

PLANET FOOD

October 2001

APPLES

EDITORIAL – September 2001

Shortly after we moved to Tintinhull House, which belongs to the National Trust, I decided to check out the orchards. Out of the bathroom window and over the garden wall the orchards are a beautiful background of green, with sparkling red apples in the Autumn.

I am sorry to say that having munched a sample from every tree, there wasn't one that I was keen to try again. Living in the heart of cider country, it appears the orchards were planted for their juice, rather than for eating. Luckily, both my mother and sister have delicious apples – enough to satisfy my apple-keen children during the season.

For a long time I have been wanting to visit **Brogdale Horticultural Trust** – the home of the National Fruit Collection. This column gave me a good excuse to make the effort – it is based in Kent and quite a long way from Somerset.



At Brogdale they grow over 2,300 varieties of apples. Although I didn't have time to hear about them all, my guide had a fascinating wealth of stories about many of the varieties grown. Brogdale are in the process of creating a massive database about their apple collection but have not yet expanded the project to include the rich historical background as well.

This month I am going to look at growing apples, why there are so few apple varieties for sale, why we import vast quantities of apples, even during the season and look into the issue of pesticide residues. And I will also be telling you more about **Apple Day**, initiated by **Common Ground**.

APPLE GROWING

I realise that I was extremely ignorant about apple growing before I started researching the subject. The first basic fact I learnt is that apples are rarely, if ever grown from seed. This is because if you plant an apple pip in the ground, you will not get a tree producing the same variety of fruit as you planted. It will have been cross-pollinated with another variety and the type of apple you get is a lottery.

Anyone wishing to grow apples will buy trees made up of a root-stock with their chosen variety grafted onto it. Root-stocks are very important because they determine the size and structure of the tree, and potentially make a difference to its fertility too. Some research is being done at the moment to assess the benefits of producing apple trees on their own roots. This is at its early stages, but the theory is that this is more natural and might produce better trees. If the results are positive, it could well become a recommendation for organic growers.



Most organic apple growing is done by hobby gardeners. It is not very easy for commercial growers for a number of reasons. First, the fact that they are growing lots of apples together means they are concentrating all the pests and diseases. Essentially they need to have mixed farms with nuts, apples, pears and plums so that no one pest gets the upper hand. Second, one of the main organic approaches to dealing with dealing with diseases is to choose resistant varieties.

At present there is research being done into the best varieties to grow but there is still some way to go before there is a comprehensive list for those wishing to plant organic orchards. Bob Sherman from **HDRA** says that organic growers don't have much in their armoury, against problematic fungal diseases, and the things that are used, people are not comfortable with. But he says it is only a matter of time before some organically acceptable fungal treatments will be available and there will be more information on variety selection too.

The vast majority of organic apples sold in Britain are imported from America, New Zealand and Eastern Europe. Whilst the British climate is good for the flavour of apples, the down side is the cool, wet and windy weather is conducive to fungal problems. Another issue for British apple growers is that labour costs here are high.

2B APPLE VARIETIES

"Cox is a disease prone variety and the British palate has been tempered towards it"

Everyone I interviewed about apples agreed that it was a great pity more apple varieties were not sold in the supermarkets. Common apple varieties available to us include *Cox's Orange Pippin*, *Braeburns*, *Egremont Russets*, *Granny Smiths*, *Bramleys* and *Golden Delicious*. But there are many more that we could be buying, if the supermarkets were a bit more adventurous, able to buy smaller quantities – perhaps local to the area, and were not so rigid about the cosmetic appearance of apples.

Apples apparently started in Asia Minor – Kazakhstan - and migrated westwards along the caravan trail. It is thought that the Romans brought the first apples to Britain. Now we have over 2000 varieties, many of which are really delicious. And yet, even in the middle of our apple season, we are importing from New Zealand, Australia And France. **Common Ground's** Sue Clifford says 'it's monstrous'.

Whilst **Brogdale** is a kind of working museum of apple varieties, **Common Ground** is all about encouraging local tree varieties – often provide by Brogdale - and knowledge about them. Sue Clifford wants to turn people on to varieties like the *Devonshire Quarrendon*, *Kewsick Codlin*, *Norfolk Beefing* and the *Yorkshire Cockpit*. She thinks that people are beginning to develop an interest in apple varieties, similar to an interest in different wines.

The French brought *Golden Delicious* back from Algeria in 1958. They have been tremendously successful marketing it throughout the world. Apparently, it is a really delicious apple when it has fully ripened, but exported apples are generally picked before this, which diminishes the flavour.

British fruit growers decided to combat the French success, by marketing one big brand apple in return – the *Cox's Orange Pippin*. Unfortunately, although this is a good tasting variety, it is also universally agreed to be particularly prone to disease, which means it does need to be regularly sprayed and it would not be possible for commercial crops to be organically grown.

Sue Clifford thinks it is a pity that the British producers did not see the argument for richness and variety. That is partly what Apple Day (see below) is all about. Another problem for apple varieties is that there have been several years of grubbing up orchards, as a result of EC grants, conceived to combat the oversupply of *Golden Delicious*.

