

Document No: 12/2/1

Date: July 2008

Title: The Origins of Orchards and Cider and Perry in England with particular reference to Cider

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From: Orchards and Groves; Their History, Ecology, Culture and Archaeology
Edited by Ian D Rotherham; Papers from a Sheffield Hallam Conference

The Origins of Orchards and Cider and Perry in England, with particular reference to Herefordshire

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Summary

In the late nineteenth century Herefordshire had more orchards than any other county and was famous for its cider. It is rather surprising to find the first reference to cider being drunk or produced in the country is the early fifteenth century. But the county was quick to catch up; by the sixteenth century there were many orchards and more were being planted. Herefordshire pasture fields were enclosed early. Orchards, cider and the enclosure of pasture may have been synchronous and related to the population decline following the Black Death. This is not the case elsewhere in the country where there are more medieval references to orchards and cider. Sixteenth century writers' descriptions of apples indicate that there were cultivars, but also wild apples, in the woods, of different types, suggesting that species have been lost.

Introduction

Apples are easy to grow and quickly produce a fermented alcoholic drink once crushed. You would think that, given humanity's need to drown its sorrows, everyone would have grown apples and made cider since earliest times. Strangely, this doesn't seem to have been the case. There are few references to orchards in the many surveys of chief landholders' estates (the Inquisition Post Mortems) in thirteenth to sixteenth century England. Orchards and cider appear occasionally in other medieval documents such as manor court rolls or bailiff accounts but not in Herefordshire, the county that was to become the chief cider producing region of England in the late nineteenth century.

By the sixteenth and seventeenth century orchards and cider had become an important part of the agricultural scene. Agricultural writers describe varieties of apple, and methods

of propagation and culture. Rent rolls, leases and other documents show that orchards and hedgerow apples were present, more were being planted and cider was being made and sold both in and out of the county. This evidence suggests that orchards and cider began in Herefordshire in the late medieval period. Why did it happen then? What happened to provoke this change in the countryside? Other changes were afoot in these centuries in the county, for example changes in tenancies, increase in livestock and enclosure of pasture. It is likely that the beginnings of cider and orchards were related to these developments. Moreover it is possible that the chief cider producing counties in the late nineteenth century other than Herefordshire; Devon, Somerset, Kent, Worcestershire and Gloucestershire, may well be able to trace their beginnings back to the same period and similar causes.

Archaeological and Botanical Evidence for Apples and Cider

It is thought that crab apples (*Malus sylvestris* ssp. *sylvestris*) came naturally into England after the retreat of the ice, probably in the mid Boreal 8000 to 6200 BC. However it is not possible to know this for sure. The main source of evidence for prehistoric vegetation is pollen, but it is difficult to distinguish the pollen of Apple from other Rosaceous species. Apple, Pear, Wild Service and Rowan have similar pollen and cannot be told apart. In theory they can be distinguished from a second group of Rosaceous trees which include Hawthorn, Blackthorn and Cherry (which all have similar pollen). However the difference is not clear cut and most palynologists group all these species together under the general heading of *Rosaceae* (Daffern, pers. comm.). Neither can the charcoal or waterlogged wood that is occasionally

recovered from archaeological sites help much because it cannot be told apart from other trees in the *Pomoideae*. Pear, apple, hawthorn, whitebeam, service and rowan are members of the *Pomoideae*. All these woods are anatomically similar. It is not possible to distinguish these woods from their structure (Gale, pers. comm.). So it is impossible to distinguish when these trees were individually first present in Britain before historic records.

Crabs are quite rare trees, most that we see in our hedgerows today are actually wildings, grown from pips from a cultivated apple (*Malus domestica*). The native crab has always been rather mysterious, usually found as a single tree in the middle of a wood, which is curious as each tree produces thousands of seeds. Something must prevent the propagation. Studies have shown that the fruit must be eaten first (and the seeds therefore clean of pulp) by cattle or horses and dropped in an unshaded habitat for it to germinate and grow (Buttenschon and Buttenschon, 1999). Apple seedlings grow well in the waste apple pulp thrown out from cider making if it is in an unshaded habitat and not grazed (Jay Abrahams, Westons Cider, pers. comm.) In Mesolithic Britain, crabs would no doubt have been spread by Aurochen (a large wild cow) and subsequently seeded and grown in grassy glades.

