NOTES TO THE APPENDICES A & B: COUNTY CHARACTERISATIONS and COUNTY TOTALS

In compiling this information a number of problems have been encountered. Firstly with the counties themselves in that boundaries have changed over the years and some areas which are now metropolitan boroughs were originally just part of a county, for example Liverpool and Manchester are now separate entities but at the beginning of the 19th century were part of the county of Lancashire as was indeed Furness.

Secondly, the current list descriptions are allocated on the 1974 counties and therefore include for example Avon and Humberside which no longer exist. Where possible sites have been redistributed to their old counties, and therefore the part of Avon which is now in the local authority district of South Gloucestershire has been allocated to the old county of Gloucestershire.

Thirdly in addition to the boundary changes, the information from the trades directories is somewhat variable. It has not been possible to use the same compliers for all counties or for both periods. Generally for the 1890s, Kelly's has been used and for the earlier period, which actually spans the 1820s to the 1840s, Pigot's. However, especially for the earlier period there is not one year which is universally available, and different directories quite clearly had different methods of compiling their entries, hence some rather surprising results on occasion. It must also be remembered that not all maltsters would have been included.

Finally, the county surveys are only overviews, and therefore do not attempt to cover every malthouse or go into any detail on individual maltings. The omission of a maltings is therefore no reflection on its significance. Some counties are traditionally associated with malting for a wider-than-local market. These are identified in the entry as a "malting county" and include the following:

Dorset

Essex

Hertfordshire

Lincolnshire

Norfolk

Nottinghamshire

Shropshire

Staffordshire

Suffolk

Wiltshire

Yorkshire

APPENDIX A

Malthouses in Bedfordshire

Bedfordshire is not known as a "malting county", although the county did have an important trade in corn and in the 19th century the vale of Bedford was known for its plentiful barley crops. In the 18th century, malt from Biggleswade was sent via the Ivel Navigation to Kings Lynn and thence to London. Some malt was produced for the county's not very extensive, brewing industry which included the Biggleswade Brewery. Otherwise, the production and consumption of malt in the county may be described as local.

There is little historical information available before the 19th century. The exception is Biggleswade where in the 18th century there were at least 26 malthouses. Pigot's directory for 1830 shows that the towns where malting was important were Bedford itself, Biggleswade, Leighton Buzzard, and Luton. All except Luton remained important centres throughout the 19th century. A number of villages also had a malthouse, including Harrold, Shefford, and Woburn.

Not surprisingly there are few surviving malthouses. The only listed malthouse is described as 17th century but it is only the name on the house which indicates the former use of the site. An 18th century brick built maltings associated with the Biggleswade Brewery survived until the end of the 20th century although it had ceased to produce malt in the 1930s.

Early malthouses would have been timber framed but later ones would have been of brick with tile roofs and later slate.

Number of listed malthouses in the county: 1

Malthouses in Berkshire

Berkshire is not now known as a "malting county", but there is no doubt that malt production was historically an important part of the local economy. The chalky hills of the county were particularly suited to growing of malting barley and it was the staple grain in the 16th and 17th centuries. Historical references indicate that by at least the 16th century malt was being produced in sufficient quantity for it to be exported down the Thames to London. The trade in malt was particularly important in Abingdon and Wallingford. The improved navigability of the river Kennet in 1714 further assisted the county's malt trade to the capital. The trade in malt remained important until the 19th century with the towns of Reading and Wallingford on the Thames being of pre-eminence. On the river Kennet the most important malt producing towns were Abingdon and Newbury. All these towns sent their malt to London by barges which could carry between 1000 and 1200 quarters (or 100 to 120 tons (98 - 117.84 tonnes) dead weight). During the 19th century the production of malt and the trade in it to London gradually declined.

Several buildings listed as malthouses survive from as early as the 16th century, with the one at Sonning being the earliest, and others of a later date, 17th century at Aldermaston, Upper Lambourn, and Streatley. However, none of them appear to retain any readily identifiable features such as a kiln, and therefore it is only the name which indicates their former use. Even the later malthouses of the 18th century examples of which are to be found at Newbury, Beenham and Bracknell are just names with no surviving malthouse features. Those which do survive in Reading are 19th century, with one of the Courage's malthouses, on Fobney Lane, of possibly early 19th century date. Their other malthouse, also on Fobney Lane is clearly later 19th century and although built as a floor maltings was later, in the 20th century, converted to a pneumatic plant, and now it has been converted again to leisure uses. Both are listed grade 2. The malthouse on Malthouse Lane is clearly a 19th century malthouse built of brick with a slate roof.

The malthouses in Berkshire were usually constructed of brick reflecting the fact that there is little suitable building stone available. The only exceptions are early buildings which are timber framed. The roof materials were initially tile and later slate.

Malthouses in Buckinghamshire

Buckinghamshire is not now a "malting county", but there is no doubt that some malt was produced. The Chiltern district was well known for the growing of corn, including barley. Also, there was some trade in malt as Pigot's directory refers to the county having a "tolerably prosperous traffic in malt, etc."

The main towns where malting was carried on were Aylesbury, Buckingham, Newport Pagnall and [High] Wycombe. A good many villages and smaller towns had one or two maltsters.

There is some evidence for 17th century maltings, but this mainly comes in the names of buildings such as Maltings Farmhouse at Hanslope which is of an early 17th century date but whether there are any recognisable malthouse features surviving is not known. Likewise malthouses said to be of an 18th century date are often nothing more than a name, with no recognisable malthouse features surviving. In Old Amersham is an early 19th century maltings constructed of brick and flint, with two kilns survives. Another early 19th century example is to be found in Slapton (listed grade 2). It is constructed of brick and a kiln is said to survive in it. Two further 19th century examples, one early and one mid century, both listed grade 2 are to be found in Olney. Both are constructed of stone and brick with slate roofs.

