



The Abundance Handbook

A guide to Urban Fruit Harvesting
(Learning from our experiences of harvesting in Sheffield)

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Abundance harvests trees across the city on industrial waste sites, roadsides, the grounds of mansions and back yards.



We harvest a range of soft fruit, top fruit and nuts.



Over fifty volunteers of all ages and from many different backgrounds harvest and process the fruit.



Fruit is distributed to Surestarts, community groups, community cafes and individuals across Sheffield.




We receive tip-offs by word of mouth, text and email as to where to find ripe fruit trees.



The greatest journey any fruit travels from tree to mouth is five miles often by bike and trailer.



We have found at least fifty varieties of apples and more than twenty varieties of pears. 

We give away hundreds of fruits and lots of freshly pressed juice. 


Tree owners are offered the first share of fresh fruit. 

We make juice, cider, jams, preserves and pickles from the damaged and bruised fruit. 

We leave plenty for the birds and the soil.

 We carry Abundance through the winter by teaching people how to prune their trees. 

Abundance taps into a huge public enthusiasm for and appreciation of local produce.

 We are rediscovering Sheffield as one big orchard.

The Abundance Handbook

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<http://www.growsheffield.com>
<http://www.growsheffield.com/pages/groShefAbund.html>



Abundance binds us to the cycle of the seasons, it slows us down to the ripening moment of each fruit. Each tree was born from the water running through the soil, a tossed apple pip, a carefully tended sapling, the slant of the sun, a bird shitting, a foot falling in the right place – the elements, creatures and humans coexisting in the city.

An eclectic mix of feral and cultivated varieties of soft fruit (damsons, plums, greengages), top fruit (apples, pears, quince, medlar, peaches, apricots, cherries) and nuts (hazel, walnut, chestnut) create a dispersed and surprising urban orchard across the city. The project is simply a rediscovering of this value of trees for food, and a claiming and celebration of a shared inheritance that many of us never knew we had. Abundance helps us to find ways to play our part in its propagation and extend this inheritance into the future.

Abundance slips between and prizes open the idea of ‘private and public’ by harvesting, through agreement, collaboration, reciprocation and permission where appropriate, in backyards, church grounds, hospital car parks, industrial estates, waste land, streets, scrub, derelict property, private businesses, public authority housing, parks, green spaces and turns ownership on its head by distributing these private ‘resources’ publicly. Abundance is also the fruit of others’ labours – the act of individuals planting fruit trees with or without the knowledge that future generations would be able to reap the benefit. People over many generations have recognised the value of fruit trees for their harvest of low-effort food, and again now in the early 21st century cultural trends and necessity for local fresh food are leading many people to plant fruit trees in cities.

Abundance is the fruit tree’s attempt to restore itself each year into the ground; producing the seeds inside the fruit for the next generation, which will sit in the ground waiting to germinate when the conditions are right. Each tree can produce hundreds of fruits year after year. Abundance acknowledges that other people and creatures have an active relationship with each tree – each tree is a living ecology. We leave some of the fruit on the ground and in the tree for wildlife, and we are careful not to collect from trees that are obviously harvested locally. Like all shared resources, these trees need to be maintained and nurtured, and other members of the ecological community need to be respected. Abundance as a city-wide community project has its own obsolescence built in. By focusing on this common resource and the growing cycle, the aim is to encourage other groups to care for their own trees at street level and to distribute to neighbours, friends and local institutions on the doorstep.



ABUNDANCE
HANDBOOK

Hello!

Abundance WAS SET UP by Stephen Watts and Anne-Marie Culhane in 2007. Stephen is a food grower, artist and wild food forager and Anne-Marie is a community and environmental artist working in rural and urban areas. Stephen had been spotting fruit trees across the city over a number of years and harvesting them for his own needs, and together they decided to find a way to share the bounty with others.

CURRENTLY, 95 PER CENT of fruit and 50 per cent of vegetables in the UK are imported. DEFRA stated that in 2005 we imported 71 per cent of our apples, and many of our imported apples come from distant lands such as New Zealand, over 12,000 miles away. Many of these fruits are produced using intensive methods, which are heavily reliant on oil-based farming systems, and are then transported using fossil fuels. If we can harvest our own Abundance, in our own neighbourhoods, in season, fresh from the tree, there are many reasons to celebrate!

THIS HANDBOOK IS based on our experience of running an urban harvesting project for the last two years. Depending on your background, experience and situation you may find some parts more or less relevant. There are a number of different ways of running an urban harvesting project. We invited Johnathan Leake, a soil scientist to comment on queries around pollution in cities. The handbook includes a number of wonderful illustrations by Jo Salter and Monika Mitkute and photographs which are credited in the references. The Handbook is about the way we decided to do things and our particular learning and experiences over the first two years. Our project is still evolving... and the way we decide to run Abundance is just one way of many. We hope that at least some of it will inspire and inform!

The Handbook offers sections on:

Section 1

Our Philosophy - The guiding principles of Abundance

Section 2

Preparing for Abundance - Scouting and leafleting, Trees and tree owners

Section 3

Spreading the word, Communicating with volunteers, Funding

Section 4

The Harvest - Timing, Fruit chart, What time to harvest, Harvesting gear, Shakers and catchers, Getting it sorted, Transport

Section 5

Storing, Processing and Distributing - Sorting the fruits of your labours, Pressing the fruit, Preserving the fruit, Abundance Week and Encounter Abundance

Section 6

Mapping and Recording

Section 7

Pruning

Section 8

Planting

Section 9

Pollution

Section 10

Abundance Possibilities

Appendices

References

Thank you's!

Our Philosophy

We set up **Abundance** with nine guiding principles in mind:

Gifting

The freshly harvested fruit is given away for free. **Abundance** is about getting fresh fruit to local people who otherwise wouldn't have access to it, and volunteers are rewarded with lots of fruit. We encourage people to eat it, juice it, cook with it, make jams, preserves etc. We are currently deciding whether gifts of various **Abundance** products, i.e., jams and chutneys, can be designed to encourage contributions to raise revenue for the project's needs, still holding to the founding principle that the initial harvest of fresh fruit is free.

Networking & letting it happen

Abundance works with lots of different organisations and individuals. The joy of **Abundance** is a simple and commonsense idea most people can 'get' easily, and it makes use of and connects with existing knowledge and networks. **Abundance** grows from human relationships. For us **Abundance** was about letting the project develop naturally rather than dictating how many trees, how much and how often. **Abundance** is not suitable for people who expect to hit 'targets'. It's wonderfully unpredictable!

0% Waste

Abundance aims to have zero waste, so fruit is either eaten, stored, preserved or pressed or composted or fed to animals.

Food miles & carbon footprint

One of the aims of **Abundance** is to highlight the huge distances our food usually travels before it reaches our mouths. Even when food is in season in this country, it is still imported or travels extensively around the country to processing and distribution points before reaching our plates. **Abundance** also aims to reduce the urban carbon footprint by making use of local food and encouraging more local growing, cultivation and harvesting. We aim to minimise car use and to use bike transport and trailers if at all possible to harvest and transport the fruit.

Care & awareness

Abundance makes sure that every tree harvested on private land is undertaken with permission of the owner and with respect for property. When trees are located on public land then the trees are seen as a public resource. If there is any evidence that a public tree is being harvested by others we do not harvest it. Care is taken not to damage the tree and some fruit is always left on the tree for wildlife and to drop and rot back into the soil.

Growing & permaculture

A **Abundance** is keen to encourage food that is free from chemicals or pesticides. While we have no way of knowing the history of many of the trees, most of them are neglected and therefore are not subject to intensive growing techniques. We would not knowingly harvest a tree that had been treated with chemicals - see *Pollution* for more information on this subject. **Abundance** is informed by permaculture principles - in the words of Bill Mollison, “*taking responsibility for our own existence and that of our children*”.

Education

A **Abundance** aims to educate people about the value of fruit trees in terms of human health, nutrition and ecology. We aim to pass on the skills to create and maintain a fruit tree. Fruiting is only one part of a natural cycle that continues throughout the year. We aim to develop this understanding by running fruit tree pruning courses in winter and spring and increasing people’s knowledge of the importance of soil fertility and tree propagation through grafting and cuttings. We also document the project through photographs so we can communicate the ideas and methods to others in a colourful and interesting way.

