



WOODFUEL FROM HEDGEROWS

A TOOL-KIT FOR COMMUNITIES



Planning A Low Carbon Future For Dartmoor

THIS TOOLKIT WAS PREPARED AS PART OF DARTMOOR CIRCLE'S WOODFUEL FROM HEDGEROWS PROGRAMME

The programme also featured six events held around Dartmoor in November 2012. The events, for farmers and people living in small communities, demonstrated how they could work together to harvest woodfuel from hedgerows.

The programme was funded by the Devon Hedge Group through the Heritage Lottery Fund, and by Tamar AONB.

With special thanks to Bovey Climate Action.

Copies of the complete toolkit, as well as individual leaflets covering each chapter, are available to download from:

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Dartmoor Circle Woodfuel Toolkit

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* If you are running a woodfuel group you may need multiple copies of these pages. If you are setting up a woodfuel group, you may require an electronic copy of section 8. These, like all the sections of this toolkit, can be downloaded as separate, amendable Word documents from www.dartmoorcircle.org.uk

You can contact the editor by emailing: andrew@dartmoorcircle.org.uk



All of the guides in the toolkit can be downloaded from www.dartmoorcircle.org.uk



Dartmoor Circle Woodfuel Toolkit

1. An Introduction to Harvesting Firewood from Hedges.

1. Why are we interested in harvesting wood from hedgerows?

In the past, hedgerows were often used as a source of woodfuel. Until the 1950s, most hedges were laid or coppiced every 15 years or so, with the wood being used as fuel for cooking and heating. This changed with the introduction of tractor-mounted reciprocating hedge trimmers and flails, which encouraged annual hedge trimming and 'tidy' hedgerows.

Coal and electricity were cheap at the time, so there was less demand for firewood, and climate change had not been thought about, so burning fossil fuels was not an issue. Wildlife lost out as a result of the change, because there were fewer nuts and berries for birds and small mammals to eat.

This situation started to change in the 1990s, when farm environmental grants made it more worthwhile to manage hedges in the old way. They came just in time to stop hedge laying skills from completely disappearing, which is important because laying a hedge is the traditional way of ensuring continued growth in the future, while providing a stock proof barrier, and a wood harvest.

Since then, rising electricity and gas costs, and concerns about climate change, have made woodfuel gathered from hedges more attractive. Wildlife benefits as well.

2. What do you need to harvest hedgerows for woodfuel?

First you need a suitable hedge! Here is what to look for:

1. A hedge with the right level of growth. Hedges with 8-15 years of growth can usually be cut with hand tools. Much of the wood in hedges with 15-30 yrs growth will need to be cut with a chainsaw. Hedges that have been flailed in the last 8 years may not have enough usable firewood to be worth harvesting.
2. A hedge with a high percentage of good burning species, such as ash, beech, oak and hazel. Hawthorn and blackthorn also burn well, but their thorns are dangerous when



felling, logging and stoking fires. Most hedges have some thorn, but a hedge with over 35% hawthorn/ blackthorn may not be suitable for a firewood group.

3. A hedges near a road or track, to makes it easier to reach, and to remove harvested logs. Roadside hedges are unlikely to be suitable, though, for road safety reasons.

Then you need a group of people, with

1. Enthusiasm! Chopping and sawing wood in a small group is enjoyable, as well producing warmth on the day and afterwards!
2. Someone has who as laid hedges before, and knows which trees or saplings should be cut. A tree identification book, or a winter twig leaflet can help to identify species (one forms part of this toolkit).
3. If you need a chainsaw, a person who is qualified to use it, with an up to date certificate, and an insurance card from the group's insurer. Note: Chain sawing should be done with just one or two other (sensible) people present - chainsaws and workgroups don't mix!

You also need tools. A good selection of tools would include: a multi-purpose fencing tool; claw hammer; small bow saws/folding saws, loppers; secateurs; billhooks (for experienced users only). For transport, a wheelbarrow, and 4wd vehicle with towbar and trailer make a big difference.

