can be stored for several months, either in wooden fruit trays or cardboard boxes.

**USING:** Although they can be used on their own, they are often used to accompany apples in a variety of recipes, adding their aromatic sweetness to enhance the flavour of apple. They can also be used on their own in the same ways as apple, such as baking and stewing.

They are well known for their use in various forms of preserve. They contain high levels of pectin, helping preserves to set without the use of large amounts of sugar. Quince marmalade and jelly have both been popular, although less so today. Throughout the Mediterranean quince pastes and spreads are popular with many regional variations. Quince butter and quince ice-cream are other ways of using quinces. Quince lemonade is sometimes made from the blended fruits. They can also be used in savoury recipes, perhaps to accompany game in a casserole. Perhaps their most unusual use is to perfume a room.

### ***Mrs Beeton's Quince Marmalade***

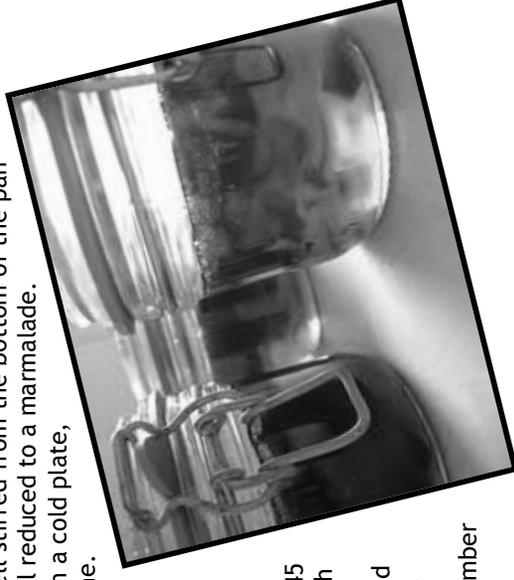
To every 450g (1lb) of Quince Pulp allow: 340g (12oz) Sugar

- Slice the quinces into a preserving pan, adding enough water to float.
- Place on the heat to stew, until reduced to a pulp, keeping stirred occasionally from the bottom, to prevent their burning.
- Pass the pulp through a hair sieve, to keep back the skin and seeds.
- Weigh the pulp and to each 450g (1lb) add sugar in the above ratio. Place on the heat and keep it well stirred from the bottom of the pan with a wooden spoon, until reduced to a marmalade.
- Test by dropping a little on a cold plate, when, if it jellies, it is done.

- Put it into sterilised jars whilst hot.
- Allow to cool and cover with airtight lids.
- Store in a dry place.

**Time:** 3 hours to boil the quinces without the sugar. 45 minutes to boil the pulp with the sugar.  
Allow 600ml (1 pint) of sliced quinces for a 450g (1lb) pot.

Seasonable in August, September and October.



**In the Summer Newsletter: Figs in the Orchard by Ben Pike.**



# ORCHARD NETWORK

by Jade Bartlett and Tony Harber

Orchard Link is not the only group to be passing through a period of change. National Orchard Forum is the voluntary umbrella organization which since 2002 has done a unique and splendid job in digesting the voluminous information put out by each of the individual orchard groups around the country and summarising it for the rest of us. All this work was achieved mainly by a group of four very dedicated people.

They have now decided that the work should pass on to the UK Traditional Habitat Action Plan group (UK HAP) which will become a portal for orchard groups through its Orchard Network website: [www.orchardnetwork.org.uk](http://www.orchardnetwork.org.uk). UK HAP is a grouping which includes National Trust and Natural England as lead partners with other core members such as DEFRA, People's Trust for Endangered Species and the Tree Council among others. This website has been up and running for almost a year and is attracting a growing number of visitors. It has useful resources about the wildlife that thrives within our orchards, the issues that surround their conservation.

The NOF website content has been transferred to Orchard Network so that local orchard groups can contact each other, access information, share news and advertise events. The other addition to Orchard Network will be the orchard gazetteer from the Common Ground website. The gazetteer is an excellent County based resource of orchards to visit, orchard related businesses, nurseries and much more. Orchard Link has recently been involved in the formation of a South West Orchard Networking group, working to share experience and expertise throughout the South West. Please visit Orchard Network for more information [www.orchardnetwork.org.uk](http://www.orchardnetwork.org.uk).