Inclusive

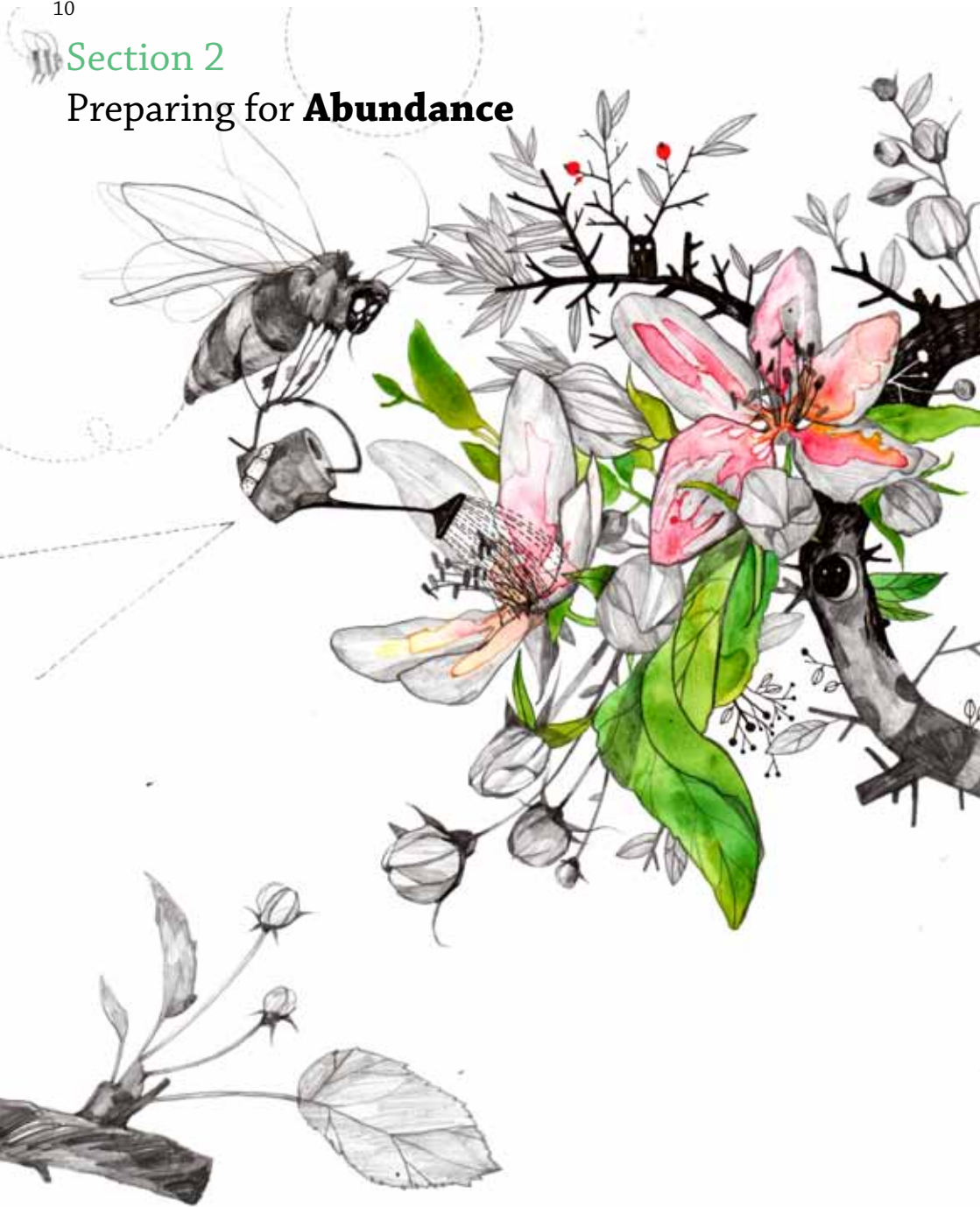
Everyone can take part in **Abundance** – whatever age or ability. There are many different parts to the project, and there is a role for everyone.

Fun!

We enjoy taking part in **Abundance**. This provides a major motivation for why we do it and why people get involved and become harvesters! For us it is about celebrating the harvest and bounty with others, along with all the other positive aspects.

Section 2

Preparing for **Abundance**



Preparation

This section covers some of the things you might want to think about or do before the harvesting begins.

Thinking about how to organise

It is important for us when we are planning things to be aware how much time we can give to the project. It all depends on the scale of the project and the size of your area.

On a project of the scale of Abundance in 2008, roughly as much time needs to be spent on organising and planning how the harvests will happen as on the harvesting itself. Our project can be full-time or more, and even so in high season we just can't get to all the ripe fruit in time! We had a small core team of people organising. The harvest co-ordinator is at times full-time, and other people working on organising distribution spend one to two days a week, with others helping with different tasks. It may be an idea to split or rotate the tasks and train people to buddy you or help you with different tasks. You may have a lot of people wanting to be harvesters but not so many interested in the other roles. If you really need help from people to do specific tasks, be confident in asking for assistance. If you explain to people why other tasks are as important as harvesting to make the project work, people will feel much happier helping out in other areas.

Other project areas that can be delegated and may appeal to someone who wants a specific role include: documenting the whole project (through photography, film, drawing, text); recording data and identifying varieties – helping put all the information on maps and charts; sorting fruit – which can be done at any hour of the day so may suit someone with unusual work hours; volunteer liaison; designing flyers and posters; co-ordinating chutney-making or fruit pressing; scouting and giving out leaflets; distributing fruit; providing transport.

In 2007 we ran the project from our homes. This was really friendly and informal, but it got a bit much once the bath was full of apples! By 2008 we had an office, a shared computer and storage space in an old school.

Some tips

Prepare early and reap the rewards come harvest time!

Thinking about the harvesting process

Being ready to harvest before the fruit fall season is important. The way we run the **Abundance** project requires a number of different skills and some forward planning.

Harvesting is about knowing when a fruit tree is going to crop, how to harvest it and how to use it. It also involves getting a group together to harvest the fruit, getting the owner's permission if it's a private tree, getting the equipment together for harvesting, finding somewhere to store the fruit, knowing of places to distribute the fruit to and working out how to transport the fruit.

Much of the above will be described more fully later. Harvest time can be quite intense and unpredictable, hence the word GLUT! It all comes at once!! So it's really good to have thought some of these things through. Not that this should stop you from going out and spontaneously harvesting! And please remember that our project has grown quite big – you may be operating on a very different scale.

It is helpful if someone in your group has some knowledge of harvesting and fruit trees and knows where some fruit is already. The first year we did **Abundance**, Stephen had already made a map of over 80 fruit trees, both public and private. However, if you start from scratch, fruit trees are pretty easy to spot once you start looking. If you don't have a grower as part of your group, you may want to have an advisor or mentor for your project who can help with identification and other queries and increase your knowledge, although you'll soon learn lots through taking part in the project.

Scouting & giving out leaflets

“I couldn't believe it when I first started spotting fruit trees – they were everywhere!” *Anne-Marie Culhane*

Scouting is looking for trees to harvest. You can get a rough idea at blossom time in April-May. By August-September you will be able to see fruit forming on the trees. There are two main times to go scouting: firstly looking for prospective trees to harvest and second to check out that the trees you intend to harvest are ready to be picked just before your harvest trip. You don't want to get out there with a load of people only to find the fruit is not ready or already rotting on the ground.

Scouting and giving out leaflets to people with trees or in areas where

SHEFFIELD

ABUNDANCE

ABUNDANCE is a Sheffield based project to harvest the seasonal glut of local fruit, like apples, pears and plums. Each year hundreds of fruits go unpicked either because people aren't physically able to harvest themselves, there are too many at one time or people don't notice them. Abundance is a team of volunteers who want to help people harvest their fruit and redistribute the surplus amongst the community on a non-profit basis.

How you can get involved:

HAVE YOU GOT A FRUIT TREE? DONATE PART OF YOUR TREE'S HARVEST FOR DISTRIBUTION TO THE LOCAL COMMUNITY. Donators of fruit will have their fruit picked and will get first share.

VOLUNTEER TO BE AN URBAN HARVESTER and GET INVOLVED WITH PICKING, DISTRIBUTING AND/OR PROCESSING Volunteers will have the pleasure of eating fresh, ripe fruit, finding out more about urban food growing and working alongside enthusiastic people!! Work will be suitable for all ages

Please contact us:
 Stephen 0796 2961194 maxsalad@googlemail.com
 or Anne-Marie 0784 9073394 wook5@hotmail.com

Abundance is part of a series of creative events and activities this Autumn promoting Sheffield as an urban food growing landscape. See GrowSheffield.com for more details.

^ A sample flyer for the Abundance Project

you know there are fruit trees can happen any time during the year, but we have found it works best for us to put energy into promoting the project from Midsummer until the harvest comes in August. This will obviously be different if you are in another country. People will notice the fruit on the trees as it starts to swell around midsummer and ripen and your leaflet will remind them of it! We continue to give out leaflets throughout the harvesting season. We gave out leaflets to several hundred houses and where possible spoke to the owners of fruit trees, introduced the project and asked if they would have spare produce or would want some help with harvesting their trees. We explain that the tree owners get the first share of the harvest. If the people aren't at home, then you can leave a personal note on the leaflet. If the leaflets are attractive and well printed with clear contact details on them, people seem to notice them and remember the project. We try to document the address where we saw the fruit tree and the owner's response and contact details so we don't double up or bug people too much! Some people are nervous about giving people access to their property, so it helps them gain confidence if you are organised, friendly and efficient. You could have a badge or some kind of project ID. Most people seem really happy to talk about the project and their fruit trees, and many also suggest other trees they know about.

Some tips

Prepare early and reap the rewards come harvest time!

Scouting during the harvest

It is helpful if someone in your group has some knowledge of harvesting and fruit trees. If you start from scratch, fruit trees are pretty easy to spot once you start looking. In early summer you can see the fruit on the tree, and you will start to become aware of the generalised shape and leaves of different fruit trees. You may want to have an advisor or mentor for your project who can help with identification and other queries, although you'll soon learn lots through taking part in the project.

During the harvest period it is ideal if a scout can go out and plan which trees should be harvested on the next harvesting trip and check that they are ready. This takes a couple of hours (depending on the size of your harvesting area) and can happen, say, the day before a harvesting trip. This helps with harvest missions because the group of volunteers gets a clear run of trees, and also owners will know when you are likely to turn up. It is good to go scouting by bike, and it's often easier to see trees from your bike. The scouting role helps to increase efficiency.

Some of our harvest trips were inefficient because we hadn't had time to do scouting visits and people weren't at home or fruit wasn't ready to be harvested. It is helpful if you can try and assess the quality and quantity of fruit at scouting stage, as this will be SO variable. Also we are careful to not harvest a tree if it looks like it is already being harvested by the local community and this can be checked.

Scouting will help you when planning how many people are needed to harvest, transport needs etc. Don't worry if you don't have the manpower to scout each trip, but prepare your harvesters for the fact that there may be delays or trees that don't quite match up to expectation! Some of the harvesters have very high expectations of an urban pastoral experience, with golden sunshine, laughter and an endless run of bountiful trees! While we try to provide this experience there can be hitches! When you have built up experience of the trees, you will remember them each year and know instinctively when they will be ready to be harvested so you won't need to pre-check them.