Everyone should wear strong, comfortable clothes which are as thorn-proof as possible, thick-soled work boots and thick leather work gloves that fit well. The chainsaw operator will have protective clothing.

3. Working together

A good relationship between a farmer or other landowner and the community woodfuel group is essential. Make sure you have a detailed discussion with the farmer before you start, clarifying: when you will come, what hedge you can work on, where you can park and what vehicle you may bring onto the land; whether the farmer will relieve payment (on money or logs) for the work, and whether and where you may leave wood to dry.

The amount you pay the farmer depends on the quality of the wood, how much the farmer helps you, and accessibility, among other things. Dry logs cost about £100/dumpy bag (in March 2012).

It is sensible to have a written agreement with the farmer - there is an example of such an agreement in the toolkit.

4. Some practical tips for to harvesting firewood from hedges

Once you have everything set up, you can start harvesting wood. Here are some important points to bear in mind:

1. Hedge-work starts after leaf fall in November, and work on the actual hedge must finish at the end of February, when the sap rises and birds start nesting.
2. If the hedge is to be laid, you need a trained/experienced person to select/mark suitable stems and lay them. Look at www.devonruralskillstrust.co.uk for training info. While all wood has the same calorific value, green wood from different species can have different water content, making some heavier to transport for the same heat value. For example, freshly felled poplar has 60% water content, while ash has 35%.
3. Wood cut in the autumn has less water content than wood cut in the spring.
4. All wood burns best when seasoned (dried). If you burn green wood, a lot of the heat is used up in drying it, it produces more smoke, and it may leave creosote deposits in the chimney (ultimately damaging it).
5. Hazel from hedges does not have as many other uses as hazel from coppiced woodland, so is a good fuel wood.
6. You can use the winter tree identification guide in this toolkit to help identify the species in your hedgerow - or ask the farmer!

Our thanks to Audrey Compton of **BOVEYCLIMATEACTION** for much of the material in this guide.



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2. Bovey Climate Action's Guide to Starting a Community Woodfuel Group.

Would you like to cut your own logs for your wood-burning stove?

Do you own a source of firewood, either in hedgerows, copse or woodland that a community group could harvest?

Here are some ways that you could work together to use wood that might otherwise be wasted!



Devon hedgerow before harvesting and laying

Why start a woodfuel group?: Over the last few years, because of rising fuel prices and climate concerns, a lot of people have installed wood-burners - but reliable supplies of good quality, dry firewood are difficult to find, and firewood prices are rising. Although many wood-burners and stoves are very efficient, you need a lot of wood to heat your home, your water and possibly do your cooking too. Add to that the fact that a lot of people would like to get out and get fit, and you have a demand for a Community Firewood Group!

Bovey Climate Action started a Community Woodfuel Group in 2009 - if you would like to start your own group, hope this information, based on their experience, will help you. Note though - this leaflet should give you some ideas, but it isn't a blueprint, every group will be different!

Here are some ideas to help you start up:

1. Ask members of your group and local community groups if they'd be interested in joining a firewood group.



2. Publicise your idea in local papers etc - aim at having 12 people to start with.
3. Ask local farmers, or people who have bought smallholdings to conserve their trees and wildlife, if they have any hedges or copses that need coppicing - put up a poster in your local farmer's store, or advertise in Mole Valley Farmers newsletter, a local association of smallholders newsletter, local papers etc.