The majority of Buckinghamshire's maltings were built of brick or stone and had originally tile roofs and more recently slate.

Malthouses in Cambridgeshire and Huntingdonshire.

Cambridgeshire, now including Huntingdonshire, is not now thought of as a "malting county". Despite this, the production of malt was of considerable importance in the county in the 18th century, although barley was also exported to the important malting centres in Hertfordshire and Essex. In the early 19th century the southern parts of the county produced fine barley, and the main towns where malting was important were Cambridge itself, Newmarket (now Suffolk), Royston (partly in Hertfordshire), Huntingdon, Kimbolton, and St Neots, and St Ives.

The earliest historical evidence for Cambridgeshire's (and Huntingdonshire's) malting industry is in the 16th century but the earliest surviving malthouses date from the early 17th century. The earliest example is at Bassingbourn cum Kneesworth (listed grade 2) where there is said to be an original kiln of 1700. The malthouse is timber framed with weather boarding as well as some early brick work. The roof is of tile and of a later date, slate. Another early example is at Fulbourn (listed grade 2). It is a timber framed building, mainly single storey but with some two storey sections dating to the 17th century. Other 17th century buildings listed as malthouses are simply buildings with that name.

Rather more examples survive from the 18th century, although again it is often just the name which indicates the former use of the site. An unusual example is to be found at Burwell where the large malthouse was built of clunch and has a thatched roof. The kiln perhaps fortunately has a tile roof. A late 18th/early 19th century example survives in Cambridge on Newnham Road/ Maltings Lane with a conical kiln (listed grade 2). However the kiln part of the maltings was substantially reconstructed in the 1909 when it was converted to residential accommodation. The section of the building in Maltings Lane with its regularly spaced windows is more reminiscent of a malthouse. Interesting circular kilns survive at St Neots, off Priory Road and in Godmanchester, Pinfold Lane (listed grade 2). At the latter a complete kiln did survive, but the building has now been converted to offices.

Fewer malthouses seem to survive from the 19th century, perhaps reflecting a gradual decline in the importance of the malting industry in the county. However a very good example survived complete (until 1996) with kiln at Burghley Park (listed grade 2). It is of an early to mid 19th century date and had its steep at the opposite end to the kiln. The kiln included a complete furnace with brick super structure to support the perforated tile floor.

Mid to later 19th century examples are to be found at Ely, where two brick built examples survive. The one by the river has been well converted to a concert hall. In St Neots, in Bedford Street, was Paine's Maltings, a substantial red brick building of three storeys with a square kiln. It was working until at least the late 1970s producing the malt required by Paine's Brewery. Late and large maltings usually but not always designed to take advantage of rail access were to be found at Peterborough and a good recognisable example is to be found at Ditton, on the outskirts of Cambridge. It was built of brick in the 1890s for the Commercial Brewery. It has been successfully converted in that it retains its kilns and regularly fenestrated elevations.

Apart from early examples, Cambridgeshire's malthouses are constructed of brick with tile and later slate roofs. Early examples are timber framed, and as indicated by the example at Burwell probably had thatched roofs which helps to explain why so few early examples survive.

Malthouses in Cheshire

The production of malt never seems to be of importance in Cheshire where the main agricultural activity was cattle farming. A small acreage of barley was grown but it seems to have been mainly used for animal feed. However, Cheshire, is well served by navigable waterways, in particular the Manchester Ship Canal, and this is one of the few areas where maltings of any size were constructed. The waterway enabled the raw material of barley to be shipped in and then converted into malt and shipped out to breweries in the nearby large industrial towns.

Perhaps not surprisingly the earliest references to the industry are early 19th century. Pigot's Directory for 1822 shows that there were eight maltsters in the county. By the end of the century there were just four maltsters noted in Kelly's directory, two at Warrington, one at Macclesfield and one at Weston near Crewe.

Therefore it is not surprising that there are few, identifiable malthouses now surviving, although the industry did survive into the 20th century. The best surviving example is to be found at Warrington, at Wilderspool Causeway and part of what was later Greenall Whitley's brewery. It was built around the middle of the 19th century, of brick with a slate roof. Towards the end of the 19th century several malthouses were built along the Manchester Ship Canal.

Although, few malthouses survive or appear to have been built, it is worth noting that a number of corn mills had drying kilns. These were little different from malt kilns, and they may have served a dual purpose. The few malthouses that were built were constructed of brick with slate roofs.

Number of listed malthouses in the county: 0

Malthouses in Cornwall

Cornwall is not known as a malting county but like so many other such counties there is evidence of malt production and trade from at least the 17th century. Malt would have been produced from locally grown grain, that on the banks of the river Camel was considered particularly good. Although the location of Cornwall and the extent of its maritime trade meant that grain could easily have been imported, and any surplus malt exported, it seems unlikely that this was the case. Few towns and villages had more than one or two maltings at the most. Truro was an exception with six in 1830. Most malt was produced for the local breweries, the largest of which were at Redruth and Truro, although these also tended to have their own maltings.

The earliest malthouses appear to be of a 17th century date, or at least the building they are in or attached to is of that date. Whether the malthouse was also of that date is questionable. Examples of malthouses attributed to the 17th century include one at Rosecare Farmhouse South in St Gennys parish. Likewise the one attached to the 17th century Slades House Country Inn at Sladesbridge is probably of a later date. In both these examples there appears to be little to distinguish the buildings as malthouses.

Even with 19th century malthouses it is often just the name which now survives to indicate the former use of the site. A possible 19th century building is that at Crantock built of granite rubble with a slate roof. Another rubble (Killas) built malthouse is to be found at Walsingham Place, Truro. It has a Delabole slate roof and has three floors, the bottom of which is a basement. A pyramidal roof survives and the building is listed grade 2. Another malthouse in Truro is to be found to the rear of Pydar Street. Perhaps these are two of those mentioned in Pigot's 1830s Directory?