Fruit trees & tree owners

We find out about fruit trees through scouting, phone calls, word of mouth, texts and emails from tree owners or tip offs from people who have spotted fruit. However you get to hear about a tree, it is helpful to get a clear understanding of the tree or trees at a site. Information about its **size**, **accessibility**, the **quality** and **quantity** and when it's **ready** to be picked is all useful info. It's useful if you can find out what **variety** it is, since this will determine roughly when it should be harvested... although with over 5000 known varieties in the UK this may be challenging! Most importantly get the **exact location**. We have been out harvesting and wasted time searching for trees because of vague directions on our lists!

Knowing the **size** of tree determines the harvesting method (see Harvest section). Knowing the **quantity** of fruit determines how many boxes you will need to bring and what mode of transport you need, and knowing the **access** determines whether you can actually get into or under the tree safely, whether you need the owners to be there to let you into the garden, and how far you will need to carry the fruit. Some trees are too difficult to harvest unless good access is created. For example, some fruit trees' trunks might be growing out of hedges, which makes them hard to get into, and some trees have a very dense branch structure making climbing difficult. Difficult access is sometimes why the owners don't harvest the fruit for themselves.

Some tree owners are very helpful and knowledgeable about their tree(s) and will tell you all you need to know. Some tree owners don't know their trees very well and may need guidance with this.

Sometimes we've been called to harvest trees that aren't **ready** to harvest, and sometimes we have gone to harvest a tree with the idea that we were going to get a few boxes but come away with ten! Letting owners know when you are coming, even if permission has been granted, is recommended. It's best if they are at home, so that you can get them involved in harvesting and the project! Offering the owner a share of the best fruit definitely helps to build a positive relationship.

We collect all the data about the trees and owner contact details in a chart as well as on an internet Google™ map (see section on Tree Charts).

Section 3

Spreading the word



Spreading the word

How to promote your Abundance project.

Posters & leaflets

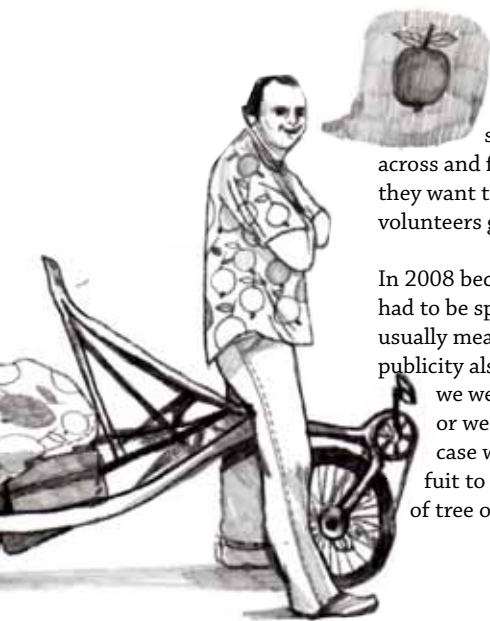
People have responded really well to our posters and leaflets. It helps if the publicity material looks exciting, interesting and colourful. The posters and leaflets had basic information about the project, a request for volunteers, an invitation to donate a tree, and contact details. We distribute posters to shops, libraries, schools, houses, community groups, and leaflets are supplied to growing groups, allotment groups and other linked organisations, i.e., the Soil Association by post and email. Designing, leafleting and putting up posters can be much more enjoyable working in pairs or teams. We also tell people about the project - word of mouth seems to make things happen fast!

Press coverage

In 2007 **Abundance** we got an article in our city newspaper, the *Sheffield Star*, which led to a wave of press coverage and included national TV and Radio coverage in both years including Channel 4's *River Cottage* and Radio 4. We also sent out a few press releases which were emailed to various local press and contained a lively paragraph about the project, with contact details. We found that press coverage can make a major impact on the project! You may also want to target

special interest magazines about certain aspects of your project, i.e., varieties you have found, the local food sustainability aspects. Just be warned that the press may have a particular angle they want on your project so its good to be sure about putting your own point across and feel confident about asking them what sort of questions they want to ask you... so you can have some time to prepare. Many volunteers got involved by hearing about the project in the press.

In 2008 because of the huge influx of potential trees to harvest we had to be specific with the ones we really wanted to harvest, which usually meant the nearest ones, so as to reduce transport. The extra publicity also meant that people contacted us about trees which we were just unable to harvest, because they were too far away or we just didn't manage to organise ourselves in time. In this case we suggested to these people that they could bring the fruit to our store and we could distribute it for them. A number of tree owners did this in 2008.



Communication

Where possible we try to make initial contact in person or by phone.

Abundance is so much based around teamwork and we wanted to speak to every volunteer personally before they came out harvesting.

Websites, The Internet, & Mailing Lists

We have an active website that has lots of images and photographs, is regularly updated and provides detailed information about the project. We get lots of hits on our website particularly at harvest time. You could also set up a simple and effective blog site like **Abundance Manchester** if you don't have a website (see References).

Other useful ways to get information out to people include:

- Using local internet blogs and chat pages (i.e., Sheffield Forum and Facebook™)
- Asking people to mail out via their personal e-mailing lists
- Asking friendly groups and organisations to mail out to their members and to put up posters and give out leaflets.

Record the project

Good quality photographic documentation is a vital part of **Abundance**. Being able to provide good photographs of all the elements of the project really helped with press and engaging people as well as enabling feedback to people taking part in different parts of the project for example its great for the harvesters and tree owners to see pictures of the fruit they picked being delivered and used by others. Often photographs seem to communicate the project idea better than words. In 2007 we also made a short video of the harvest, which has been really useful and has been shown at a number of events and talks. You may also want to document in different ways, i.e., through text, poetry, drawing. This all adds to the appeal and diversity of the project and celebrates its cultural aspects.

How to contact volunteers

Although email is the cheapest and quickest way to communicate with a group of people, it does lack the personal touch! We have learned that being really clear and specific when sending emails helps all parties be confident about what is expected of them. Information like where to meet (with postcode if possible), a mobile contact number, a description of how long you may be needed is the sort of information people find useful. For many people this may be their first harvest trip, and they may not be familiar with the city's geography. Building strong one-to-one communication is really valuable, because harvesting fruit is so much based around teamwork and cooperation. **Abundance** is fuelled by lots of good will and enthusiasm. People have a lot of this initially, but it can get lost through poor communication.

The contact sheet

Creating an information sheet containing volunteers' contact details is helpful. This includes:

1. Where they live in the city and where they are happy to travel
2. Their contact numbers - email and phone
3. Mode of transport - car/bike/public transport
4. How often they think they can come out harvesting and when – evenings, weekends, daytime
5. Whether they are interested in spontaneous harvesting outside of the regular harvest trips.
6. What parts of the project they want to be involved in, i.e., leaflets/scouting, harvesting, sorting, distribution, assisting with admin, juicing, preserving, **Abundance Week** events.

As our project grew, speaking to each volunteer personally before they came out harvesting becomes impossible. By the end of 2008 harvest year we had over 100 volunteers who have said that they were interested in “getting involved”. About 40 of these were volunteers from the previous year. The idea about harvesting fruit and redistributing it for free is very contagious, but often people don't really know what “getting involved” means. We created a standard email response which outlines in detail the different tasks and gives people a sense of the project and what part they can play. Next year we would consider asking someone to take on the role of volunteer co-ordinator to give the volunteers more attention. We recognise that people care is a vitally important. Because the project attracts so many different people from different backgrounds we find that having adaptable and sensitive communication skills is really important.

Keep in contact!

Volunteers are rewarded in fresh local fruit and delicious juice (see Pressing section). We also have a budget to pay for travel expenses. We try and maintain regular contact with the volunteers throughout the harvest time using mostly email and have an end-of-harvest gathering/party where people feed-in ideas, reflections and comments for next year's harvest as well as for other **Abundance** events throughout the year.

Funding

Financing an **Abundance** project means it can get off the ground and grow.

Covering costs & who can provide funding

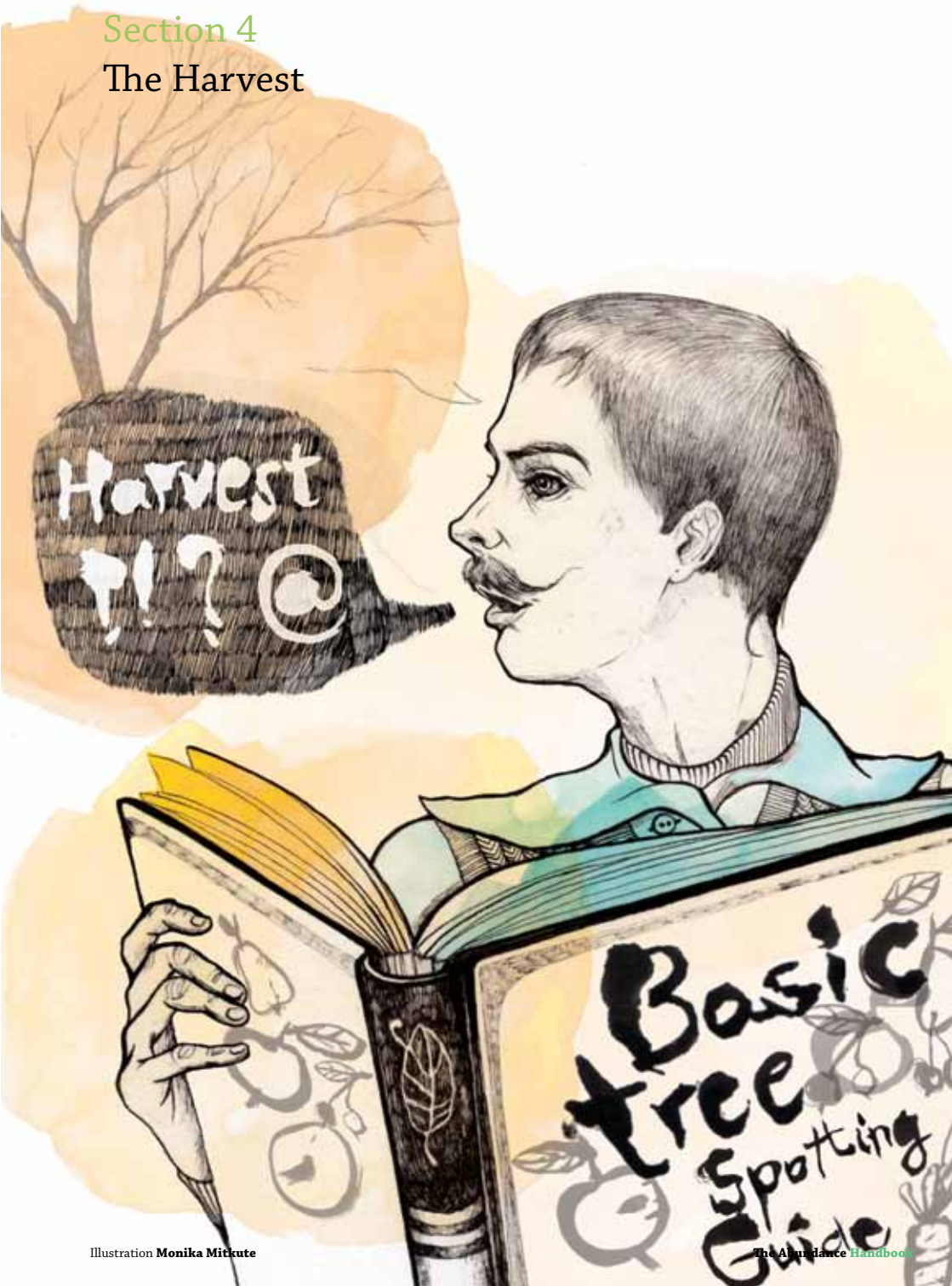
You may want to think about getting some funding for your project. If this is the case, it's worth doing way in advance of the actual harvest time. A number of funding bodies and trusts take a few months to make decisions on funding applications. It is also nice to get funding applications done in the winter months before the growing season begins or when it doesn't feel so bad being stuck indoors! Also, you may want to know by June/July or earlier what funding you have got so you can start to organise your project, get posters ready etc.