It is probable that there were more crab trees in woods in the past. Records exist of people collecting apple slips for rootstocks from the woods (Worlidge, 1678), something you would rarely do today as you would find neither crab or wilding seedlings. The tree needs light to grow and to fruit. When woods were grazed, as many in Herefordshire were, there were probably more apple trees.

It is possible, however, that there used to be different types of wild apples. Seventeenth century agricultural writers in Herefordshire distinguished several types which they interpreted as species, i.e. the seed from them would produce, more or less, the same apple. Worlidge (1678) advises using root stocks from a Crab, Wilding, Paradise Apple or Gennet-Moyle. Beale (1656) says, "*The neighbours ...*

being so addicted to grafting that they take not notice of any natural apple, except the Genet Moyle, the Kydoddin, the Sweeting and the French Cornel; which are found in all places." Some doubt is thrown on this with his next sentence, "*'Tis sure that the kernels and same apples, in a far different soil do produce a different apple; but still with some inclination of the original if it be the kernel of an ungrafted apple.*" A 1449 Canterbury grant gave John and Alice the profits of three pear trees called Jennetings ('Genetynges') and 'three trees called Wardens' interlineated, standing in the garden of the tenement. However, the Oxford English Dictionary defines genet as 1706 Phillips (Ed. Kersey), Gennit, or Genniting, a kind of Apple which is ripe before any others. He says apple trees can be coppiced, and have 'survived many uprisings' according to local old people. Were these agricultural writers describing a different sort of crab tree? One that, coppiced, grew more freely in woods and produced larger apples than the crab we know today? It is possible of course that people merely grouped and named apples. If they were green and of a certain size they were called Gennet Moyles. If they were reddish, a Paradise Apple. If small, green and hard a Crab, etc. The agricultural writers, however, favoured trees planted from seed. A maxim was, if you want immediate profit, to graft, but if you are planting for the future, grow from seed (Beale, 1656).

Recent genetic research has traced the domestic apple (*Malus domestica*) to the wild apples of Kazakhstan, probably introduced into Britain some time in prehistory. Hybridization and introgression between the Crab and the Domestic Apple (*Malus domestica*) must have occurred frequently subsequently, as well as selection both by mammals spreading the seed and by people selecting for taste (Harris *et al.*, 2002; Coart *et al.*, 2006). No doubt in the future DNA research on plant remains from archaeology sites will resolve the issue. A recent discovery at Clifton Quarry on the River Severn suggests *Malus domestica* had not reached Britain in the Neolithic. Over forty charred apples from a pit of circa 2,500 BC were found, associated with a huge quantity of charred

barley grain (over 7,500 grains). Impossible to explain it is thought this is likely to represent some ritual activity (Pearson, L. Environmental Archaeologist, Worcestershire Archaeology, pers. comm., 2008). The apples were very small (Figure 1), suggesting they were crabs. If *Malus domestica* were present surely they would have been used for such a special purpose?



Figure 1: Neolithic apple

Writing from the Greek (*circa* 900 BC to 400 BC) and Roman periods (*circa* 400BC to 400 AD) show that people had by then cultivated apples. Roman writers such as Varro (116-27 BC), Columella (4-70 AD) and Pliny (23-79 AD), describe growing, storing and selling apples and pears, and there were several varieties. The Romans must have introduced cultivars into Britain and these would be based on the wild Kazakstan apples not the native Crab. Some may have survived, even if only as wildings, to be described by sixteenth and seventeenth century writers, before they died out, overwhelmed by later planting, selecting and grafting.

Evidence of Orchards and Cider from Documents

The national Access to Archives (A2A) website lists documents from County Record Offices across England. A2A is a selection of documents, not the totality, and the catalogue also depends on what the individual cataloguers considered important. Nevertheless, A2A contains a large and representative sample of English documents. The National Archives (TNA) has a more comprehensive catalogue; over 10 million entries of documents that have become part of the national collection. The two

catalogues together, therefore, give a very good sample of documents. The A2A has 262 records of orchards before 1500 AD and TNA thirty-five records. Some orchards of course may refer to plums or cherries, only occasionally are apple or pear orchards mentioned specifically (1498, Stivichal, Stafford: '...an apple orchard and a garden' and 1355, South Elham, Suffolk: '...and the apple orchard', and Bristol, 1385: '...between the apple orchard of the Prior of St James. A 1414 document relating to the profits of Heath Manor, Notts refers to 'the orchard, apples, pears and all other fruit'. A 1651 Cornish marriage settlement refers to a pear garden).