Hardly surprisingly, Cornish malthouses are neither large nor architect designed. Rather they tend to be built of granite rubble with slate roofs, and are essentially vernacular buildings, although the slate for the roofs may be from the important Delabole Quarry.

Malthouses in Cumbria (Cumberland and Westmoreland)

The old counties of Cumberland and Westmoreland were not malting counties. There is evidence that some barley was grown for local use, but it is hardly surprising that there are few references to malting before the 18th century, and no detailed information until the 19th century. In the 18th century, for example, there is reference to William Jennings being in business as a maltster in Lorton. By 1829 there were 4 maltsters in the town of Cockermouth, but by the end of the century there were just 5 maltsters noted in Kelly's directory. Kendal, however, was an important malting centre in the first half of the 19th century with between seven and eleven maltsters listed in the trades directories, with the last one being mentioned in 1906. Kirkby Lonsdale and Kirkby Stephen had three each but the most long lasting malting centre was Milnthorpe. There were two maltsters there in 1834 and in 1848, but unlike most of the other towns George Newsham operated there until 1938, according to Kelly's Trade Directory.

Several towns had their own breweries, but it was only the large urban areas such as Carlisle which had a substantial number. Some of these breweries, notably at Carlisle and Cockermouth and Workington did have their own maltings.

The earliest surviving malthouses are 18th century examples. The best is that at Penrith (Stricklandgate) (Listed Grade II) which also has its kiln surviving. 19th century examples include one at Carlisle (Listed Grade II), one at Aldingham (listed Grade II) used as the village hall and with a surviving kiln, and another which was part of the Workington Brewery, and one at Caldbeck which also had a brewery and a mill on the site. Both are listed Grade II. A malthouse was built for Jennings Cockermouth Brewery in 1889. It is no longer used as such.

It is worth noting, however, that a number of corn mills had corn drying kilns. These are little different from malt kilns, especially the early ones. Such kilns may have served a dual purpose.

Cumbria malthouses tend to be built of the stone to be found in their locality and roofs tend to be of slate.

Malthouses in Derbyshire

Derbyshire is not now known as a "malting county", but the production of malt was important, notably in Derby itself and in particular during the 18th century. Much of this malt was sent northwestwards to Cheshire and Lancashire. One particularly important development in the county was the use of coke for kilning malt in Derby as early as 1643, and as a result Derby malt became famous all over the country. The coke came from Smalley, Heanor and Denby.

The earliest historical references to a malting industry in the county date from the 17th century, with 76 malthouses in the city of Derby in 1693. Derby remained an important malting town in the 18th century and by the 19th century other towns had a number of malthouses: Alfreton with about eleven, Chesterfield, with about ten, and Ashbourne with about six. Derby's last malthouse was built in 1907, but the last to work was Peach's at Langwith which closed in 1991.

Despite the importance of Derby as a malting town in the 17th century, the earliest known malthouse in the county is that at Church Close, Melbourne. The original building was a 14th or 15th century building, reputed to have been a tithe barn, although more recent research indicates that it was simply a barn or other agricultural building. A malthouse was inserted into this stone building in the 17th century. The kiln furnace, which has been destroyed, was reconstructed in the late 18th or early 19th century, but some 17th century features do survive, notably the exterior walls of the kiln. In Derby itself all but one of the surviving malthouses is of a 19th century. The exception is that in Bold Lane which was a two storey building, converted to a theatre in 1773!

Derbyshire's 18th century malthouses include one at Little Eaton and one at Mill Street, Stoney Middleton, both constructed of coursed gritstone and another stone built example at The Cliff, Matlock. Brick built 18th century malthouses include one at 23 Church Street, Ashbourne, and a relatively a large malting at Shardlow dated to 1799, adjoining the Malt Shovel public house. By the later 19th century large brick malthouses were being built mainly for breweries and occasionally for independent maltsters. A good example of the latter was the rural example at Upper Langwith, now demolished. It was completed for W & S Burkitt in 1876. An earlier but not so recognisable example is in Derby itself on Foreman Street. It was built in the 1840s but was later converted to a box making works with large windows. A better and clearly recognisable malthouse example belonged to Stretton's Brewery between Manchester Street and Ashbourne Road and is probably the one described as newly built in 1907. It is a substantial red brick and slate building of 5/6 storeys. There is decorative blue and red brickwork above the windows. The top floors are in the roof space and have dormer windows. At the eastern end is a very impressive lucam. The kilns were at the western end.

The buildings themselves fall into two broad types, stone built malthouses which tend to be earlier and found in the villages and small towns, especially in the more upland areas of the county, and brick built ones, usually of a later date, and found in the large towns or where a maltings was built on a commercial as opposed to a domestic scale, for example at Upper Langwith. The types of malthouse found in Derbyshire include two storey, Ware and multistorey.

Malthouses in Devon

Although not a "malting county", the production of malt in Devon was important and probably wide spread from the post medieval period until the later nineteenth century. Local needs were supplied, but much was also exported. Some barley was produced in the county. At the end of the 18th century with the best areas were West Devon and South Hams, but by the early 19th century, North Devon was an important barley producing area. It is not known how much was used in the production of malt. There was a steady decline in the number of malthouses throughout the 20th century but unlike the majority of counties, one maltings kept going to the end of the century, and continues to produce floor made malt in the 21st century. Tuckers at Newton Abbot not only remains a successful floor maltings but is open to the public.