We seek funding for our core costs. These are harvesting equipment (see section on harvesting gear), volunteers' travel and transport expenses for both harvesting and distribution, books for identification, a fruit press (unless you can borrow one), special events and celebrations, i.e., **Abundance Week**, public liability insurance, printing, publicity and documentation, website, phone bills and if necessary renting storage space. We also fundraise to try and pay the **Abundance** team at least a token amount. The good news is **Abundance** fits many current government and social agendas, i.e., healthy eating, tackling obesity, community-building, training, cross-generational projects, education, local food, carbon footprint, climate change, food miles, waste/recycling, so you should be able to find trusts and organisations, either local or national who may be interested in funding you. We were funded by South Yorkshire Community Foundation and the Arts Council (Yorkshire) in our first year. In 2008 we got funding from the Co-operative Community Fund, The Naturesave Trust and the Open Gate Trust.

If you think laterally about your project you may be able to find funds from surprising sources. For example, we see our project as having a major arts and cultural value and therefore seek funding through arts organisations. The National Lottery Local Food fund may well be interested in supporting your project.

Section 4

The Harvest



Operation: Harvest

“An apple is ripe only for a moment.”

Sensing the right time

Knowing the right time to pick a fruit tree is vital if you want to get sweet ripe juicy fruit, as opposed to hard, sour fruit. The challenge comes in the fact that a fruit tree won't ripen all at once. However, this is also a blessing since it gives you some flexibility as to when to harvest. Generally speaking, the fruit in the sunniest spot will ripen first and that in the shadiest spot will ripen last. The right time then is when some of the first fruits have fallen to the ground showing that the tree has reached its harvest point, but before more than a third has fallen. Even if you turn up and half the fruit has fallen to the ground and is bruised, it's still better than picking the fruit before its ready. Fruit picked way before its ready will never get ripe. However you can pick fruit just before its ready, since the fruit will be able to carry on ripening off the tree.

Fruit will fall off in your hand when it is ready to be picked; you shouldn't need to twist or pull it off with any force. So if you are just harvesting the fruit for yourself you can just visit the tree each day, plucking off those fruits that are ready to fall. Alternatively you could put a blanket or duvet under the tree to catch the fruit and each day harvest the windfalls. Both these methods are not really practicable with a project that has over 250 fruit trees on the map to harvest! However these methods are the least intensive and least damaging to the tree, and will guarantee that all the fruit you pick will be top notch!

The main “signs” to look out for are:

- Fallen fruit
- Wildlife eating the fruit
- “Does it taste nice?”

nb: This is not applicable with such fruit as cooking apples, medlars or certain pears, which come off before they are suitable for eating and become fully ripe often months after picking.

Timing in the UK

Key fruits

Apples, pears and plums are the three main fruits we harvest for distribution, with apples being at least 70% of all that we harvest. The peak harvesting time will be during September and October.

Around the beginning of August is the time when the first abundance is harvested. In Sheffield, Beauty of Bath apples ripened at the end of July 2008. Mid-August there are gluts of plums, greengages and damsons needing to be used up really quickly. The warmth in August makes everything ripen and rot fast. By September and early October it's peak apple territory, and you'll no doubt be finding them everywhere you go. The juicer or press is handy for dealing with the gluts! We certainly did! And don't forget pears! By October we'd amassed enough fruit to give away lots, display it, preserve it and do plenty of juicing! At the beginning of November you may feel that most of the harvesting is over, but there will still be loads more out there. And loads of windfalls to make cider!

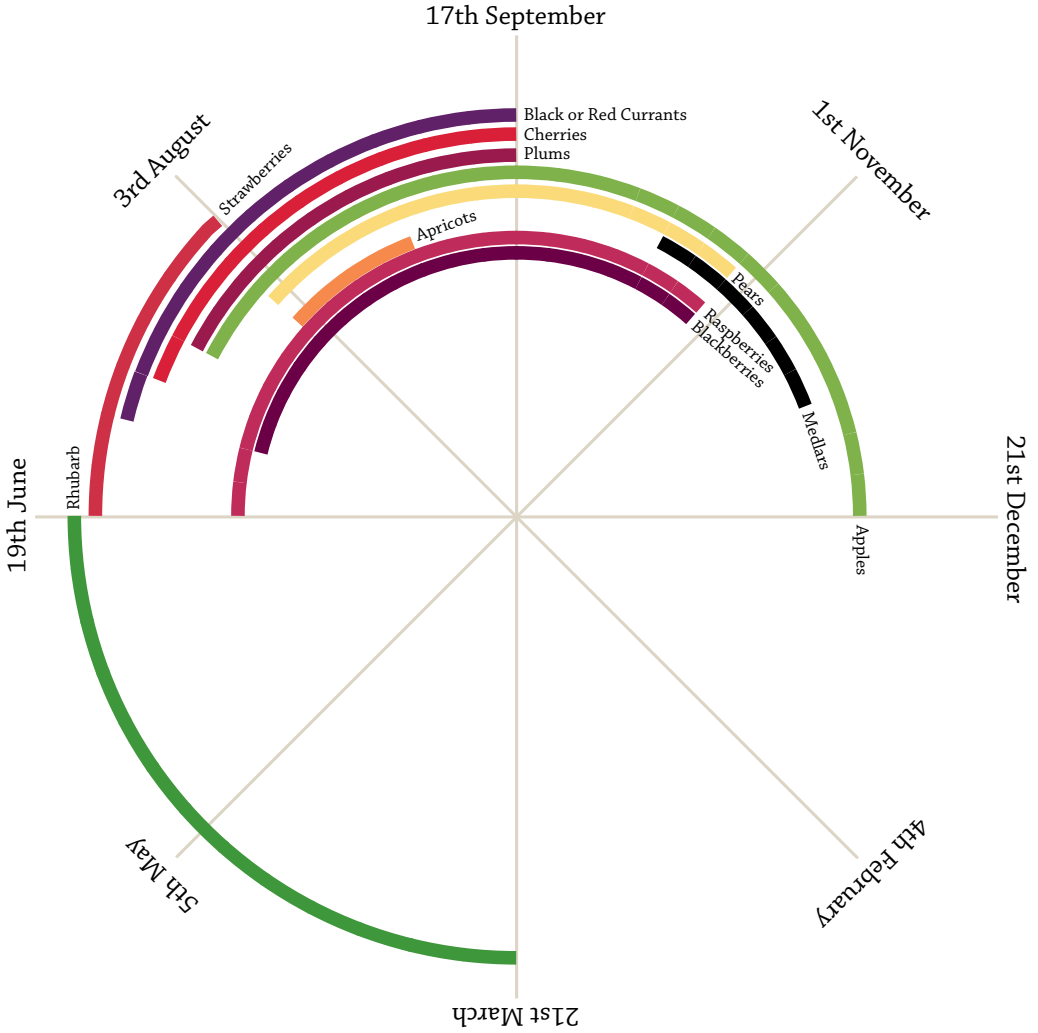
Unusual fruits

We found a lovely quince tree in a back yard behind a row of terraced shops. At first we thought they were pears – big yellow pear shaped things! We have harvested them for the last two years for distribution. Quinces are picked from September through to November, depending on the variety. Damsons are related to plums and tend to crop around the same time, but some crop very late and some very early. Bullaces are small hardy plums, but bigger than damsons. These tend to crop in September and October. We also found some apricots and peaches in September. In 2008 we found a medlar tree. Medlars are a very old fruit that crops in November and December, and needs bletting before they are ready to eat.

There are many more unusual fruits out there that can be grow in this country due to global networks and climate change. A good starting point to find out more about what unusual fruits there are, see the *Plants for a Future* website (in References).

Fruit harvesting calendar

For temperate climates in the UK



Calendar guide

This calendar is a guide to the cropping times of fruit commonly grown in the UK. Abundance Sheffield so far has only distributed fruit from trees. On this calendar are other common fruits and also more unusual fruits that can also be grown in the UK so as to show the possibilities of extending the abundance season.