Once you've found a wood, or some hedges:

1. Draw up **an agreement** with the landowner that is fair and sensible for both parties - find someone with legal training/experience to check it. [Editor's Note: There is a template for an agreement in this toolkit].
2. **Insurance** is vital: All people working with hedges must be woodfuel group members in order to be covered. There is an extra premium for each chainsaw user. Bovey Climate Action insures with The Conservation Volunteers. [There is an information sheet on insurance in this toolkit]
4. Draw up an easily understood but comprehensive **Risk Assessment** - [See the example in the toolkit].
5. Buy a **First Aid kit**. You need one which is the right size for your group, and contains the items you need for the risks identified in your risk assessment. You can buy first aid kits from <http://shop.tcv.org.uk/shop/stock?l=level3;lid=49;sid=465> If you have a chainsaw user, it is sensible to ensure the person accompanying them has a first aid kit which is appropriate to deal with an unlikely, but catastrophic, chainsaw injury, and knows how to use it. Note: Only the chainsaw user and their companion(s) should be present on a day when a chainsaw is being used.
6. Invite all interested people to visit the hedges/woods with the owner, so that everyone can find out how the hedges/wood should be managed, and where the group fits in.
7. Set up a series of sessions during the cutting season (roughly from November to the end of February); with a designated member supervising, to ensure safety and to that the terms of the agreement are met.
8. Make sure that everyone who joins the group is given two copies of the risk assessment, one to read and keep, and one to sign and return.
9. Keep a register of members' names, email/phone numbers and addresses, where session dates and members' hours can be recorded. [There is an example of a membership form in the toolkit].

At each session:

1. Depending on the ease of access to the hedge/wood, the firewood can either be shared out after each session, or stacked on site to be moved and shared later. This is not an exact process - for example, if members know the size of their wood-burner,

they can select wood that fits their stove, but the whole process relies on a spirit of goodwill within the group!

2. Wood should be sawn and split green, before storing - it is much easier! It is a good idea to build or use a large, well ventilated log store - if wood is cut in the winter and stored properly for use the next winter, it will produce very little tar and burn efficiently.

Recommended Woodfuel Group rules:

1. All members to read and sign the risk assessment before working.
2. Members to ensure their hours are put on the register at each session.
3. Firewood to be shared out according to the hours each member has worked.
4. Members to abide by the agreement with the landowner.

Health and Safety - you've got insurance, but you don't want to need it! It's harder to enforce good health and safety practice when everyone in the group is a volunteer, rather than an employee, so:

1. Complete a risk assessment for each site, because each is different.
2. Always have an adequate first aid box and a mobile phone on site.
3. If possible, have a first aider on every woodfuel day, and get first aid training for your supervisors. CVSs sometimes run low cost courses.
4. Start each session with a reminder of agreed safety measures and a warm up. Backs and necks are particularly prone to strains, so include them in the warm-up exercises.
5. The supervisor should give any new/inexperienced members extra support, and make sure they know how to use the tool they have.
6. Swapping jobs frequently reduces stress and strain on the body, so try some felling, then some timber moving, then some cutting up.



Devon hedgerow after harvesting and laying

BOVEYCLIMATEACTION thanks



&



for their support



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3. Insurance for Community Woodfuel Groups

Insurance is essential for any community group engaging in woodfuel work, either in hedgerows or woodland. Apart from anything else, if your group is not a company, its officers (Chair, Treasurer and Secretary, for example) could be personally liable for damage caused by negligence.

Insurance can be obtained from The Conservation Volunteers (formerly the British Trust for Conservation Volunteers), contact Retail@tcv.org.uk or 01302 388 834.

If any member of the group will be using a chainsaw, the group will need to pay for chainsaw cover for that individual, who will need to produce evidence of current NTPC certification. They will then be issued a chainsaw card by the insurer.

Insurance cost Bovey Climate Action (BCA) roughly £215 (in 2012), plus a chainsaw premium, of roughly £30 per year. In BCA's case, this also covers its community garden, and its other events. The cost of insurance can be recovered from a membership fee, which is much lower per person than the value of the wood harvested.





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The Conservation Volunteers' application form asks about the nature of the activities to be undertaken, the number of volunteers, and project days, and the amount of projected income to the group. It also asks about the risk assessment undertaken. Risk assessment is an essential element of any woodfuel work using volunteers. There is an example of a risk assessment form in the toolkit.

The insurance will not cover the landowner, who will normally have public liability insurance already. If they do not, the National Farmers Union or Cornish Mutual can quote to supply it.