The documents reveal that orchards are found all over the country. There are more fifteenth century references than fourteenth and more fourteenth century than thirteenth, but this may only reflect the creation and survival of documents. From the sixteenth century onwards however there are a huge number of references to orchards and it seems likely that this is a reflection of the true situation, i.e. there were more orchards not just more records of orchards.

The earliest references to orchards come from the Welsh laws of Hwyl Dda of the tenth century and the North Wales Code (Book III chapter 20, see Hogg & Bull, 1888). Apple and Oak trees were valued highly at the same rate. The laws refer to grafting, sour crabs and to monasteries planting orchards. In England one of the earliest records is a twelfth century grant of land from a demesne 'as far back as Robert's Orchard' in Northants. Other early records are a 1180 or 1220 (not clear) mention of a house with orchard and garden in Gloucester; a 1200 document of an orchard at Hole of Parke, Devon near a hollow way; a 1203 document reference to the Priory's orchard at Stowe in Staffs; and a 1216 document mention of a manor of Marneys Orchard in Cornwall. There are a few other early thirteenth century documents in the sources listed above.

Orchards were called *pomerium* or occasionally *orto*. It is possible that some medieval 'gardens' were actually orchards, there are for example one or two references to 'a garden called orchard', and to apple and pear

trees growing in a garden (Leicestershire Record Office, DE221/2/2/50 1346 "*John grants to Lord Thomas a certain plot of garden in Medburn, containing in length 14 perches and 10 feet, the perch being 20 feet of a man, in breadth to the northern head 4 perches and 7 feet with all apple and pear and other trees growing on the plot*"), but there are many more references to 'a garden and orchard', showing that there was a distinction (1374, Hampshire one garden and one orchard; 1489, Sandhawe land, orchard and garden; 1450, an orchard lying north of the garden of ...; 1353, Pilton a burgage, garden and orchard, 1385, Bristol, the garden and dovecot next to the apple orchard, and many others). In 1434 at Baddersley Clinton, Warwickshire, a gift was recorded that included half the orchard or garden of the manor; in 1319 at Castor, Northants there is a reference to half the fruit growing in the garden called Orchard belonging to a house within the city gates; in 1397 Yorks, a croft with two bovates and a portion of a garden called Stevens Orchard and a cottage thereon; 1325 and 1328 in Leicester a reference to a holding of half the garden called Canviles Orchard; 1377 Axminster a garden called 'Spere Orchard'

Orchards are often associated with monasteries. There are several thirteenth century references to the Canterbury Priory's orchard, another to Kyrksted's, a 1427 reference to Dunster Priory's orchard, a 1239 reference to an orchard let from the abbot of the convent of Coventry, a 1405 and 1429 reference to the orchard of the Priory and convent of St Oswalds at Wotton, Gloucester, another to the Priory of St James, Bristol, and another 1203 orchard reference to Stowe Priory in Staffs.

Many medieval orchards are recorded as part of burgage plots within towns, such as Stivichal, Bridgenorth, Chester, Torpurley (Cheshire), Bristol, Castor, Arksey, Tavistock and others. There are several references to orchards belonging to castles (e.g. 'Lythirpul' 1310 and 1368) and halls and manors (e.g. Baddersley Clinton, 1434). It is possible that orchards were considered normal accoutrements to a manor, an Inquisition Post Mortem (IPM) of 1303 specifically mentions that the capital messuage

(farm) of the manor of Hunmanby, East Yorkshire has no dovecote, orchard or herbarium. However, the huge majority of IPMs do not list orchards and if they had been present, they would surely have been listed as they list everything else. Several 'chief' messuages however have orchards (e.g. 1250 Stivichal). Orchards also belonged to more ordinary holdings, they formed part of leased tenements along with the arable, meadow and pasture e.g. a 1279 quit claim for one messuage with an orchard standing on it at Beltinge in Godmersham. Some were apparently parts of smaller properties, e.g. in 1317 at Little Addington, Northants, a gift included one virgate with a hovel and an orchard (a virgate is a medieval holding of about 12ha. A person who held one virgate would actually have been comparatively wealthy. Many people had less land than this, and it may be that the hovel was not the owner's own house).