The suggested harvesting times are only a guide. You may find things cropping much earlier if you are further south and much later if you are further north. The microclimates that are created in a particular area will give different cropping times of the same fruit; north-facing exposed sites later, south-facing sheltered site earlier. We've included info on soft fruit and other fruits to add some context for the season.

There are **tonnes** of apples in this country! Despite the fact that apples came from the Russian hills, they seem to **love** it here... This island is apple central! Therefore we really value the more unusual fruit when it's available, because it's nice to have lots of variety to show the possibilities of local urban fruit and it's nice to get a varied fruit diet for personal consumption! We are only just beginning to uncover the diversity of local fruits and varieties grown and harvested by our forebears.



< [Here they come!](#)

Fruit harvesting

Some tips for common fruits.

Strawberries

Strawberries are usually the first found fruit of the year around about midsummer. These will keep cropping for about six weeks, but you can keep finding ones after this. Down south you may get a very late crop in November.

Currants

There are white, red and black currants. They crop at subtly different times but usually from about mid-July. You can pick them earlier, but they will be sweeter if you leave them on for longer. If you manage to keep the birds off them, they will stay on the plant for a long time, even running into November.

Berries

Gooseberries are usually pickable from about mid-July. If you want them to be sweet instead of sour, leave them until they go soft. Worcester berries are a hybrid that look like gooseberries but smaller fruit, slightly bigger plant and with bigger thorns. They crop around the same time.

Jostaberries are another hybrid, this time without thorns. They are larger plants growing up to 7 ft tall, and the berries are half-way between the size of blackcurrants and gooseberries.

Cherries

Cherries are the first of the tree fruits to crop, around the second week in July. The wide variety of different cherries means that you can keep picking them for many months. Mazzards are worth looking out for – little black cherries that crop in late August and September.

Raspberries

These crop from about beginning of July all the way through to November when the early ones ripen late fruits. If you have a wide variety of raspberries, you will get continuous cropping for about 5 months.

Blackberries

Similar to raspberries but ripening about two weeks later, around the beginning of August. There have been instances of a ripe blackberry from the plant on midwinter, but they usually stop in October.

Plums

Greengages are usually the first of the plum type fruits to crop, around mid-July. However, damsons can be cropped at this time as well. Most plums crop between August and September, but there are a few varieties that will crop in October.

Apples

These are by far the most prolific fruit in the UK. If you're only going to look for one fruit, let apples be it. The early apples will crop at the end of July, and there are varieties that crop through to February!

Pears

Similar cropping time to apples but often much harder to pick, hanging off 50-ft tall trees and ripening much faster.

Rhubarb

Rhubarb is a stem crop, not a fruit crop, but it is very productive and can be foraged for on abandoned allotments. It's best picked between spring equinox and midsummer. After midsummer there are better things to pick, and it's good to leave the plant to recover from the spring pickings.



Harvesting

Practical tips based upon our experience.

What time of day to harvest

In 2007 we decided to have fixed days for harvesting, so as to save time on organising harvesting trips, and also to have an additional 'spontaneous' harvest team – people who were happy to be or preferred being contacted last minute.

In 2008 we decided to harvest mostly between the hours of 9 - 3 on weekdays and at weekends, to avoid the after-work rush hour. This limited the number of people who could get involved, but as we had lots of volunteers it wasn't hard to find people who could come out during the week. We ran weekly chutney workshops for those who are only free in the evenings. Weekend harvests often became a family event with people of all ages getting involved.

Bearing in mind many people's commitments and working hours, weekend harvests work well. Early evening harvests can work well until October when the light fails, but we try whenever possible to avoid travelling in rush-hour traffic or only to travel short distances at these times.

Harvest trips can take several hours. We find it works best if volunteers can commit to at least three hours at a time to make it worthwhile for everyone involved. Generally two to five urban harvesters per trip are required.

Hard at work! >



Co-ordinating the harvest

It is really helpful if someone takes the role of harvest co-ordinator unless there are only a couple of you and it's a small tree in which case its not necessary. One idea is to take turns doing this so you can all gain confidence in organising and leading a harvest. That person can then be responsible for organising scouting (if there is time) getting together the harvesting equipment, where you are going, transport and co-ordinating how to harvest the trees and sort of the fruit.

We decided after 2007 that it would be more efficient to break off into more localised harvesting cells across the city. By 2008 we had formed two Abundance teams, each with their own store, list of trees and teams of harvesters. In 2009 we are hoping to run harvester training at the beginning of the season so that people feel more confident to take groups out themselves. We noticed that even though people were experienced harvesters, they were sometimes lacking confidence to take out a group and co-ordinate a mission. It would be great, in a city the size of Sheffield if we could have many more active harvesting teams across the city working much more locally. With over 100 people keen to get involved in different parts of the city, this gives us a potential 10 harvesting teams. This would reduce transport, enable us to get more people involved, enable exchange to happen between groups in the city, and we could harvest more fruit.



< What a waste!

Harvesting gear

What you need to harvest a tree.

Essentials

These first 5 items are the essentials:

- Large plastic crates or large wooden crates for big harvests. Fruit and veg shops have very useful plastic crates that stack on top of one another and can also slide into one another. The wooden crates will break after a while, so are less durable.
- A tarpaulin is essential if you are shaking the tree (at least 5m x 5m) and some string tied to the corners.
- A car or trikes/bikes with trailers to transport the fruit.
- A list of the locations of the trees to be harvested on the trip and an A to Z map.
- A mobile phone.

Useful

These 5 items are really useful but not essential:

- Picking bags made of cloth or some strong durable material, preferably with a strap that can be worn across the body. These are much better than plastic bags, which rip and tear easily. In 2008 we bought 20 used commercial fruit picking bags which have been very useful.
- Picking sticks. These are long poles with a bag on the end and metal teeth to grasp and twist the fruit. You can buy these from horticultural specialists and some hardware stores. We made some improvised pickers with bamboo and tent pegs, and birch poles and twisted coat hangers.
- A pruning saw is very useful to do some on-the-spot pruning and can be used to create access into the tree if the tree is overgrown with lots of crossing branches. The double-edged saws are much sharper and easier to use. (See pruning section for details on where to make the cuts)
- Hard hats or helmets! If you are harvesting a huge tree – people may want them for their own safety! Another option if you don't have hard hats is to ask people to hold the tarp above their heads.
- Leaflets to give out about the project so people know who you are and in case you spot more fruit trees.

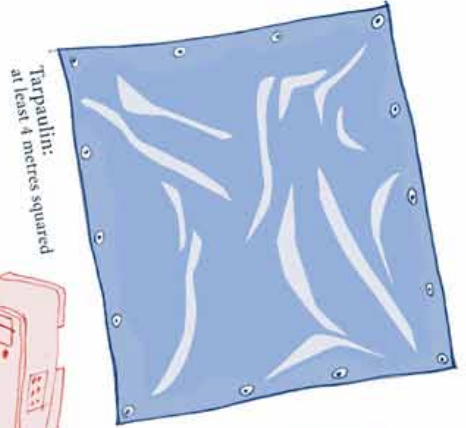
If you can

You may also want to bring along these 5 items:

- A camera to document the tree and the harvesting.
- Tea and drinks (or ask people to bring their own).
- Identification book.
- Labels for the fruit crates.
- First aid kit (plant-based or conventional).



Boxes from local veg shop



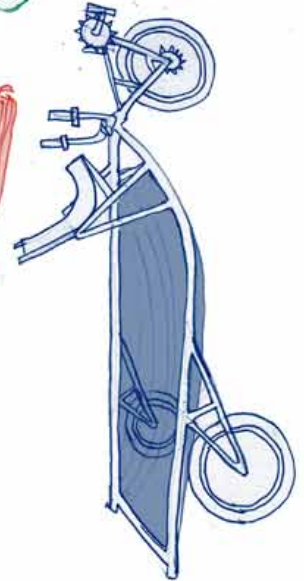
Tarpaulin: at least 4 metres squared



Camera: For fun and publicity



Harvesting Bag: hands free when climbing and picking



Shakers & catchers

So, we've got to a tree that needs harvesting – the fruit hangs from the branches waiting to be picked – the birds have pecked a few and a number of fruits are on the ground by our feet...

Our harvesting method

We know its ready to be harvested, - we've tasted one and it was sweet and juicy – and now we've got our hearts, eyes and minds and especially stomachs focused on harvesting as many fruits as the tree is willing to give. We've remembered the tarp, the boxes, and a group of enthusiastic hungry harvesters, and we've also brought the picking bags which over the past few weeks have become a bit like kangaroo pouches – an extension of one's own body. HOORAY! We look up at the tree, pondering the most efficient way of harvesting the fruit. We don't want to damage the fruit, and yet we don't want to be there all day handpicking. So, what's the next step?

We tend to use the method outlined below but there are always exceptions. Our method also depends on having willing tree climbers. This may not always be the case (see useful tips):

First, we see if there are any windfalls that are worth rescuing. Even if they are damaged they can still be used for juicing.

Second, we hand pick any fruits that are in easy reach. If they are undamaged by birds or insects and not split due to over-swelling, we put them straight into a "firsts" box. This is the box that we distribute.

Third, we get someone to climb the tree, preferably the most able climber. There may be much debate about this since climbing is so much FUN... so take it in turns! The rest of the group holds the big tarp under the most laden branches (preferably one person to each corner of the tarp).

Fourth, on the shout of "ready" we get the shaker to shake the fruit into the tarp. The shaker should not have to shake that hard. If the fruit isn't falling off easily, it's probably not ready. The shaker needs to be sure of his own safety in the tree and needs to be realistic on where he can and can't get to. He communicates to those on the ground when he is going to shake and which branches he is going to shake and when he is stopping. The catchers also shout "stop" when the tarp is getting full. Note: if you're a tarp holder standing under branches with fruit on, it is worthwhile holding the tarp above your head to protect yourself from falling fruit !