The earliest references to malthouse are in the 16th century, and by the 18th century there were malthouses in a number of towns and villages in the county, notably in Bideford, Dodbrook, Moreton Hampstead, Morwellham, Sheepwash, Stokenham, Tavistock, Tiverton, Topsham, and Woodbury. In 1830 there was a surprisingly large number of maltsters in the county, Barnstaple having 27, Exeter 15, Modbury 12, Kingsbridge 9 and Crediton 8. Towards the end of 19th century there was a decline in the malting industry.

As is often the case an early malthouse either survives in name only or has been inserted into an earlier building. Thus several malthouses appear to survive from the 16th century onwards. A possible early malthouse is that at Russels, Fore Street, Holcome Rogus (listed grade 2), but no typical features survive. Another 17th century malthouse is to be found in Drake Road, Tavistock (listed grade 2). Other early malthouses do survive.

Two malthouses attributed to the 18th century survive in Hartland, both listed grade 2. That to the east of Titchbury Farmhouse is said to retain many of its malting features. Another late 18th century malthouse is that forming part of the Bridge Inn at Topsham where an early kiln survives.

Some buildings were re-used as maltings, for example at Haven Banks where the 19th century malthouse was inserted into an 18th century building. In St Bartholomew Street West, Exeter, a malthouse with a distinctive conical kiln survives. A 19th century rural example is that at Coryton (Listed Grade II). It is built of stone and retains its kiln despite conversion to a house.

At least one new malthouse was built in the twentieth century, at Teign Road, Newton Abbot (Listed Grade II), for Edwin Tucker. It was designed by the well-known firm of William Bradford and it is still used as a floor maltings. The layout is of the multi-storey type, except that there are in fact two houses, end to end, with the two sets of kilns in the middle. The steeping tanks are cast iron hopper bottomed ones, and the growing floors are of cement screed. Gas burners are now used in the kilns which have wedge wire floors.

Devon's malthouses are usually constructed of whatever materials were available locally. Thus many malthouses were constructed of stone and had slate roofs. This included architect designed malthouse such as Tuckers. However, in Exeter and Topsham where brick was the more common building material, malthouses were brick built. Early ones in non stone areas might be timber- framed.

Malthouses in Dorset

Perhaps surprisingly Dorset is a "malting county", and the production of malt was of considerable importance in the county. In the 16th century malt was being exported from Dorset (Poole) to Ireland. By the 18th century, the return cargo was Welsh coal which was much used for the kilning of the malt. By the early 19th century malt was being exported to Portsmouth and to London, the former no doubt for naval brewing! Certainly in the earlier 19th century the barley crop was an important one in the county, and much of malt produced was used in the county's brewers. However, Burton brewers were particularly fond of Dorset barley.

As already indicated a trade in malt had been established by the 16th century. By the early 19th century malt was produced in major towns, including Blandford, Dorchester, Shaftesbury, Sherborne and Weymouth, and other towns and villages had one or two maltsters.

Early, 18th century malthouses do not survive in great number and those buildings which are so named are often just that - the name only. Some good late 18th or early 19th century examples do survive, the best probably being that at Chetnole/Yetminster. The malthouse is attached to Hamlet House Farm, and is built of stone and has a thatched roof. Internally its steep, growing floors kiln furnace and drying floor survive as well as barley and malt storage bins. It deserves its II* listing. Another nice stone built example, albeit now converted is at Nottington Lane, Nottington, also listed grade II. A rather surprising survival, if the list description is correct, is that to be found in Throop Road, Bournemouth (Listed Grade II). It is said to be an early maltings, built of brick with kiln furnaces surviving.

A number of brewery malthouses still survive, most notably in Dorchester and Weymouth. That at Dorchester was designed by G.R. Crickmay for Eldridge Pope. G.R. Crickmay also designed two in Weymouth, Malthouse No 2 in Spring Road for the brewers, Devenish, and Malthouse No 4 in Hope Square for Groves Brewers. All are listed Grade 2, except for No 4 Malthouse which is II* because it contained the only known example of Last's patent ventilators. All these maltings are brick built and the two in Weymouth were intact until their recent conversion. Malthouse No 4 does retain a complete kiln with furnace and drying floor. It should also be noted that there were two other brewery maltings in Weymouth, Devenish No 1, also off Hope square and built of dressed Portland stone (Listed grade II), and No 3 Malthouse another stone building but of coursed rubble and only the kiln and malt store of which survive. Other brewery maltings survive at West Bay Road, Bridport, part of Bridport Brewery, and Hall's Brewery malting at Lower Ansty, Hilton. Another example is to be found at Durweston.

Dorset's malthouses include both large architect designed and brick built maltings and the rural vernacular farm malthouses constructed of local building materials, usually stone, but even some of the large malthouses, such as Weymouth Nos 1 and 3 are stone built. The main roofing material is slate but it is worth noting that thatch survive on at least one building, and must once have been common.

Malthouses in Durham

Durham cannot be said to be a "malting county", nevertheless the production of beer was important for consumption in an essentially industrial, mining community. Some barley was grown in the central and eastern parts of the county but harvesting could be difficult, and there is no indication as to whether it was used in local malt production. Furthermore the county's breweries were keen to invest in pneumatic maltings at an early date.

By the 19th century the main towns where malt was produced were Darlington, Durham, Houghton-Le-Spring, and Stockton-upon-Tees, although a number of villages and the smaller towns had one or two maltsters, probably to provide malt for the local breweries. It is worth noting that in West Hartlepool that Cameron's Lion Brewery was founded by a local farmer, no doubt he produced his own barley for malting and then brewing into beer in his own brewery. Cameron's maltings, substantial red brick buildings, were to be found between Marske Street and Blakelock Street.