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4: On the day – A Guide for Leaders of Woodfuel Groups

This guide is for the person or people who will be leading a group felling or chopping wood as part of a community group. Quite a lot of this is to do with safety, and it is important not just for its own sake, but because it is required for insurance. If the procedure is not followed, the group's officers may not be covered.

The person leading the session should be experienced in felling and chopping wood, and good at working with volunteers.

1. Preparing for the session:

- Make sure you know what is expected of both the group and the farmer – if necessary, read the agreement with the farmer.
- Check whether a health and safety assessment has been completed for the site where the day's activities will take place. If it has, read it if you are not familiar with it. If not, you will need to complete one beforehand, so you can make copies for everyone (two each). You can use the H&S framework in this toolkit.
- Make sure you have a first aid kit which is big enough for the group, and has the right items to address anything highlighted in the risk assessment. If you are a first aider, that's great. If not, it would be good to check if anyone else in the party knows first aid.
- Take a supply of membership forms (see template in this toolkit) for any new people to complete, as well as the copies of the health and safety assessment. Make sure you have read the membership form, and can explain it. Also, take a register form or book so you can list who is there on the day.
- Take an accident book with you.





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2. At the start of the session:

- Give membership forms to anyone who is new to the group. They new sign one, and anyone is under 18, make sure a person over 18 also signs their form.
- Give each person two copies of the risk assessment, one to read, sign and return, and one to keep.
- Give a copy of the safety guidance to everyone.
- Make a note, on the register form, of everyone who is present.
- Explain anything which people need to know, to minimise risk.
- Lead everyone in some warm-up exercises.

3. During the session

- Always listen to the farmer, and do as requested, if it is safe to do so.
- Before starting work, barbed wire must be removed and reeled up- a fencing tool, a claw hammer and thick leather work gloves are essential. The job will be much easier if stock fencing and stakes are removed too.
- Then remove brushwood that isn't suitable for burning, or could be cut up and stored separately as kindling. Stack it tidily (all stems in the same direction) at least 3 metres from the hedge, so that it can be dealt with later.
- Saw the wood at an angle, so that it falls to the side of the hedge where you wish to stack it. If the hedge is to be coppiced, cut the stems about 12 cms above ground. Folding or pruning saws are very useful for cutting where there isn't much space.
- Stack firewood in 40-100 cm lengths, easily moved around without back injury.
- If there are several people working on a length of hedge, it is very important to allow a good space between workers. If felling, allow the height of the hedge-wood that is being felled. Give others warning before felling!
- Check whether everyone is using the saw or other tool they have safely, and in a way that minimises effort.
- If possible, remove the logs you've cut at the end of each work session - either share them out, or take to an agreed store for sharing out later. It is best to store wood for about a year, for maximum burning efficiency.
- Call off work if the weather turns very bad - either very wet or high winds.
- Remember to leave some trees/saplings to grow for wildlife, and for their beauty!

[Insert name of woodfuel group]

Membership Information and Joining Form

Our group has reached an agreement with the landowner to log and take away woodfuel.

We will be working in on set dates to harvest wood, which can be divided fairly between the members.

We welcome anyone who would like to join us to look after the woodland. You need to become a member of the group, agree to abide by the rules for working in the woodland or with the hedges, and pay the membership fee (this goes towards the cost of insurance). You can do these things by signing on the back of this leaflet and giving it to one of the organisers at the woodland.

It is very important that everyone sticks to the rules below– otherwise our agreement to harvest wood will be cancelled. It is also very important for our insurance, so please read these rules carefully. You will also need to sign a risk assessment form. We take safety very seriously, and there will always be a first aid kit on site.

Rules for people joining the community woodfuel scheme.

1. When to come

Members can only work in the woodland at community woodland events organised by the woodfuel group, when a nominated group leader is present.

2. Parking

Please car-share if you can and park **[describe rules for parking]**.