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## Community Orchard News

by Jade Bartlett

### New Orchard on the Broadclyst Community Farm

As part of Growing Spaces initiative, the National Trust is making land available for public to be involved in agriculture. A community group was formed at Broadclyst, which has now been formally constituted as an 'Industrial and Provident Society' (with benefit for the community), which is the legal body responsible for the 32 acre farm (on a renewable lease). Our slogan is "Growing Together" with the vision of "a sustainable farm providing food and education to the community while re-establishing the environmental and agricultural heritage of the farm through the support of its members."

Over winter we made a start on laying hedges (previously flailed and

## EVENTS – May 2010 to September 2011

by Jade Bartlett

### Socials

**Ye Olde Cider Bar, Newton Abbot** Saturday 14th May 2011  
Possibly the finest cider house in the UK. Basic and unspoilt. No beer, just ciders and perry from Westons, Thatchers, and best of all, genuine Devon cider from Winkleigh Cider Co from 180ltr wooden casks. 25% discount for takeouts on all draught ciders, containers available or bring your own. The owner will meet us to tell us a bit about the bar's history and cider production in the area. Just come along. **5pm**. Come by train, 16:28 from Totnes or 16:20 from Exeter-St Davids.

**Evening Blossom Walk and Dinner, Killerton** Wednesday 1<sup>st</sup> June 2011  
Come along for a walk around The Killerton Estate and orchards (approx 1.5hrs, 2 miles). Then we'll head over to the Garden Restaurant for dinner. 2 courses for £10. **5:45pm for walk (in main car park), 7:30pm for dinner**. To book contact Jade at [info@orchardlink.org.uk](mailto:info@orchardlink.org.uk) or on 07813819591.

**Bring your own Cider Tasting and BBQ.** Saturday 9<sup>th</sup> July 2011  
Come along bring your orchard creations to share with other Orchard Link members. Also bring some food to share. Nr Slapton. 2pm - 6pm. For more info phone Jade on 07813819591 or email at [info@orchardlink.org.uk](mailto:info@orchardlink.org.uk).

I am trying to arrange more social visits like the one above for members. If you would like to host a talk, discussion, walk, cider tasting or anything else and invite other like minded people along, please contact Jade on [info@orchardlink.org.uk](mailto:info@orchardlink.org.uk) or 07813819591.

### Training Opportunities

**Beginners Scything Course.** Sunday 26<sup>th</sup> June 2011  
A fun day of learning the fine art of scything. More time efficient than strimming and much nicer to do. Get to grips with good technique and safe practice, feel confident to take it further with recommendations for equipment, Q&A session and further training opportunities. At a private orchard in **Loddiswell**. Over 18yrs only, activities available for under 18s. £40 per person, fully catered. *Course Trainer: Alastair Inglis. 'The Slim Reaper'. Contact him on 07796-805453 or email a.l.inglis@yahoo.co.uk.*

**Summer Pruning Course** date TBC end of July/August 2011  
With Adam Montague former manager of Thornhayes, loads of experience. Will include Espalier, Fan and Vertical Cordons plus pruning of young standard cherries, plums and gauges. In a beautiful private, managed gardens near **Stoke Garbriel**. Please bring your own lunch. £25 per person,

## The Traditional Orchard Habitat

By People's Trust for Endangered Species.  
Edited by Jade Bartlett

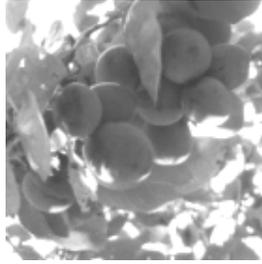
Traditional orchards are a much loved part of our British heritage and countryside. They generally consist of large trees grown on vigorous rootstocks planted at low densities. Often occupying the same piece of land for centuries, and managed without chemical input, these sites are hotspots for biodiversity and have been shown to provide a refuge for over 1800 species spanning the plant, fungi and animal kingdoms.

In addition to the well-known apple orchard, plums, pears, damsons, cherries and quince are all grown in orchards, and cobnuts (a type of cultivated hazel) are grown in a type of orchard called a plat.

Whether you manage your orchard for fruit production, or just enjoy having an extension to your garden, these areas are important for wildlife and often harbour old, rare and locally significant fruit varieties.