Historical details survive on Nimmo's Castle Eden Brewery and its maltings. The maltings were certainly in existence by 1855, and then in 1870 a new maltings was completed. As space was at a premium, it was decided in 1954 that a Saladin Box should be installed, and this came into production the following year, in May 1955. In December there was a serious fire which resulted in the loss of the original floor maltings building. A new maltings, type not specified was built. Malting ceased on the site in 1966 but it was not until the late 1980s that the upper part of the Saladin plant was demolished.

Further maltings at in Middlesborough Road, Thornaby on Tees were in use by the 1890s although they were sold in 1907 to North Eastern Breweries Ltd. It is also worth noting that the malting establishment, J.P Simpson (Alnwick) Ltd were producing malt at Darlington (Neasham Road) by 1890. Although most malting companies continued malting in older, 19th century premises, a couple of firms started at new addresses. One such example, Simpsons of Alnwick who are recorded at the Corn Exchange, High Street, Stockton in 1934. This was probably not a maltings but an office address. Likewise, the St John's Malting Co Ltd started in up in Lombard Street. However, Vaux's Brewery in Sunderland invested in pneumatic maltings on at least two occasions, as did Cameron's Brewery in Hartlepool.

There is an early 19th century maltings at Barnard Castle in Newgate (Listed Grade 2). It is a stone building with a slate roof, but no kiln survives. Malthouses of a 19th century date also survived at Castle Eden Brewery, and the Houghton-Le-Spring Brewery site, where the malthouse is constructed of magnesium limestone with sandstone quoins and sills. The kiln survives as well as does that at the Mill Dam Brewery, South Shields.

The buildings used in the construction of the county's surviving maltings are primarily stone, sandstone or magnesium limestone, but some were also constructed of brick. The main roofing material was slate. There is little evidence for corn drying kilns attached to mills in County Durham, nor for associated maltings as is the case in the adjacent county of Northumberland.

Number of listed malthouses in the county: 2 (includes 1 in Tyne and Wear)

Malthouses in Essex

Essex is a "malting county". It has good barley growing lands, especially in Tendring hundred, and excellent facilities for transporting the malt to London, either by the inland route of the river Lea Navigation or by sea and up the Thames. It should be noted that Essex was also a hop growing county and early kilns could have been for either malt or hops, so distinguishing their original use now can be difficult.

The first references to a malting industry are from the 16th century onwards. By the 18th century. Chipping Ongar, Hatfield Broad-Oak, Epping and Roding were known for their production of good malt. By the 19th century, the trades directories provide good details on the extent of the malting industry in the county with many villages and smaller towns having one or two maltsters. Essex had the first pneumatic drum malting at Sheering and although the county's floor malting industry ceased in the 1970s, the production of malt continued at two sites, Mistley and Witham until the end of the 20th century. Also Edme, at Mistley continued to produce malt extract.

Malthouses were built from the 16th century onwards, although commonly it is now only the name which survives. However, the earliest surviving malthouse in the county does date from the 16th century. That at Boyes Croft Great Dunmow is a timber framed malthouse of 16th century date. It has two floors and the steep and kiln survive. The steep appears to be of a later date than the main body of the building and was probably an 18th century addition. The kiln is also a latter addition and is of an early 19th century date. The furnace and woven wire drying floor survive. The kiln was originally designed to produce brown malt but was later adapted to produce ordinary pale malt.

These earlier malthouses were of a relatively small size, but at the beginning of the 19th century, Mistley saw the growth of at least eight large malthouses at The Walls. They were built for Edward Norman, and were essentially of two floors, a ground and an upper floor, although some had a loft floor and one, Malthouse, No 2 was raised to four floors. Steeps survived in some and so did some kiln furnaces. Only three now remain and they are converted. A later development, at the end of the 19th century and the beginning of the 20th century was a development of malthouses at the other end of Mistley, at the Quay. Here Messrs Free Rodwell built huge malthouses of up to eight storeys. They had hopper bottomed steeps and massive kilns some of which were made up to Free's patent. Nos 1 and 7 had barley kilns but perhaps surprisingly the others did not. These malthouses were deigned to use imported Californian barley and in consequence had extensive grain cleaning facilities. Only one, malthouse No 2 is now in use by Edme. These malthouses at Mistley were some of the most important in the country, representing two developmental phases in the malting industry.

Despite this there are malthouses of importance and interest in the county. Already mentioned is the first pneumatic drum malting built in 1896 at Sheering on the Hertfordshire border, and next to it a large floor malting!

Early malthouses in Essex are timber framed, whereas later examples are built of brick. The later roofing material is slate whereas the early roofs are tile which probably originally replaced thatch. Most kiln roofs are pyramidal but there are a number of conical ones which are particularly associated with the production of brown malt.

Malthouses in Gloucestershire

Gloucestershire is not known as a "malting county", yet has the highest number of listed malthouses of any county. Thus the production of malt was important and probably wide spread from the post medieval period until the later nineteenth century. Barley was produced in the Cotswolds and in the Severn Vale, but very little was grown in the Forest of Dean, so had to be imported from Herefordshire in the 19th century. Thus, local barley supplied the local malt needs and therefore local brewing needs, but from the 17th century malt was also exported down the river Severn to the prosperous city of Bristol, and later to the increasingly industrialised and coal producing regions of South Wales.

Historical references show that in the late 16th century maltsters were men of importance in the City of Gloucester, and that malting was an important industry in Tewkesbury where there were 25 maltsters. The impact of the industry on the latter town can be judged by the fact that in 1608 the borough made a law to deal with the waste from malthouses, the majority of which were grouped in the High Street, adjacent to the Quay. The importance of the malting industry, in Tewkesbury in particular, but also in the county as a whole, continued into the 18th century. The 19th century, however, saw a gradual decline in the towns of Cheltenham, Gloucester, and Tewkesbury and the county as a whole. Even so some new malthouses were built in the 19th century. In the early 1800s a number of small and medium sized malthouses were built, but those constructed towards the end of the century were predominantly large commercial establishments. Malting continued well into the 20th century on both a large scale (Merchants Road, Gloucester, ceased malting in 1984) and small scale (Brockhampton, ceased malting in 1939). The majority of the surviving malthouses date from the later periods.