Fifth, the fruit caught in the tarp is rolled straight out of the tarp into a box, and the harvesting continues with shaking until most of

the fruit that wants to come is shaken down. It's best if the fruit is rolled out of the tarp frequently to reduce damage from fruit falling on top of fruit. It is a good idea for the shaker to have a picking bag with him up the tree because the fruit in the middle of the tree, especially those at the top, will damage if shaken down but are usually easy to hand pick once in the tree.

Sixth, the fruit is sorted, either on site or back at the store. If we are sorting on site, then that is the next job to do (see Get it Sorted! below).

Seventh, we offer the owner first share of the fruit. Usually we offer the owner as much as they like of the handpicked "first" fruit we harvested first. We make sure we have the owner's contact details, thank the owner and then load the rest of the fruit into the car, trike or trailer.

Lastly, We thank the tree for its fruit and make sure we have left some fruit for the wildlife and some to rot down into the soil for next year.

Other things

If you don't have anybody who wants to or is able to climb the tree or this method is not appropriate for your group, you could use hand picking with steps or ladders or using picking sticks or devices. If you use ladders always have someone working with you supporting the ladder. This is more labour-intensive and time consuming. The pay off is that you get less-damaged fruit, so it keeps for longer. Using picking sticks and various improvised or homemade devices can also be lots of fun, as is finding a way to get the fruit down, i.e., having a mobile chute or drainpipe.

We have found it helpful to tie string to the corners of the tarp. This means you can tie corners of the tarp on to a fence or a branch and save the need to have someone holding a corner. We have successfully shaken down apples with only one person holding a corner of the tarp – the other three corners tied up to immovable things. When you shake the tree, the fact that a lot of the fruit may bruise on hitting branches or each other needs to be considered. We use this bruised fruit for pressing or immediate eating. If you don't have a juicer or press, it's a shame to waste fruit by damaging it. We really recommend getting a juicer, even if it is an electric one, and not a full manual apple press. It makes it much easier to use the "seconds".

Sorting & transport

How to handle your fruit after it's been picked.

Other things (cont.)

We generally find that about 60 per cent of the fruit we harvest gets distributed and the other 40 per cent gets juiced and given to volunteers. Overall, the accessibility and scale of the tree, the time you have available and the number of trees you have to harvest will determine whether shaking the tree or picking or a combination of the two is most appropriate. Also, it depends on what you will do with the fruit and on the ability of your group. The role of the harvest co-ordinator is to use their experience and knowledge to make these decisions.

It's a good idea to ensure that people wear suitable footwear when harvesting and to only let experienced and confident climbers in the tree. It's not worth taking any unnecessary risks with rotten tree limbs or bad access – there is plenty of other fruit out there! We have public liability insurance that covers people working up to a height of 5 metres.

Sorting

We find that it is more efficient if the fruit is sorted at the site into three categories: “**Firsts**”, “**Seconds**” and “**Juicers**”/Immediate Users. “Firsts” are the best totally undamaged fruit. This is the fruit that you want to store or distribute. “Seconds” are like firsts but perhaps small, insect-damaged, surface-damaged or scabby. “Juicers”/Immediate Users includes any fruit that is broken through the skin or split, bird-eaten or heavily bruised from windfall, as well as fruit that is extremely ripe and won't keep. Fruit in this category has to be used as soon as possible. The sorted boxes are preferably labelled with the name of the area, the tree, the variety, if known, and the date.

Transport

A vehicle is usually essential when harvesting big trees as a high yielding apple tree can produce ten or more wooden crates full. This may need an estate car or bigger. There is also lots of scope for pedal-powered transport, and there are some very good guides to making your own bike trailer simply and cheaply.

Trikes 4 Transport worked with us in 2008 transporting apples and pears from medium sized harvests and distributing fruit. They use recumbent bikes with trailers specially designed for transporting heavy goods.

Fruit recycling in the rain! >



Loading up! ^

Our front room >



Section 5

After the Harvest



The store

Finding the right place to store your fruit.

Things to think about with storage

Room Size

Bearing in mind roughly how much fruit you intend to harvest, look for a room that will be able to fit in all the fruit easily, while leaving space for access to the fruit for sorting.

Temperature

A room that is cool, shady, and dry is ideal. Try to avoid rooms that are heated. If the room has windows that let the sun in, close the curtains and open the windows to keep it as cool as possible. Cellars are often the ideal temperature but have poor access due to stairs.

Accessibility

Choose a room that is reasonably close to where you can drive a vehicle to for dropping off fruit. Also try to avoid going up and down stairs. Good vehicle access will save loads of energy. If there is no easy way to get a close drop-off point to the store, a trolley or wheelbarrow, or some way of moving the fruit into and out of the store will save your back. We used a large trolley from B&Q to shift heavy loads of over 250kg.

Pests

Rats and mice seem to be the only problem when trying to store fruit in garden sheds or allotment sheds. Find a space that is reasonably sealed from invading hoarders!

Location

Try to find a space that you can get into as often as you like and which doesn't involve travelling far. A local church hall or community centre may have a spare room that you can use. You can always use a room in your house, if you've got space. We would need at least 3 full-size living rooms for the fruit we harvest! One of the spaces we used in 2008 was a room in an old primary school. This was a big space with loads of tables, so the fruit was lifted off the ground and the building was unheated. We also had 24-hour access.

We had two stores in different parts of the city in 2008, one for each harvesting group (north & south Sheffield). This helped reduce our transport and food miles.

Storing the fruit of your labours

Apples are one of the easiest fruit to store. Flat-pack wooden boxes or plastic crates are ideal. We get these from outside fruit and veg shops. We place the apples in single or double layers of fruit in boxes

Things to watch out for

When checking fruit, look out for any bruises, signs of insects or mould. The reason the fruits are generally kept separated is so that any bruising or rot does not spread between. Over-ripe apples, and other fruits, produce chemicals that cause other apples very near them to ripen very fast, becoming rotten just like the first one hence the proverb “a rotten apple spoils the barrel”. We remove any rotten apples immediately into the juicing area or, if they are too far gone, into the compost. Generally, during peak season we check and sort the fruit once or twice a week.

As a general rule, early apples tend to keep for less time than those harvested later in the season. Many of the later-cropping apples harvested after mid-October will often last right through the winter, until April or beyond. In Yorkshire there was an old tradition of eating an apple pie baked with the apples of last year’s fruit and one with the first apples of the new harvest, on the same day, usually around the beginning of August. We can have apples all year round in this country! If you can get apples to last you until the beginning of May, you are doing really well.



Barry's apple pie from '04 harvest with apple pie from '05 harvest. >

with paths between so they can be easily inspected. You can also use the fruit dividers you get in fruit boxes to stop the fruit from touching. We don't wrap the fruits up, as we would have to unwrap each fruit to check it.

Pears are harder to store and need closer attention as to when they ripen. Some pears will ripen at once, so it's worth checking the fruit at least once a week. For plums and stone fruit, we check twice a week minimum as they are unlikely to store for long. If really pushed we put them in the fridge.

Plums, greengages and damsons are generally best eaten as soon as possible – this is never generally a problem as they are so delicious! The ones that you harvest that are still firm will keep for between one week and two weeks, in a cool shady place.

General Rule - If picking fruit for storing, the firmer fruit will store for much longer in all cases.

“Fast Ripe, Fast Rotten.”

Japanese Proverb

Bletting & ripening

‘Bletting’ is the term that is used to refer to fruit when it has started to decay – basically rot! There are some fruits that are considered at their best after some bletting. One example is medlars, which go brown and look rotten before they are good for eating and taste sour and astringent before this process has occurred. Leaving apples to ripen longer brings out the sweetness in them and can help people to digest them more easily. Cooking will also make them more digestible. If you want to sweeten an apple leave it on the windowsill for a couple of days. If you leave windfalls outside and let the frost get to them, this will help bring out the sweetness in tart apples and make them edible raw.

Pressing the fruit

How to get more out your harvest.

What you need to press fruit

We press about 40 per cent of the apples and pears that we harvest. We are lucky enough to be able to borrow a manual apple press and apple crusher for our weekly juicing sessions. The size of the press and crusher we use costs about £700. We often had up to eight people juicing at once, although we also managed to make a fair amount of juice with just two people. We produce an average of 5 gallons per session. We are also lucky to be juicing at a site with a compost heap nearby, as there's loads of pulp and skin, which can be composted. For **pressing** you need:

- Lots of clean containers, i.e., large plastic bottles and/or demijohns
- Some knives and cutting boards
- A jug
- Access to running water and preferably a hose
- A brush for cleaning
- Big container or bucket for pulp/compost
- A funnel for channeling the juice into containers
- A barrow for carting the waste.

Because the juice is fresh and unpasturised, we have to drink it within three days, otherwise it starts fermenting. Other urban harvesting groups, for example *Organic Lea's Scrumping Project*, pasturise their juice which gives it a much longer shelf life and is fantastic if you want to keep your juice, exchange it or sell it.

Preserving & processing

Jams, pickles, chutneys and cider.

Cooking together

In 2007 and 2008 we ran jam and chutney making sessions and had a go at making cider. The chutney making sessions were weekly during the main part of the season at a volunteer's house. This was a chance to try out lots of different recipes using as much local produce as possible including a great 'no-cook chutney' which saved on energy too! The chutney and jam sessions gave another way for people to get involved with the project, for example people with less mobility or people who were only free in the evenings. One of you may want to consider getting a food hygiene certificate if you are considering selling your preserves.

[Group Squeeze! >](#)



Distributing the fruit

Time and transport.