We cannot entirely blame the supermarkets for the lack of apple varieties. After all they provide what the consumer wants. We need to make it clear that we want is a wide selection of British apples and that we can put up with produce that might not fit our apple stereotype.

APPLE DAY

Apple Day is an annual event, held in the middle two weeks of October when there are hundreds of apple-related events around the country. **Common Ground** started it in 1990 but anyone is able to take part. The **National Trust** for instance organise special events and apple-rich menus in many of their properties. And **Brogdale** have 10 days of apple day celebrations and they claim it's the best!



Interestingly, the idea of farmer's markets grew out of Apple Day – set up by Bath and NE Somerset Council, in 1998. Now farmers markets are a national phenomenon and worth millions of pounds.

See Common Ground's website for more details of what will be happening this year:
www.commonground.org.uk

DO WE NEED TO PEEL APPLES BEFORE EATING THEM? *Unfortunately yes!*

Friends of the Earth Real Food Campaigner, Sandra Bell, says yes Government advice still recommends that apples are peeled before eating. The National Farmers Union, Crop Science Advisor, Christopher Wise thinks we are getting to a point where Government advice may change.

I don't know what to advise, but I do know that I don't find it at all acceptable that we should be growing fruit in a way that requires us to peel it before eating, particular since much of the 'goodness' resides in the skin. So I tried to find out more:

On the positive side, pesticide use in apples has declined in the last eight years. Apple growers are using 'predictive management techniques', which essentially means, finding out the scale of the pest problem and spraying appropriately, rather than blanket spraying the crop in case something might attack it.

Apparently the quality of an apple skin is decided soon after blossom – grazing mites can cause a russet-coloured blemish. So, early in the season trees are sprayed for apple mite and mildew. And later on for codling moth caterpillars. This means that between July and September, commercial apple orchards will be sprayed on average every 2 weeks. But, by law, there is a much longer 'harvest interval' between the last spraying and when the apples are picked.

On the negative side, the latest results for residues on apples (2000) showed that 72% of apples sample contained residues and 35% had more than one pesticide, although none were over the legal limit. One of the pesticides that occurred most regularly was an **organophosphate** called **chlorpyrifos** (see box) and carbendazim, which is a suspected hormone disrupter.

Even if you are only concerned about residues exceeding legal limits, we cannot rest easy. In September 2001 there was notification from Iceland, that they were recalling some French Golden Delicious apples because they felt that the high levels of residues found was an unacceptable risk to consumers.¹

The big issue here is that the demands of the consumer, via supermarkets for perfect quality unblemished apples, means that more spraying is required. Personally, I would rather have residue-free produce, with a few blemishes, and feel happy about eating the skin!

¹ 18 September 2001, EU Food Alert System: Dicofol, Chlorpyrifos, Parathion-Methyl and Dimethoate in Apple from France via the Netherlands.

FRIENDS OF THE EARTH SAY 'CLOBBER CHLORPYRIFOS

Friends of the Earth (FoE) is demanding that Britain bans the dangerous pesticide chlorpyrifos. The Americans have severely restricted it due to concerns about children's health US². No such action has been taken in the UK and chlorpyrifos is one of the most commonly found pesticides in UK food. It has been found on apples, grapes, strawberries, oranges and celery³, as well as being used in a couple of home and garden pest control products.

Chlorpyrifos, is an organophosphate pesticide, which works on the nervous system.

30 YEARS, 30 ACRES & 30 VARIETIES

Interview with Duncan Small, Charlton Orchards

"We have been ploughing a lone furrow for a number of years but now coming into its own"

Duncan Small works with his father at Charlton Orchards, which was first planted in 1947. About 30 years ago they decided to buck the trend of planting just Cox's and Bramleys, by expanding into lots of different varieties.

Thirty of the thirty five acres are apple trees. The rest is pears, plums and soft fruit. Although Cox's is still their biggest crop, its acreage has been reduced, compared to the other varieties.

The farm used to sell to supermarkets but now concentrate on farm shops, farmers markets and supplying local fruit and veg shops. Duncan says that supermarkets tend to be interested in large volumes of one variety, over a long period, whereas they have small quantities of lots of varieties over a short period.

On average the apples are sprayed every three weeks, but this varies depending on the weather. They spray against mildew and scab between April and end of July and only spray for pests if they are in danger of ruining the crop. With codling moths, they set up a pheromone trap, which sends out the smell of the female sex hormone and attracts any males in the orchard. From this they can determine how many moths are around and whether it is necessary to spray. They also have lots of nettles and weeds to encourage predators.

Customers and marketing agents regularly take samples of the apples and test them. To date there has not been a problem on that score.

Charlton Orchards also sell apple juice. Initially the idea of this was to use up unsaleable apples, but the market is growing all the time – they have effectively had a 20% increase every year in the last few years. They put the names of the apple varieties on the bottle, which encourages interest.

The apple juice is pasteurised so it keeps for quite a long time. Charlton Orchards have three cold stores, which enables them to store 150 tonnes of apples. They aim to clear them by the end of February. Between May and July they do strawberries and in August they have lots of plums, so they keep busy throughout the year.