3. Getting started

At the start of each event, please sign the register which the leader will have – we need you to do this for your insurance. .

4. Working in the woodland

- a. Never work in the woodland on your own.
- b. Do not bring a chainsaw onto the land.
- c. Please do bring hand tools such as bow saws and loppers
- d. Do not fell trees, but if you are over 18 you may fell saplings up to 150mm in diameter with the group leader's approval. Otherwise, only work on marked felled trees.

[Insert name of woodfuel group]

- e. Stack all felled wood and trimmings neatly as directed by a group leader.

To join us, please read and sign below, and return this form to the nominated leader at the woodland.

I would like to become a member of the woodfuel group, and understand that there is a small membership fee. I have read and understand the rules for using the woodland, and agree to follow them.

I agree that I take part in the woodfuel group's events my own risk, and that neither the landowner nor the woodfuel group shall be liable for any injury, damage, loss or inconvenience suffered as a result.

I am over 18. [Please cross out if you are under 18. In that case, you must be with a parent or someone who is responsible for you, who must also sign this form].

.....

Signature

Date

Name (please print

Address.....

.....

..... Postcode:

Email address.....

(if you have one, so we can tell you about times when we will be working in the woodland). Phone number.....

Signature of parent or guardian (if applicable)

.....

Signature of parent or guardian (if applicable)

Date

[You can find out more on our website: Insert website address if you have one].

[Insert name of woodfuel group]

Risk assessment for Firewood from Hedges Session

Session date.....

Location.....

Hazard	Measures taken to prevent the problem	Likelihood 1-10	Seriousness 1-10	L X S Under 20 best, under 25 OK
Strains from using tools while still cold, or lifting,	Strains: warm-up beforehand, especially back and neck; take breaks every 30 minutes. Lifting - everyone to bend knees, get someone to help if log too heavy. Minimise carrying distance - move vehicle to load where possible and safe	1	4	4
Injury to other people while using/ in charge of tools, incl. trip injuries	Ensure working at a safe distance. If using an axe, remain twice the length of the axe plus arm from any neighbour. Ensure tools not in use are placed where they cannot form a hazard			
Slips and falls	Ensure appropriate footwear worn Ensure site not too steep			
Cuts and grazes	Ensure gloves worn, and tools treated with respect.			

Assessed by:..... Date.....

Each member to sign at start of work session.

I confirm that I have read and understand this assessment

Signed

Print Name.....

[Insert name of woodfuel group]

[Insert name of woodfuel group]

Members Visit Register

For insurance purposes, we need to keep a register of everyone who takes part in one of the woodfuel working sessions. To help us do this, please print your name, and sign, below.

Thank you.

Woodfuel session date:

Session leader:.....

Name.....Signature.....

Name.....Signature.....

Name.....Signature.....

Name.....Signature.....

Name.....Signature.....

Name.....Signature.....

Name.....Signature.....

Name.....Signature.....

Name.....Signature.....

Name.....Signature.....

Name.....Signature.....

Name.....Signature.....

[Insert name of woodfuel group]

Name.....Signature.....

Name.....Signature.....

Name.....Signature.....

Name.....Signature.....

Name.....Signature.....

Name.....Signature.....

Name.....Signature.....

Name.....Signature.....

Name.....Signature.....

Name.....Signature.....

Name.....Signature.....

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Name.....Signature.....

Name.....Signature.....

Name.....Signature.....

Name.....Signature.....

Name.....Signature.....



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8. Woodfuel Community Group Constitution Template

This is available from Dartmoor Circle. Please email andrew@dartmoorcircle.org.uk, giving details of the group you wish to start.