Although it was in the urban areas that most early malthouses were recorded, it is where there are now least. Substantial urban development has largely removed all trace of them. It also has to be said that maltings were regularly inserted into earlier buildings, so dating them accurately is difficult. There are a number of early buildings which had a maltings in them at some stage in their history, and these include: Winchcombe Abbey, a c.15th century building; and of the same period one in Mill Street, Tewkesbury, and one at Brockweir, Hewelesfield. The same problem applies to the later centuries, although by the 17th century some malthouses can with more certainty be attributed to that period. These include the malthouse at Seymour House in Chipping Campden, one in Barton Street, Tewkesbury, and probably the malthouse attached to Church Farm, Littledean, in the Forest of Dean. Likewise more definitely original malthouses survive from both the 18th and 19th centuries. Good 18th century examples include Brockhampton and Frampton on Severn, built of stone and brick respectively and both listed. Small 19th century examples include Wightfield Manor Farm, Deerhurst which has a date stone of 1816 on it, and a slightly later one is in Malthouse Lane, Winchcombe. Later and larger 19th century examples include two in Gloucester, Fox's in the Docks, and High Orchard and Merchants Road, one at Stroud, Salmon Springs, and one in Mitcheldean, part of the brewery.

The earliest surviving malthouse are generally built of stone, although the 17th and 18th century Tewkesbury examples are timber-framed. The building materials tend to reflect the location of the malthouses. Those in the Cotswolds and the Forest are stone built, whereas those in the Severn Vale are brick built. The current roof materials are slate, or tile, although stone was used in the Cotswolds. There is a predominance of Newark type malthouses in the county, especially amongst the earlier stone examples. Later malthouses tended to be multi-storey types.

Number of listed malthouses in the county: 53 (includes those formerly in Avon (South Glos).)

Malthouses in Hampshire

The production of malt was important in Hampshire although the county is not thought of as a "malting county". The production of malt was important and probably wide spread from the post medieval period until the later 19th century, and it was an important export product. Hampshire was a county which produced good crops of barley from at least the early 19th century, when great quantities of malt were made throughout the county. There is evidence for the 17th century which indicates that the production of malt was important in the towns of Andover, Basingstoke, and Havant. By the 18th century Havant was still important for the production of malt, much of which was exported to Ireland. Southampton and Portsmouth also produced malt. By the 19th century the main malt producing towns were Andover, Basingstoke, Fareham, Havant, Portsea, Romsey and Winchester, although there was a gradual reduction in production throughout the century.

Although a number of buildings purport to be 16th century malthouses, they are often later insertions into an earlier building or it is just the name which survives. One such example is at Greywell Street, Greywell. Here the house of a 16th century date but the present maltings is almost certainly 19th century (Listed Grade II). Rather more 18th century maltings survive, but again the actual malting is either a later insert into an earlier building or a 19th century extension, or the malting is no longer a distinguishable part of the building.

A number of 19th century malthouses do survive. These vary from the relatively small rural ones such as at Upper Froyle (Listed Grade II), or that in Church Street, St Mary Bourne, which was a brewery maltings to large urban examples. One such is that in Turk Street, Alton (Listed Grade II). This is a particularly interesting example because it is single storeyed with a loft and has a wooden shingle roof. It is perhaps worth noting that Alton had a number of maltings at one time, large brick structures, most of which have now been demolished. Another town with a maltings which still survives is Romsey where the Romsey Brewery's maltings (listed grade II) are due for conversion. The last mentioned maltings has lost many of its internal features but the hot air chamber beneath the kiln drying floor survived and is of a particularly interesting and unusual pattern, being a central dome with radiating arms with ventilation holes the size of a brick along them.

The majority of the county's malthouses are brick buildings, although it is worth noting that some of the earlier examples of an 18th century date or earlier were sometimes constructed of flint with brick dressings, an example of which survives at Heathman Street Nether Wallop (Listed Grade II). It belonged to the Trout Brewery.

Number of listed malthouses in the county: 35 (includes three on the Isle of Wight)

Malthouses in Herefordshire

Herefordshire is another non "malting county", and better known for hops than barley, but there is evidence of a malting industry from at least the 17th century. There is the added problem that being a hop county, it is sometimes difficult to determine whether a kiln was for hops or malt, and sometimes one kiln would be used for both either at different times, or even at the same time in its history.

The earliest references to malt are in the first half of the 17th century with a reference to a malthouse at Buttas manor. By the 19th century there are a few more references and it would appear that Bromyard had a substantial malting industry, and a number of the inns (at least seven) in Hereford had their own malthouses, but this was small scale production when compared with other counties. The one large scale example was at Ross-on-Wye.

Two early examples are to be found at Rockyfold, and Hanley William. At Rockyfold, the farmhouse is 16th or early 17th century with a small malt kiln attached which is said to retain its perforated tile drying floor. The malthouses at Newhouse Farm, Hanley William is said to be 17th century in origin. Both are listed grade 2. More often it is just the name which indicates a site's former use. At Hope-under-Dinsmore there is an 18th century maltings which is reputedly complete. (Listed Grade II) It is a sandstone rubble building, forming part of the farm complex. In Bromyard, to the rear of 3 Broad Street, is an 18th century malthouse. A dual complex of malthouse and hop kilns of 18th century date is to be found at Lower Farm House, Eastham (Listed Grade II). Likewise 19th century buildings were often dual purpose. A notable exception being the large purpose built brewery maltings was constructed in Henry Street / Station Road, Ross-on-Wye (Listed Grade II) in 1870 - 80. It was the maltings for the Alton Court Brewery. It has been converted to a supermarket, and all its internal features have been removed.