From hand to mouth

We distributed the fruit to a variety of places across the city once a week or fortnight depending on the need and the amount of fruit we have harvested. The number of distribution venues increased from eight in 2007 to around twenty in 2008. These include community projects and cafes, Surestarts, nurseries, homeless hostels, rehabilitation centres, HIV/Aids projects and church groups. We have also supplied fruit to Sheffield Wildlife Trust for a variety of talks, special schools and to organisers of Local Apple Day celebrations for juicing. Primary and Junior Schools have not been interested so far mainly for reasons around their food hygiene regulations. However one school that has bowls of fruit dotted around their buildings for pupils to help themselves has now placed an advanced order from next years **Abundance!**

We try to be very careful about how many miles the fruit travels, and where possible the fruit is distributed from the nearest store. For one area, we are fortunate to be supported by a wonderful partner – *Trykes4transport* – the bags or boxes of fruit being pedalled around the city behind a tricycle in an eye-catching trailer. These attract a great deal of attention on the roads and a development for future years is to have brightly painted boards showing the **Abundance** name and contact details. We are also looking into other kinds of bike trailers so that we can use more un-mechanised transport next year.

Information is provided with the fruit about how to store it, recipe ideas, what the fruit is and where it has come from in the city. A questionnaire is given to groups at the end of the season to get feedback and to learn how to improve the service. We also ask the groups if they could take photos of kids or adults using the fruit. This is great for the volunteers and the tree-owners to see.

Encounter Abundance

Free fruit? Yes please!

Free fruit exchange

In 2008 we collaborated with Encounters, a participatory community arts project in Sharrow and opened a creative fruit exchange shop at Encounters on Wostenholm Road for six weeks called **Encounter Abundance**. People were invited to come in and get free fruit in exchange for a story or drawing about fruit or an important feast. Several hundred people visited the shop. Visitors really enjoyed the exchange idea and also swapped chutneys, seeds, herbs and recipes for their own, or offered their own fruit and veg – even paintings of fruit! - in return. People also pinned information to a food map of Sheffield, contributing to the creation of the new online **Sheffield Food Network**. They also found new people to team up with to get or offer help to grow their own food through a Land Fix noticeboard. We ran storywriting, fruit jewellery making, seed saving and harvest workshops, talks and apple juicing from the shop. It was hard work and involved lots of volunteer hours but generated lots of interest from a wide cross-section of the local community, from novices to expert growers, spanning all age groups.





^ The Fruit Exchange, Encounters Shop



< The Abundance Cart in town

Abundance Week

Abundance Week is the name we give for running public events to share with local people the joy of the harvest and local fruit. This is our chance to communicate in a creative and celebratory way the many reasons why local fruit is a good idea.

Abundance cart

In 2007 we ran an **Abundance Week** where we commissioned local woodcraftsmen to make a mobile “Abundance Cart”. The cart displayed a colourful range of varieties that had been harvested. This was at peak harvest time in the first week of October, which meant that we had a massive range of varieties and different fruits. We took the cart to the city centre, Meadowhall Shopping Centre and the Showroom Cinema, and we talked with people passing by about fruit, local food and the project and offered them free fruit and fresh juice. In exchange, we invited them to answer questions about fruit. It was helpful to have some kind of exchange happening because some people feel quite unsettled by getting something for free. The Abundance Queen, a performer, the spirit of the fruit trees, wowed the crowds and gave away fruit. Abundance Week got the local fruit message across to many hundreds of people of all ages.

Abun-Dance

The **Abun-Dance** was developed from a tune written by one of our volunteers. The tune is very simple and can be endlessly varied and we created a dance drawing from motifs and movements associated with the harvest. We danced the Abun-Dance for the first time in 2008 with about 20 people in a community garden. We reckon that with enough cider flowing the Abun-Dance could well go on all night!



< The Abun-Dance in full swing!

Section 6

Mapping & Recording



Tree charts

After each harvest we write down as much information as we can to provide information for next year's harvest.

Mapping the trees

A tree chart should include:

1. The tree's location
2. The cropping time
3. Yield - the quantity of fruit produced (nb: often trees put on a heavy crop every other year)
4. The owner's contact details
5. Accessibility of the fruit (ease of harvesting)
6. Whether the tree needs pruning

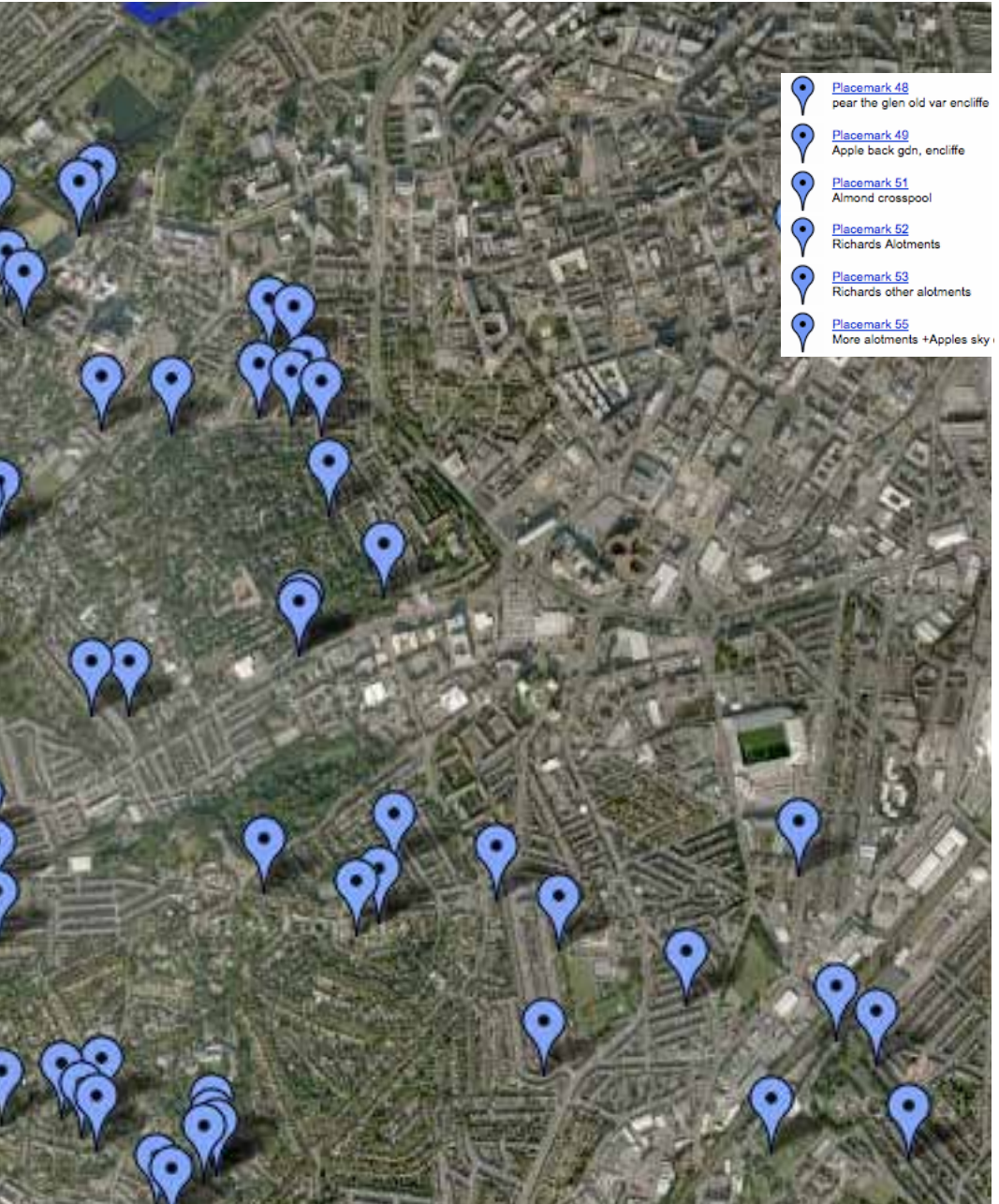
In combination with the **tree chart**, it is very helpful if you have a **Google Map™** of the trees. Try to pinpoint the tree as accurately as possible, and add as much info as you can. The more specific the information is, the easier it will be for next year's harvest. You could also add to this list the quality of the fruit, and the variety of fruit if you can identify it. We've found that it is better to have two Google maps – one for private trees and one for public trees. We make the map of private trees accessible only to volunteers. The public trees map is open access so everyone can benefit from your free food map! We have also been experimenting with shared internet documents for storing and pooling information about trees. It's good to have both the tree chart with written information as well as the map, as some people don't like using or aren't familiar with working Google maps or may not use computers. The **Abundance Sheffield** map is now 3 years old with about 300 place marks on it. We are in the process of breaking the various maps down into four key maps – **August, September, October** and **November** – as these are the main picking times for fruit. The **tree chart** and **map** are an aid in deciding which trees to harvest with which volunteers the following year and which trees to prune in the winter. Ideally, there should be enough information for a new organiser to pick it up and run the project the following year.

Creating the chart and/or map also gives a really interesting alternative perspective on the city as an orchard and indicates where there may be gaps in fruit trees. These may be places you may want to encourage people to plant fruit trees or plant them yourselves at other times of the year. It is interesting and good fun to get a fruit ID book and to try and decide which variety a tree is. Identifying apples accurately is quite challenging as there are over 5000 varieties growing in the UK, and some will be new hybrids. But it's also good fun, some of the names are great, and it will increase people's awareness, observation and knowledge of the trees.

Example tree map

How Google Maps becomes an instantly updateable map.





Section 7

Pruning



Why prune?

We encourage pruning that works with the natural shape of the trees, allowing them to grow to their full size. We do pruning to encourage the health and long life of the trees.

Pruning basics

There are 3 main basic aspects to pruning a tree.

Firstly, removing any dead, diseased (where cankerous growth or rot has got in) or crossing branches (i.e., where branches are rubbing on one another) back to healthy growth.

Secondly, thinning over-crowding branches where growth is dense and shady to get more sunlight in. This can often occur in the middle of the tree.

Thirdly, reducing the length of long spindly growth, which would have no strength to support the weight of fruit. Plums that have been left unpruned are well known to put on so much weight of crop on the long branches that the branches break off and leave the tree with a wound that can lead to disease getting in.