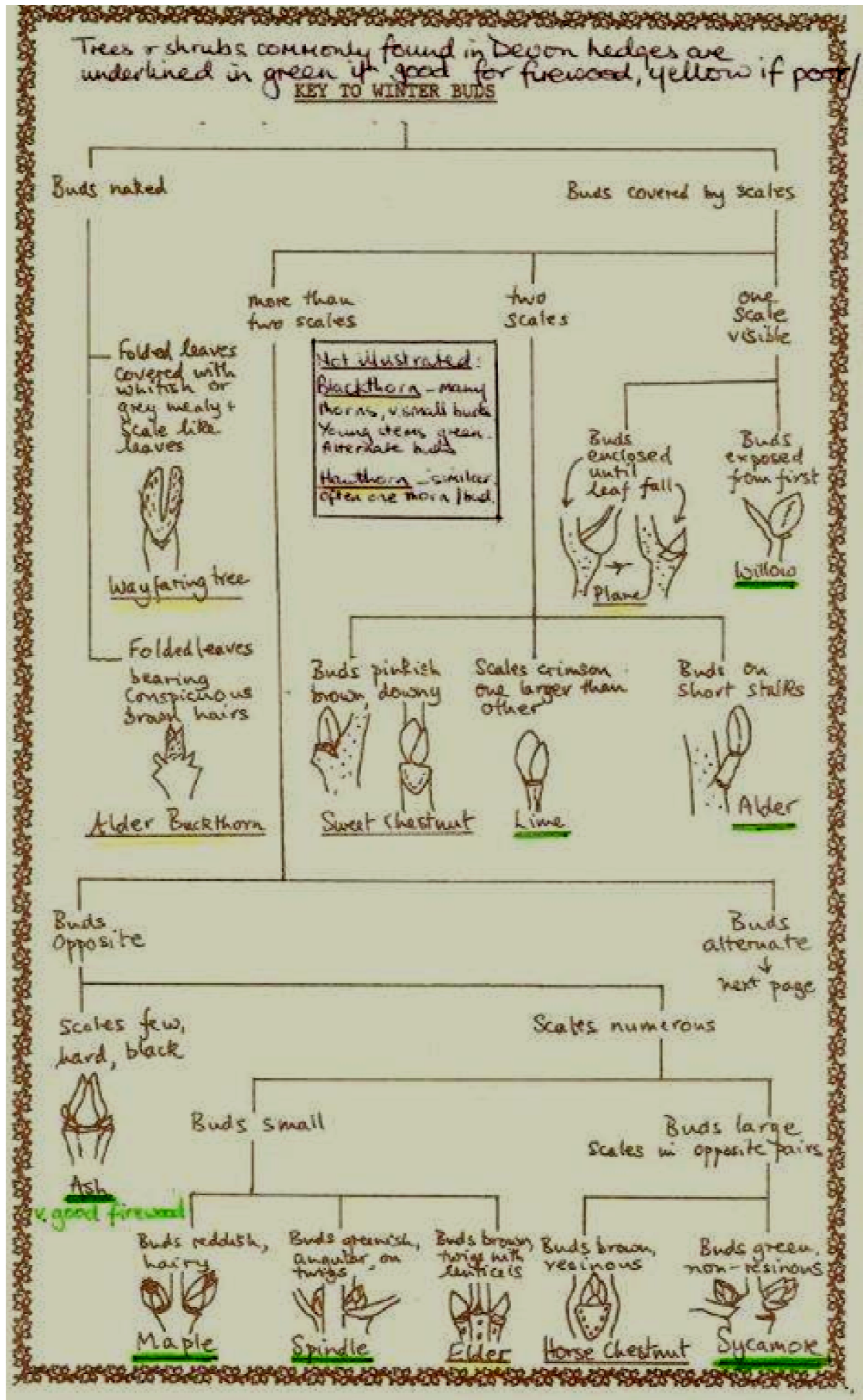
9. Agreement between Farmer/Landowner and Woodfuel Group

This is available from Dartmoor Circle. Please email andrew@dartmoorcircle.org.uk, giving details of the group you wish to start, and of the farmer or landowner you are planning to work with.



TamarValley
Area of Outstanding
Natural Beauty

10. Winter Bud Identifier



Winter Bud Identifier 2