Duncan says that they have chosen varieties that have gone out of fashion with the supermarkets, but that taste good. He points out that selling at farmer's markets means they can talk to consumers and get them to taste the produce.

² US Environmental Protection Agency, News Release, 8 June 2000

³ MAFF, annual reports of the Working Party on Pesticide Residues, 1995, 1997 and 1998

ALL CHANGE ON THE APPLE FRONT

Interview with Mathew Wilson of Oakwood Farm, Sussex

Oakwood Farm was a conventional 40 acre apple farm until 1997, when Mathew Wilson decided to go organic. They achieved full organic status on 1st September 2000 a date, which seems imprinted on Mathew's mind. The decision to change course was spurred by the recognition that fruit growing was increasingly unprofitable and there was a burgeoning interest in organics.

Mathew was not able to start from scratch. His challenge was to convert an existing orchard. And he says that he's still sorting out the issue of which varieties to grow. His current commercial crop is quite mainstream varieties such as Cox, Fiesta, Johnnagold, Egremont Russet, Idared, Sparton and some Adam's Pearmain. Another half a dozen or so are on the verge of becoming commercial. And he is planning to introduce 10 new varieties both this winter and next. At the same time he is increasing the variety of pears and plums.

Apple varieties are chosen by Mathew primarily on the basis of flavour and resistance to disease. He says that he scours books on apple growing to establish which varieties have been grown extensively in the past and which are reported to be vulnerable to different pests or diseases. The fact that he has to do much of this research himself is a reflection that not enough independent research is being done to find out which varieties are best suited to organic.

One interesting difference between Mathew and the other apple experts I interviewed was in respect to Coxes Orange Pippin. He says he is happy to grow this apple and that although they are susceptible to disease, they are by no means the worst. But he does think they can be difficult to make sure they get enough nutrition for a good crop.

One of the biggest changes for Oakwood Farm was stopping herbicide spraying around the trees to clear the ground. This has meant that weeds and other vegetation have grown and initially compete for water and nutrients with the tree. Apparently Mathew's trees are only just beginning to look less yellow because the soil has now had a chance to get in balance. The advantage of the weeds and wildflowers is that they encourage tens of thousands of micro flora and fauna to re-establish below the ground. They also encourage pest predators.

Mathew thinks that many of his customers actually like finding a bit of blemish on an apple because it confirms its origins. But any apples with insect damage or lots of blemishes are used for juice – Oakwood Farm produces both apple juice and cider.

Oakwood Farm was previously reliant on the wholesale market and an occasional brush with a supermarket. Now they sell everything themselves, delivering to local shops, box schemes and secondary wholesalers. The organic apples cost about 40% more, which makes up for a reduction in yield.

Although the competition in organic apples is increasing all the time, the market is too. Mathew feels that there is plenty of room for more converts!

APPLE CONTACTS

BROGDAL HORTICULTURAL TRUST is home to the National Fruit Collection with the largest collection of fruit trees and plants in the world. They offer orchard tours, run a plant centre and hold a number of special events and courses throughout the year, including around Apple Day. You can also arrange to have your apple varieties identified by experts.

Tel: 01795 535286 / www.brogdale.org.uk

CHARLTON ORCHARDS grows lots of different apple varieties and sells both apples and juice, locally. Creech St Michael, Taunton, Somerset TA3 5PF / **Tel: 01823 412959**

COMMON GROUND focuses on local distinctiveness from buildings and natural history to cultural connections. Along with advocating saving old orchards and creating community orchards, Apple Day was their idea and details of Apple Day activities are on their website. They have also recently brought out a book called *The Common Ground Book of Orchards*, which is full of everything you might want to know orchards as well as apples. **www.commonground.org.uk**
Gold Hill House, 21 High Street, Shaftesbury, Dorset SP7 8JE / **Tel: 01747 850 820**

FRIENDS OF THE EARTH, *Real Food Campaign*, started a couple of years ago, initially focusing on GM issues. They now focus on how farming needs to change in a more sustainable direction towards a system which gives farmers a fair deal so that they can produce high quality safe food and to protect the environment. **Tel: 020 7490 1555 / www.foe.co.uk**

HDRA – the organic organisation is dedicated to developing and improving organic techniques of fruit and vegetable growing, as well as every aspect of decorative gardening. Their most recent publication published on September 27th is *The Organic Gardening Encyclopedia*, published by Dorling Kindersley at £25. Their Apple Day is October 14th 2001.

HDRA, Ryton-on-Dunsmore, Coventry CV8 3LG / **Tel: 02476 303517 / www.hdra.org.uk**

NATIONAL FARMER'S UNION is the trade union for farmers.

Contact details: **Tel: 020 7331 7200 / www.nfu.org.uk**

SOIL ASSOCIATION set organic standards for apple growers and provide technical support and representation for organic farmers and growers.

Tel: 0117 914 2402 / www.soilassociation.org

SUSTAIN campaigns on the environmental and social impacts of food production. In 1999 they published a report entitled '*How green are our apples*'.

Tel: 0207 837 1228