Few orchards are named (an orchard in Flixton, Suffolk was called Belauntysyerd in 1427; an orchard on Bellingdon farm, Bucks was called The Great Orchard in 1485, an orchard in Chudleigh, Devon was called Tempell Orchard in 1476, there was a le Halle orchard in 1416 in Stivichal); they are mostly described in the typical medieval way in relation to other peoples land, e.g. "*the orchard between those of Thomas de Streta and Gunild Tailur ... extending as far as the other Forinsec orchards*" (1250, Totnes), or "*... between the land of Roger le Parker and the orchard of the said Thomas*" (1413 Nantwich).

None of the documents mention the size of the orchard, which implies a small size, for the orchard would have been mentioned separately if it were significant. One orchard is called 'The Big Orchard' (Huntingfield, Lines, fouteenth – sixteenth). There are occasional references to new orchards, such as in 1359 Bagots Bromley, "*and a house built there with orchard and garden in Le Thornyshall enclosed by hedges and ditches*"; and in 1332 in Lines "*from the way under the new orchard ... also a selion lying under the old orchard*"

Most of the documents don't describe the orchard, but there are snippets of information. In 1385 an accounting document relating to Harford Manor, Devon includes the cost of hiring men for hedging and cutting down and uprooting thorns, to hedge fields and the orchard. In Okeover, Derby, a late thirteenth century document lists an orchard and hedge. A 1286 document of a controversy involving the abbot of Kyrkested orders Gerard le Breton to "*build a stone wall in the dyke between the orchard and grange of the abbot and his own tofts*". A 1405 document records the sale of all trees and underwood in the orchard and grove of the manor of Foscote, Northants (TNA). A 1322 document of West Yorkshire states "*the orchard between the garden of TT and Matilda's messuage on which orchard all Matilda's sheep run*". A 1476 record relating to an orchard in Chudleigh, Devon mentions the water courses and springs in Tempell Orchard. A 1227 reference to St Gregory's Priory in Canterbury also says it has a watercourse through it. This orchard "*must bring a basket of fruit to the Cathedral refectory each year*" showing it was an orchard of dessert fruit. A 1376 document relating to Mayfield, East Sussex states that if John Turner builds on his land or makes an orchard he must give a heriot (payment on entry to property) to the lord of the manor.

Fruit trees were expensive. One document lists forty-seven kinds of pear trees and thirty-four plum trees to be bought for £30 0s 8d, which included 182 pear trees at 2s each, ninety-five plum trees at 2s, apricots at 3s 4d each and pippins [pepins] at 16d each (Lambeth Palace; Shrewsbury Papers MS.709 date: 1284-1643). The earliest record for Herefordshire in fact emphasises this. It comes from the 1292 Eyre (i.e. King's travelling court) Rolls (TNA JUST 1 303 (1292)) when a John Bras was fined 16s for cutting down eight apple trees at Aynaltheston (probably Aylestone) Hereford. This is an enormous amount of money, and must reflect the seriousness of the crime, the worth of the trees or both. I have not found any further records of apples or orchards for Herefordshire until 1413 when the lord of Pencombe Court granted Walter Wilke and his wife a messuage, 30a of land, Pole Orchard,

Knackers Croft and le Brodecroft in Pencombe for their lives for a yearly rent of 10s (HRO A63/1/1-23 O/M63). It is interesting to note that there were many orchards in Pencombe on the 1840 title map, though none were called Pole Orchard at that time). On the other hand there was an influential family called Orchard in Hereford recorded in documents as early as 1403 (TNA) and in 1435 a John Orchard was a witness at Lower Bullingham. Kings Orchard (Hereford) was recorded as a place name in 1413. A deed dated 1 December 1445 in the Hill Court Estate papers of the Trafford family lists a messuage and orchard adjoining next Walfeldstyle being 12d rent (A2A, Hereford Record Office).

From all this it can be seen that orchards were known and reasonably common in England in the medieval period, particularly in monasteries, manor houses, towns and castles. But the trees were valuable and probably for dessert fruit not cider. Orchards were small, often hedged or fenced and often near the house. Some at least had sheep on them.

The rare references to cider (below) indicate there may have also been some cider orchards, scattered across England with, possibly, more in Devon, but they were not common.

The pear tree is even less well documented than the apple, with only a handful of medieval references on the A2A website. It is believed to be a native tree, found like the crab as an isolated individual in woods (Rackham, 2003) and, like the apple tree, agricultural writers advised planting it in hedgerows as a useful fruiting tree. Several medieval place and people names of perry exist however, implying pears and perry were well known. In documents the Pear often appears as a boundary tree, indicating that it was usually an isolated, distinctive, single tree, and long lived. One of the earliest examples of this is a late eleventh century boundary clause in a land grant from King Aethelstan to the Minster of Exeter.