Once a common sight within the landscape, the traditional orchard habitat is now under serious threat and for this reason the UK Biodiversity Action Plan (BAP) now includes Traditional Orchards in its list of priority habitats. Threats to old orchards include neglect, intensification of agriculture and pressure from land development. Supermarkets have long been importing cheap fruit from overseas which has led to orchard habitats becoming economically unviable and increasingly rare.

The area of orchard habitat across England has declined by more than 60% since the 1950's.



People's Trust for Endangered Species (PTES) are creating an inventory of traditional orchards which will form a baseline from which to guide all future conservation work in order to maintain and preserve this unique and special habitat. We also want to encourage the more traditional methods of orchard management and raise the profile of locally grown fruit. There is still time to get involved so please contact Anita Burrough The Orchard Project Officer at Anita.Burrough@ptes.org or on 020 7498 4533 for a questionnaire. For more information, progress updates, volunteer opportunities and interesting links and guides visit <http://www.ptes.org/index.php?cat=95>.

undetermined by rabbits) and were donated 460 native fruiting plants from the Woodland Trust including Crabs, Hazel, Blackthorn and Rose. We had a series of public hedge laying events.

The farm needs to generate income from its fruit trees, so both modern and heritage varieties were chosen. That is, local rarities such as Killerton Sharp, Star of Devon, Veitch's Perfection and Wimple Wonder as well as the more common Discovery, Egremont Russet, Katy, Suntan and even the aptly named Crispin (Mutsu). A list was made and then a spreadsheet which looked at issues such as fruiting season, flowering periods and growth habit/vigor. We then contacted Adam's Apple and placed an initial order and he kindly visited the site to advise.

Measuring out and putting short canes to mark tree positions helped us establish the layout (30ft or 5m grid is traditional). Our field is not square and the land gently undulates so it was more aesthetic to follow the contours of the land. Also we needed to assure adequate access to gates and make provision for mowing and maintenance. The heritage varieties are on M25 stock on the orchard borders and will form full size standard trees (possibly underplanted or even grazed in the fullness of time). The others are on semi-dwarfing MM106 towards the centre where a more formal cropping area will be maintained. We had a bias for earlier varieties with a view to getting the first apples of the season in the hope that customers will be faithful and return to us. Note that we don't presently have any storage/processing facilities. As well as apples we've also put in a few pears, plums and cherries and have plans for a Forest Garden to include nuts and other crops.

We had a public Orchard Planting Day which took a good deal of organisation. We didn't want to put out all the trees in advance as we felt the roots would tend to dry and they may get trodden or tripped over. Instead we wrote the variety name to go in each position on the stake. We dug a couple of demonstration pits, so people could see exactly what to do and provided supervised instruction. As well as short stakes, ties and plastic spiral guards, we also included a short length of hose to allow direct watering of roots (our soil is very sandy). Individuals could choose whether to turn over or replace turf and we had a choice of nutrient additives including some innovations such as homemade Potash and Mycorrhiza spores. Following the tree planting (73 in total) we have started our development and maintenance programme. We started by mulching the trees with soiled hay from our livestock (we have sheep and pigs). We also have a good supply of thistles and nettles that we may use as an alternative mulch or create compost or liquid feed. Insect attracting plants have been planted up around the orchard particularly in those places where the nettles tend to be invasive. Some were donated by the Broadclyst Gardening Club and include Centaurea (Mountain Knap Weed), Lupins, Aquilegia (Columbine), Sedum, Golden Rod, Mullein, Teasel, Galathus

(Snowdrops), Muscari (Grape Hyacinth), Primroses and Melissa (Balm) as well as some Raspberries, Currants and Elder. We've even tried a marginal cereal / wildflower feature on an area where the ground contains a lot of rubble. In addition we've started putting in nesting boxes for Blue and Great Tit, donated by the RSPB, and plan insect hives.