In general all cuts should be kept clean and to a minimum.

Prune stone-fruit trees (plums, damsons, apricots, peaches, cherries) in the summer, from April onwards, when the sap is rising. Pears, quinces, apples and nut trees can be pruned any time of the year but are usually pruned in the winter and spring. Trees vary greatly as to whether they will need regular pruning or can survive happily on their own self-pruning. Bear in mind that a tree that hasn't been pruned for a while will have an additional growth spurt so it is wise to go back to it the following year.

This is only the basics. The best way to learn pruning is to do a practical course. There are many of these across the country.

Most of the trees we find need serious pruning, a job that would take a whole day in the case of certain trees.

In winter we run a series of day-long pruning workshops, and following on from this we are re-visiting some of the trees we harvested the previous year to undertake vital pruning with volunteers. Where pruning takes place in private gardens, this may provide an opportunity for donations to the **Abundance** project and affirms relationships with the trees and tree owners for participation in the project. Pruning often dramatically increases the quality and quantity of the fruit, so there is a real incentive to do it.



Section 8

Planting

Planting from scratch

There are many ways to grow fruit trees. You can grow them from seed, you can buy grafted plants from a nursery or you can learn to graft them yourself.

Some tips

Growing from seed requires a lot more patience than buying grafted trees, and the results are unpredictable in vigour of tree and size of fruit. Grafted plants which you buy in are grafted on rootstocks which determine the size of the tree. Choose a tree that will fit into the space you have. Most of the trees you buy will be bare rooted trees. It is important that the roots don't dry out. If you can't plant out immediately, then bury them temporarily in a little soil and keep moist. You can plant fruit trees at any time when the sap is not rising, usually November through till April. A well-prepared soil with compost is essential for most fruit trees. Well-rotted leaf mould and manure can be dug in, mixing with the top soil, and concentrates like hoof and horn, feathers or hair, will give a long-term slow release of nutrients, encouraging strong growth in the first few years of its life.

Sunny positions are best for planting most fruit. Determining where south is, is vital in understanding where the majority of the light will be coming from, and hence the direction the tree will tend to grow. Also the direction of the prevailing wind could affect how the tree grows. Observe the site well before planting... don't rush it... your tree could be around longer than you are! The depth of the hole is determined by the tap root on your tree, which will probably be a "bare root maiden" – a tree which is not in a pot and is a year or more old from grafting. The width of the hole is determined by the horizontal root expansion. Dig a hole a little larger than the root space, and fork down into the subsoil to check that the roots are able to travel and that there is good drainage. Find the graft point on the tree and make sure that this is above ground.

The main aim is to recreate the root structure and shape as accurately as possible as it was when growing in the ground. Start by positioning the tap root as central as possible in relation to the side roots, and then tease out the roots from the tap root up, restructuring them, decoding the pattern that they were growing in. Start to fill in soil into the gaps, working from the tap root up, structuring the horizontal roots to their full extension. When you have positioned the roots and filled in the space between all the roots with soil, fill in a little more soil up to beneath the graft point and firm in with your heels creating a moat around the edge of the planting hole. Water the plant in. The water should go to where the root can reach it. Check that the water drains properly. If the surrounding soil is has high clay content you might need to dig a drainage channel. This is a very rough outline – there is a lot of information out there on tree planting and rootstocks.

Section 9 Pollution

Is it safe to eat urban fruit?

Simple answer, yes.

Pollution & urban fruit

This is a question that has been asked a number of times: “How do we know the fruit in the city is not polluted or contaminated either through the soil or airborne pollution?” We asked the opinion of Dr. Johnathan Leake who is a Sheffield allotment holder and Soil Scientist at Department of Animal & Plant Sciences, University of Sheffield:

“Urban areas, particularly those with an industrial past, often contain significantly increased background concentrations of a wide range of pollutants in the soil and air. Much of the historical pollution is locked up in the soil and not taken up by plants, and there is evidence that fruit is normally one of the least contaminated parts of a plant. The risks from pollution tainting crops is generally very low, but we would advise not harvesting from areas right alongside busy roads, and to always wash fruit to remove any air pollution particles.”

Dr. Johnathan Leake

Our instinctive response is that the fruit we are eating tastes far better than anything we can buy in the shops and that we know that none of the trees we harvest had been intentionally chemically treated, like most non-organic and even some organic bought fruits. Its also a good time to reflect on the fact that when we buy fruit we have no idea where it was grown. Johnathan’s point about fruit being one of the least contaminated parts of the plant is also important. Other crops such as brassicas (cabbage family) are far more likely to take up pollutants from the soil into the edible parts of the plant. With air pollution the fruiting part of the plant is usually only exposed for a few months.

Section 10

Abundance Possibilities



We've only just started!

There are lots of exciting ways that **Abundance** can develop. We are aware that we are harvesting only a small percentage of trees in the city. Probably about 1 per cent. Below are just some of the ways our project could develop.

- We hope to create a list of contacts for groups and centres who can handle lots of fruit of different quality and type on an ongoing basis. We can then give this information directly to people who have trees bearing lots of fruit and they can take the fruit there themselves. This will be particularly useful for people with lots of trees who live a long way from the centre of the city.
- We will be introducing grafting as part of the training for volunteers and hope to develop our own nursery for growing and preserving local and heritage varieties of fruit trees as part of the project
- We are considering an **Abundance café**. This could be a temporary project during harvest season or linked to an existing café. It would promote the project as well as use some of the harvest produce to raise funds for the project.
- We would like to appoint tree guardians, volunteers that will take on looking after a certain tree year on year for harvesting and pruning.
- We are encouraging the local council to plant new fruit trees, especially nut varieties on public land, encouraging people to grow fruit and nut trees in their gardens and doing guerrilla fruit and nut planting. We have got funding from the *Tree Council* to plant 20 fruit trees with local school children in our local park. We are encouraging and working with the City Council to create a *Sheffield Agroforestry* network, bringing the principles of permaculture design into the design of the city's urban forest. This involves viewing and creating the whole city as a living forest of edible and medicinal plants – encouraging orchard planting on safe landfill sites, and giving advice and education in the planting and maintenance of fruit and nut trees.
- We hope to continue to organise more jam-making and preserving workshops and cross-cultural cooking workshops with different user groups of all ages in future years.
- We would like to develop the educational aspects of the **Abundance** fruit harvest with schools and nursery children and their carers and the other people who receive the fruit.
- We are interested in extending the Abundance project to other natural resources, such as other glut fruit and veg, leaf collecting, natural springs and wild food foraging.
- As we said at the beginning of the Handbook, the ideal development for us is that at harvest time people go out to harvest the fruit for and with their friends, family and neighbours and pass the Abundance on to local community groups and institutions at street level. By valuing and celebrating the Abundance we hope that people will learn to care for and plant fruit trees across the city in public and private land and Sheffield's orchard will continue to grow and flourish!
- There are lots of abandoned commercial orchards. In 2008 a group of harvesters went to Lincolnshire to harvest an abandoned orchard of several thousand trees. We hope that groups nearer to the sites may be able to include these sites in their **Abundance** projects!

Come let us watch the sun go down
and walk in twilight through the orchard's green.

Does it not seem as if we had for long
collected, saved and harbored within us
old memories? To find releases and seek
new hopes, remembering half-forgotten joys,
mingled with darkness coming from within,
as we randomly voice our thoughts aloud
wandering beneath these harvest-laden trees
reminiscent of Durer woodcuts, branches
which, bent under the fully ripened fruit,
wait patiently, trying to outlast, to
serve another season's hundred days of toil,
straining, uncomplaining, by not breaking
but succeeding, even though the burden
should at times seem almost past endurance.
Not to falter! Not to be found wanting!

Thus must it be, when willingly you strive
throughout a long and uncomplaining life,
committed to one goal: to give yourself!
And silently to grow and to bear fruit.

Rainer Maria Rilke



References

For more information on the topics covered in this handbook.

Useful websites

For information on continuous perennial cropping see:

Agroforestry Research Trust

<http://www.agroforestry.co.uk>

Plants for a Future database

<http://www.pfaf.org>

Common Ground nationwide celebrations of seasonality & locality

<http://www.commonground.org.uk>

A great book by Common Ground on apples

<http://www.england-in-particular.info/orchards/o-asb.html>

Fruit presses, crushers and information

<http://www.vigo.co.uk>

Information on how to make a Bike Trailer

<http://leeds-alternative-energy.wikispaces.com/Trailers>

Information on Permaculture

<http://www.permaculture.org.uk>

Organic Lea – great scrumping project in London

<http://www.organiclea.org.uk/index.htm>

Grow Sheffield

<http://www.growsheffield.com>

Abundance Sheffield

<http://www.growsheffield.com/pages/groShefAbund.html>

Abundance Manchester

<http://abundancemanchester.wordpress.com>

Trikes for Transport

<http://trikes4transport.co.uk>

Abundance tune written by Jerry Simon

Please contact if you want an mp3.

...and lastly,

Writers

The Abundance Handbook was written by Anne-Marie Culhane & Stephen Watts, with contributions from Vanessa Senger, Dr. Jonathan Leake & Ruth Nutter.

With thanks to Barry Potter for his apple pie picture. Thank you!

If you would like more information about **Abundance** please contact Abundance@growsheffield.com

If you would like a copy of the short **Abundance** film please contact Anne-Marie on mail@amculhane.co.uk

Thank you!

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Special thanks to Anne-Marie, Wayne, Jay, Jo, Monika and Stephen for their tireless work on pulling this Handbook together!



< Hugh's in town!



Welcome to **Abundance**, a project to harvest surplus or wasted fruit and re-distribute it in your community. This handbook is based on our experience of running an urban harvesting project for the first time, and as such you may find some parts more or less relevant for your town, city, street, village, background or experience. Also it is very much about the way we decided to do things in year one, and the project is still very much evolving. In this handbook you will find advice on preparing and coordinating an **Abundance** project in your area, so that you too can share the wealth!