"... along the stream to 'wyndeles cumb', to the pear tree ('tha pyrian'), then along the dike on the way ..." (Canterbury Cathedral Archives CCA-DCc-ChAnt/E, eleventh century)

Another typical fourteenth century example is:

"beyond pear tree called Wyteperie 10 feet towards house of (i)" (Gloucestershire Archives (1373) D640/T28).

By the seventeenth century perry was being produced in Herefordshire:

"Pears make a weak drink fit for our Hines, good for women, gentry don't like, if mixed with some harsh kind of apple makes a happy mixture. Bosbury is famous for a peculiar perry which has all the masculine quantities of cider. It is quick, strong and heady, high coloured and retaineth a good vigour for two or three summers. The fruit is so hard and coarse that even a pig won't eat it, therefore it is called the Baveland Pear" (Beale, 1656).

Types of Apples and Pears

Occasionally the names of apples and pears are given in medieval documents. Robert de Evermue in 1205 held his lordship of Redham and Stokesley in Norfolk by petty serjeantry, paying 200 pearmaines and four hogsheads (modios) of wine made of pearmaines. In 1292 Edward I's fruiterer's bill mentioned costards sold for 1s/100. This name led to the term custard monger meaning fruit and vegetable seller.

Plants from pips are called Pippins (Hogg & Bull, 1888). A 1449 Canterbury grant refers to three pear trees called Jennetings ('Gienetynges') and "three trees called Wardens". In 1624 Wardens referred to a particular type of cooking pear (Shakespeare Archive ER 3/2238 24 September 1624). Sorel and Calewey pears are also mentioned (TNA E40/4090; Henry III 1216-1272 sorel pears and E40/4146 18 Ed 1 (1290) pira de sorel).

References to Cider from Documents

Surprisingly few references before 1450 exist for cider from the two archives of A2A and TNA; so few in fact they are worth listing:

- *Staffs, 1200, a house called Presswihus with outbuildings including a cider press (molendina ad poma).*
- *Hampshire, 1270, a quitclaim which included 1 tun of cider and a quarter of corn per annum with use of lands for one life time.*
- *1275 Sale of cider Battle Abbey, Sussex (Jackson, (2003) The Biology of Apples and Pears, CUP).*
- *1275 Cider made in Yorkshire (Jackson, (2003) The Biology of Apples and Pears, CUP).*
- *Warwickshire, 1276, 20s for payment for cider at Wootton Wawen.*
- *Cornwall, 1341, purchase of cider in a list of victuals bought.*
- *Sussex, 1349, expenses for buying and carriage of cider (cisere) to Shoreham, (TNA).*
- *Devon, 1358, sale of cider at Sampford Peverell.*
- *Devon, 1383, reference to cider (sicer), collecting apples in a garden, carrying to presser, hiring a presser to make two casks of cider, milling apples and carrying home two casks of cider.*
- *Devon, 1431, reference to cider at Kingskerswell Manor.*
- *Gloucestershire, 1475 to 1485, reference to cider mill at Rodley (TNA).*

The 1349 reference above is an instruction to Roger Daber, Reeve of Surrey and Sussex, to take to Shoreham fifty-two barrels and one pip (a very large barrel) of cider, which is to be collected from the surrounding area. From Shoreham it must be hauled to the docks, loaded on boats and taken to Calais. The cost of the cider was £34 6s 8d, with each barrel costing 13s 4d. (Rogers' huge 1866 survey of prices (*A History of the Agriculture and Prices in England*) found a 1276 reference of cider at 3d/4d a gallon. We don't know how big these

fifty-one barrels were. Coopers terms are a pin (four and a half gallons), a barrel (thirty-six gallons), and a hogshead (sixty-four gallons). If a hogshead at 3d/gallon it would be 13s 6d, the same price as here, suggesting the barrels were hogsheads.) The cost of bringing it to Shoreham was 47s 2d; of keeping it in store in Shoreham from 1st Feb 1349 to 1st April (fifty-nine days), 34s 7d; taking it by boat to Calais, 115s 11d; plus two recorders at port for fifteen days at 6d per day. The whole cost was £44 19s 4d. Barrels varied in size but if they were sixty-four gallons (the size of a hogshead) it would make the cider 3d/gallon, a very low price, but fairly standard.