Finally thanks must go to all those who have contributed to the orchard, particularly financially through grants, sponsorship or through direct involvement. A full list is on our website, but I must mention HogCO (Home Grown Community Owned), Defra's Greener Living fund, the Broadclyst Parish Council and of course the National Trust without which it wouldn't have happened. Hopefully this will grow into an important community asset of value for generations to come. For more information <http://farm.broadclyst.org> or to get involved please contact Crispin Adams at [projects@exeter-apples.org.uk](mailto:projects@exeter-apples.org.uk), or Cerian Henshaw, at [communityfarm@broadclyst.org](mailto:communityfarm@broadclyst.org) or on 01392 881797

**Totnes Transition Town, Fruit and Nut Tree Planting Project** has been working locally with Trees for Health to flood Totnes with viable fruit and nut trees. This season they have cleared and mulched around the trees previously planted at Follaton Arboretum. Helped some of the pupils of St. John's primary school in Bridgetown plant a few fruit trees supported by the Totnes Quakers. Apple, quince and plum trees have been planted in the town cemetery. Many of the old varieties of apple trees in KEVICC were completely de-barked during the hard winters by deer. TTT teamed up with KEVICC to plant more nut trees in the school and college grounds. Despite the grizzly conditions a determined team of students helped plant and guard; Sweet Chestnut, Almond, Walnut and Hazelnut trees around the college, partly funded by the Tree Council. The Sharpham Estate tree planting on Sunday Jan.30<sup>th</sup> organised by the Sharpham Co-ordinator, Susie Nicholls was fantastic. The sun shone brightly as a grove of hazels were planted it is accessible from the cycle path and beyond the willow beds. Noise of children rushing down the sloping fields and companionable digging, returning to Sharpham house for a delicious soup, and stories told by Peter Oswald by a warm fire. The last small tree planting of this winter was on Sunday Feb.20<sup>th</sup>, when almonds were planted in upper Bridgetown, and a few more hazel saplings in the 'chicken-run', the steep wooded path that runs from Weston Lane playing field to Elmirst playing field. We combined this with feeding some of the trees already planted in that part of the town. More trees are destined for Follaton Arboretum next winter. Anyone who wants to join in the Tree planting scheme, sponsor a tree or be a tree guardian, please contact **Holly Tiffen** ([hollytiffen@yahoo.co.uk](mailto:hollytiffen@yahoo.co.uk) or **01803 732545**) or **Wendy Stayte** ([wendystayte@yahoo.co.uk](mailto:wendystayte@yahoo.co.uk) or **01803 868305**).

## Origins of the cultivated apple

by Gill Gairdner

For a long time it was believed that the cultivated apple was a hybrid deriving from the European apple, *Malus sylvestris*, the Siberian crab *Malus baccata*, and possibly other *Malus* species. The opening up of Central Asia, however, together with advances in molecular genetics, enabled Barrie Juniper and David Mabbertley to establish that in fact all variation in domestic apples originates from the wild apple species *Malus sieversii* growing in the Tian Shan mountains of Kazakhstan. Their findings were published in 2006, in a book called *The Story of the Apple*. As Roger Deakin describes in *Wildwood*, the *Malus* genus probably evolved 12 million years ago in central and southern China. Contemporary wild species suggest that the fruits were small, hard but edible, like a rowan's, and similarly spread by birds. Certain species moved northwest, into the area which great geological upheavals then transformed into the Tian Shan mountains. It is thought that just one or two apple seeds crossed these mountains to establish in its fertile new environment, while the spread of the Gobi Desert prevented any movement back.

Although *Malus sieversii* is slow to hybridize, its heterozygous nature means that propagation from seed produces a huge diversity of apple characteristics. The selection process was now dominated by the Tian Shan population of deer, bears and wild pigs, plus herds on the steppe of wild horses and donkeys, all of which favoured the larger, juicier fruit. Pips passed through the inefficient guts of these animals and germinated in the dung. As the apple moved westwards, it grew in size, and was undoubtedly attractive to those travelling along the great trading route to and from the Mediterranean. Knowledge of grafting predates Christ, and it is known that Alexander the Great brought skilled gardeners back to Greece. Three hundred years later, the Romans arrived in Britain, carrying cultivated apple trees with them.

A relation of mine who grows apples commercially in Hampshire visited Tian Shan last year and reported that his guide, a conservationist working for a Global Environment Facility project, had come to the conclusion that human impact -overgrazing and so on - represented the most serious threat to the survival of this vital source of genetic material and considered efforts to control this impact were of much more importance than *ex situ* conservation schemes. My relation returned from Kazakhstan with a collection of pips, however, and is going to see how far he gets without the help of a bear's intestines.