The main building materials were those locally available and include both brick and stone, as well as some timber framing. Roofs are tile or later on slate.

Number of listed malthouses in the county: 8

Malthouses in Hertfordshire

Hertfordshire has long been an important "malting county". In the first quarter of the 18th century Royston and Ware were important malting towns according to Defoe. He does not enumerate the other important malt producing towns but he does refer to the fact that Hertfordshire malt was considered the best in England. Although Hertfordshire produced large quantities of malting barley, the counties around it also produced excellent malting barley, which was often sent to Hertfordshire towns for making into malt. The proximity of the county to London was of prime importance. Initially road transport was used but later water was used and the rivers Stort and Lea were made navigable, the latter as early as the mid 16th century. Bishops Stortford, Hertford, Royston, and Ware were the main malting centres from the 18th century onwards. In Ware, the area between the High Street and the navigation was the most important.

The buildings stated to be malthouses of a 16th or 17th century date rarely survive intact and it is really just the name that indicates the site's former use. One of the few examples which may be of an early date is that at the Elms, Stevenage Road, Little Wymondley (Listed Grade II). Relatively few malthouses which can be attributed with certainty to the 18th century survive. One example is behind no 27 Hockerill Street Bishops Stortford (Listed Grade II). It is a brick built two storey building with two conical kilns. Almost certainly some of those in Ware between the High Street and the navigation are of this date.

Examples dating from the 19th century survive rather better. On the eastern side of the county, at its border with Essex, is Sawbridgeworth where a number of extensive maltings still survive. They are located on the western side of the railway line and to the south of the main road. The most northerly block appears to have been extended as required, but there is a one maltings which is a complete entity with barley store, growing floors and kiln and malt store. All the buildings have now been re-used but some of the original features, like the slender cast iron columns do survive. There is a date stone on the buildings which were operated by the wellknown malting firm of H.A & D. Taylor. Another town where a number of 19th century maltings still survive is Stansead Abbots and Stansted St Margaret. Although the majority of the 19th century maltings have now been converted to other uses, malting is still carried on at the main site owned by French and Jupps. Some of the kiln cowls do survive. All these maltings are listed grade II. However, it is in the town of Ware that most 19th century maltings survive. One group is at Kibes Lane where there are three maltings of three storeys each with conical kilns. They are listed grade II. Another impressive group is to be found on the south side of Watton Road. There are four blocks, three with tiled conical kilns and one with a square kiln. Nearby is a brewery building. The group are listed, each building individually, grade II. Other towns and villages with surviving 19th century maltings surviving are Bishops Stortford and Hertford, with several good examples, and Furneux Pelham, and Kings Langley. One other town which deserves mention as an important malting centre is Baldock. The last large one to operate was on Royston Road and was demolished in 1991/2. Constructed of yellow brick, its kilns fronted the railway.

Malting continued in the county well into the 20th century in many floor maltings, and French and Jupps still produce malt but in drums.

Most of the surviving maltings are built of brick, often London Stock Brick, with tile or slate roofs. Early maltings were timber framed.

Malthouses in Kent

Kent, despite its proximity to London, is not a "malting county", rather it is known for the production of hops. In consequence it can be difficult to determine whether a kiln without associated structures is a hop kiln or a malt kiln. It may even have been used for both at some stage in its history. Kent was however an important malting barley growing county. The district of Walmer was a particularly good barley growing area, and in Thanet it was the staple crop. By the beginning of the 20th century the Kentish malting barleys were considered to be of very fine quality but were mainly sold locally. Although much of the malt was for use in local breweries, a fair amount was also transported to London for the breweries there.

The earliest references is to a malthouse at Lower Street in Maidstone in 1650. The trade directories provide most evidence for the later periods, the 18th and 19th centuries. A number of villages and smaller towns had one or two maltsters. Both Ashford and Dover had large malthouses. Other malting towns were Deal and Mongeham.

A malthouse in Canterbury Road at Brabourne (Listed Grade II) is said to be of a 17th century date and is constructed of brick. A hop kiln was added in the 19th century. Several 18th century examples survive. One being at Otham Street, Otham (Listed Grade II), where the malthouse was converted to a hop kiln in the 19th century. However, one of the best 18th century maltings is to be found in The Street at Boxley (Listed Grade II). It was built as a maltings but later it was used as an oast house. The building is interesting in that it is built of brick on the ground floor with ashlar chalk on the first floor. The first kiln is in the corner of the L, with a second later kiln at the top end of the L. Internally the steep still survives. The existing kiln was a hop kiln because the wire floor is not sufficiently robust to take the weight of wet grain. Another 18th century example is to be found in Easole Street, Nonington where the malthouse is dated to 1704. The kiln and cowl survive.

For the 19th century a number of maltings still survive. A large malting survived in the High Street, Hadlow (Listed Grade II) until 1988 when the complex was converted to flats. Likewise a large brewery malting at Fremlin's Brewery, Faversham (Listed grade II) survived until 1996 when it was converted to a supermarket. Until then the flat bottomed cast iron steep survived. It is worth noting that both Hadlow and Faversham had other maltings. In Hadlow there was a large complex in Court Lane built as part of Simmons brewery complex. At Faversham there was another maltings at Preston which had splendid kilns, but this too has been converted, to housing. Another converted malthouse is to be found West Street in West Malling (Listed Grade II). Two conical kilns survive. Malthouses also survive in Canterbury, one being at Oaten Hill Place. It is a two storey red brick building. Another one is to be found in the St Stephens area of the town. Finally, a rather surprising example is to be found at Perry Court Farm, Brogdale Road, Faversham (Listed Grade II). It is securely documented to 1904 and is constructed of brick. It also had a hop kiln attached.