These references and a few others (e.g. a famous one is Chaucer's (1360) *The Monks Tale*, "*This Sampson nevere ciser drank ne wyn*") show cider was made and sold in England in the medieval period. The price was between 2.5d and 4d a gallon, cheap in comparison to wages, which were 2d to 4d a day at this time (Rogers, 1866). There are many more references to beer though (seventy-four in TNA compared to only two for cider), partly because beer was regulated by the state and the manor, but this in itself shows how much more important it was than cider. Why was cider less important than beer? Was it a matter of taste, economics, regulation or technology? Price (as today) may have had something to do with it. Beer is cheaper to make and this was reflected in the medieval price, about 0.75d to 1.5d a gallon depending on quality and area. Taste may also have been a deciding factor. The household accounts of the wealthy landowner Alice de Bryene showed that in 1423 a new heading appeared in the bailiff's report, that of "ciser", three pipes, one barrel and part of a barrel. She sold it for 16s 5d but even so it may not have been economic. It did not appear again in the accounts (Swabey, 1999).

Another explanation with some evidence to support that cider was made and sold in England in the medieval period, is that cider was called wine. In 1205 Robert de Evermuc was found to hold his lordship of Redham and Stokesley in Norfolk by petty serjeantry, paying 200 pearnains and four hogsheads of wine made of pearnains into the exchequer on the

Feast of St Michael yearly" (Hogg & Bull, 1888). Here cider is clearly called wine. Other documents, however, show wine was distinguished from cider. Alexander Neckham's twelfth century description of a buttery lists:

"Pure wine, cider, beer, unfermented wine, mixed wine, claret, nectar, mead, pear wine, red wine, wine from Auvergne" (Brears, 2008, 381 quoting Scott, 1975).

It may be that cider production wasn't able to expand until mills were invented. Worlidge (1678) says of beating fruit in trough, three to four labourers might beat twenty or thirty bushels (a volumetric measure, equivalent of about eight gallons) in a day whereas a mill could produce two to three hogshead (a hogshead is about sixty-four gallons) in a day. Pounding apples with a beetle and trough would be hard work and time consuming. Mill stones reduced this work, but in themselves represented quite an investment. They are heavy, must be mined, built and transported. Because of this, even in living memory, Herefordshire people shared the cider house mill and press with neighbours (Interviews Cider Museum, Hereford, 2006-2007).

Mill stones are difficult to date, the earliest dated one I have seen is 1724, but no doubt there are earlier ones. Peter Brears has found wonderful medieval illustrations of people working at presses that extract liquid (Brears, 2008), very similar to cider presses. The illustrations are French and Italian and could have grapes or apples in them, but it shows that the technology was known.

Returning to Herefordshire, the earliest reference to cider was in the very south of the county at Goodrich. Joan de Valence had cider in August and September in 1297 (Woolgar, 1999, 128 quoting TNA E101/505/26-7 the household accounts of Joan de Valence, countess of Pembroke). This is a rare record however, and as Joan was the Countess of Pembroke, travelling from manor to manor, the cider may not have originated in Goodrich. The next reference is dated to 1400, which comes from a Court Roll for Holme Lacy (Hereford Record Office AF72/10). In it Gyllam Fiensley

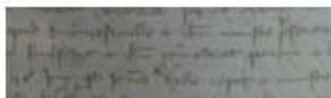


Figure 2: Document of record of cider being stolen, 1400 AD, Holme Lacy

was unjustly accused (according to the court) of entering the house of Agathe Fulfodys and taking her bread and drinking her cider (spelt 'sizeram' - see Figure 2). This is more convincing evidence that cider was common fare by this time.

Enclosure and Orchards

Documentary evidence implies that in Herefordshire cider and orchards developed in the fifteenth century. This was the century after the Black Death that hit the county particularly badly, possibly reducing the population by a half. The population crash and other causes led to changes in tenure and leases, to an increase in livestock and, importantly for cider, to enclosure.

Several sixteenth century surveys of holdings show that enclosure happened to pasture first; indeed some arable remained in communal fields well into the nineteenth century (Numerous surveys of holdings list pasture as enclosed and arable as in communal fields in the mid-sixteenth century, for example TNA LR217 James 1st survey 1589 to circa 1610, Leominster priory lands). The pasture was enclosed presumably because people no longer put their animals into the care of herders or tethered them on the common but more productive animals required small fields that enabled rotation of grass. Tithe maps show many fields were enclosed along strip boundaries, creating small narrow fields, but sixteenth and seventeenth century documents make clear that there were also larger enclosed fields.

Early agricultural writers describe apple trees as growing in the hedges. Gerarde wrote in the *Herball* of 1597, "*Kent doth abound with apples ... I have seen in the pastures and hedgerows about the grounds of a worshipful gent dwelling*

two miles from Hereford called Mr Roger Bodenham, so many trees of all sortes that the servants drink for the most part no other drink but that which is made of Apples ... the Parson often has for tithes many hogshead of Syder".

The later writers, all of whom no doubt had read Gerarde, encouraged this practice. The Herefordshire writer John Beale in the mid-seventeenth century says that, "...in most places our hedges are enriched with rows of fruit trees, pears, or Apples, Gennet-Moyles or Crab Trees." "*Our Gennet Moyles are commonly found in hedges or our worst soil, in Archenfield or Wales*".

John Worlidge of Hampshire, in his *Treatise on Cider* in 1678, advises to, "*plant fruit trees in hedgerows*" where they will thrive on the banks. He suggests people plant or take crab stocks out of woods or hedgerows.

John Evelyn in *Sylva* (1664) remarks, "*It has been the practice of Herefordshire, in the plantation of Quick-set-hedges, to plant a Crab-stock at every twenty foot distance; and this they observe so Religiously, as if they had been under some rigorous Statute requiring it: But by this means they were provided in a short time with all advantages of for the grafting of Fruit amongst them, which does highly recompense their industry*". He adds, "*I do only wish (upon the prospect, and meditation of the universal Benefit) that every person whatsoever, worth ten pounds per annum, within his Majesties Dominions, were by some indispensable Statute oblig'd to plant his Hedge-rows with the best and most useful kinds of them*".

This is clearly what happened. Countless leases from the sixteenth century onwards required the tenant to plant an orchard of apple and pear trees and to plant hedges, sometimes with apples. The two examples below are typical:

"Rent 33s. 4d., accustomed services, Entry fine £13 6s. 8d. in four instalments, in default of payment the admission is void. Tenants to be ready to serve the King under the lord's

leadership, to plant two apple or pear and two ash oak or elm trees annually" (Devon Record Office, (1533) 123M/E1084)

"£4 p.a. and two good fat capons or 2s. 6d. p.a. in lieu; £3 heriott. To plant thirty apple and pear trees within three yrs., and to plant oak and ashes in the hedges; and to do suit of court" (Nottinghamshire Archives, Herefordshire Papers, (1697) DD/4P/52)

Leases also protected oak, elm and fruit trees from being cut 'below the butt'

"Tenant not to cut oak, ash or crab trees at the butts, and to plant twelve apple or pear trees likely to bear fruit within four years" (1631, Churchstoke Salop, Ref 11/726).

The leases show that in Herefordshire, the enclosure of pasture and the production of cider were related. There were apple trees before the fifteenth century but they were not common and they were precious, probably grown for their dessert fruit. From the fifteenth century, farmers began to plant apple trees as a crop for cider, as a side line to arable and pasture. Orchards were used for pasture and sometimes for arable, it is only in recent years that growers have concentrated on one or the other.

Under the influence of improving landlords such as John Scudamore (1601-1671), cider quickly took on cultural significance, providing alcoholic drink for workers and a refined drink for the aristocracy. It was promoted as healthful, the cider-making process supposedly removed dangerous bacteria and viruses making it safer than water, and according to some, the reason for the famous longevity of the Herefordshire agricultural labourer. Ten centenarians supposedly entertained Charles II with a reel when he visited Herefordshire, the writer attributing their longevity to the local cider (Hogg and Bull, 1888)

Conclusions

Orchards expanded in Herefordshire when farming changed from medieval communal agriculture, with open fields and grazing on the fallow and commons, to small fields of pasture enclosed by hedgerows. This happened in the

fifteenth to seventeenth century. Apple trees were planted in the new hedgerows and pasture and provided a useful second crop. Cider was promoted and encouraged by improving landlords. Early post medieval varieties of apples came from seedlings, some of which may have come from *Malus domestica* that survived wild in Britain from the Roman period. Grafting of favoured types replaced seedling propagation from the seventeenth century onwards.

Acknowledgements

Thank you to the sources used, to Gillian Bulmer and Gerald Dawe for discussions and reading the paper and Peter Brears for providing information on presses and early references to cider.

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