Kent's malthouses are generally of brick with tile roofs and later slate, however, some were built of stone, and no doubt early ones would have been timber framed.

Malthouses in Lancashire (includes Liverpool, Manchester and Furness - historically)

Lancashire is not a "malting county". Despite this there is a surprising amount of evidence for malt production and trade. Warrington had an important malt trade in the mid to late 18th century, and there was a trade in both barley and malt in the early 19th century. It is worth noting, however, that barley was sent to Dalton and Ulverston for malting and that in 1807, 3551 quarters (541.31 tonnes) of malt and 794 quarters (161.38 tonnes) of barley were exported from Ulverston, and between 1806 and 1809, 9291 quarters (1416.31 tonnes) of malt and 4030 quarters (819.11 tonnes) of barley were exported to the port of Preston. Smaller quantities were sent to Poulton. It should also be noted that even by the early 19th century Liverpool and Manchester had a substantial number of malt factors and merchants but no recorded maltsters indicating that the brewers' need for malt was satisfied not by local production but by import. Barley remained an important crop in the Hawsfield Urswick area of the Furness Plain, and near Dalton even in the 1840s. Also, Lancashire did benefit from the Manchester Ship Canal. This meant that barley for malting could easily be brought into the malthouses along the canal, and it meant that the malt could equally easily be taken to the breweries in industrial Lancashire. By the end of the 19th century there were some 25 maltsters noted in Kelly's directory.

As for the buildings, relatively few survive as recognisable examples. An 18th century example survives as a brewery malting in Lancaster, and others would have been required for the county's substantial brewing industry. Towns such as Blackburn and Burnley, both large industrial towns had a substantial number whereas places like Accrington might have only one or two. It is worth noting, however that Lancaster, Ormskirk, and in particular Preston had large numbers of breweries. One listed (Grade II) example is to be found at Borwick Lodge, Borwick Road, Borwick. It is a sandstone building and was originally of two storeys but is now only one. It is much altered. It is worth noting, however, that a number of corn mills had corn drying kilns. These are little different from malt kilns, especially the early ones. Such kilns may have served a dual purpose, although as already indicated there is now no record.

The building materials would have been whatever was locally available, stone or brick with initially tile and later slate roofs.

Number of listed malthouses in the county: 5 (includes three on Merseyside)

Malthouses in Leicestershire and Rutland

Leicestershire is not usually considered a "malting county". However, there is no doubt that malt was produced in the county. Barley was grown in the county, and in particular malting barley was produced in the Ibstock area.

The earliest references indicate the existence of a malting industry in the county in the 17th century. By the 19th century the main malting town was Leicester. A number of villages and smaller towns had one or two maltsters.

A good small rural or village example is to be found at Stathern. It is a two storey brick building with a kiln at the back. Another village example is to be found at Castle Donnington, in the High Street. According to the list description the maltings was inserted into an earlier barn, and the kiln survives. An interesting town maltings is to be found at Market Harborough, on Fairfield Road, where one of 1830s date is still recognisable as a malting (Listed Grade 2). No recognisable kiln survives but there is the remains of a steep in the cellar. Another malthouse of a slightly later date, the 1840s, is to be found by the canal in Loughborough.

There are the remains of a later 19th maltings on Great Bowden Road, Market Harborough where the kilns are still recognisable but the buildings are almost completely converted. Another large complex is to be found at Cavendish Bridge, on the borders of Derbyshire. Originally this was a brewery maltings but the site is now in various uses but the surviving kilns indicate its original purpose. A late 19th century example was to be found at Ketton. Constructed of rusticated stone and adjacent to the railway line it survive intact with its steep, growing floors, Robert Boby kiln furnace and perforated tile drying floor.

A number of smaller towns had their own malthouses, often associated with the local brewery. There is a brewery malting at Sileby, of a 19th century date but the independent maltings of Plunket Bros in Belle Vue have been demolished. The Rutland Brewery at Oakham had its own malthouse, advertised as a 12 quarter (1.82 tonnes) malting, in 1929. The malting was described as having three cement screed growing floors, a cistern, kiln and steam hoist. The maltings were demolished in 1980.

The majority of Leicestershire's and Rutland's malthouses are brick built with slate roofs. The exception is Ketton where rusticated stone was considered most appropriate for this village so near Stamford (Lincolnshire) and essentially an area with a high use of stone.

Malthouses in Lincolnshire

Lincolnshire is a "malting county". Despite this, early evidence of the industry is sparse, with the first references only being from the 17th century, with a particularly interesting one being that coke was being use in the drying of malt in 1696. Large quantities of malting barley were grown in the county both for local use and for export, for malting elsewhere, such as in Burton-upon-Trent to which there were rail connections. By the 18th and 19th centuries the main malting towns were Gainsborough, Grantham, Horncastle, Lincoln, Louth, and Stamford. A number of villages and smaller towns had one or two maltsters.

The first recognisable malthouses survive only from the 18th century with examples at Owston Ferry, where the kiln furnace but not the drying floor survives. Other examples include two at Market Deeping, one on Towngate Wharf, and one in Stamford Road. Both the buildings are listed grade II and both are built of coursed limestone rubble, although each has different detailing. Another example is to be found in West Deeping, in King Street, attached to an earlier building. It, like the other two examples, is of coursed limestone, and is listed grade II. A rather derelict, and sadly now incomplete, malthouse survives in Lincoln in Wigford Yard. The windows are the almost the only distinctive features but it does have a very good stone slate roof.

Substantially more malthouses survive from the 19th century, often urban examples, again in Market Deeping, but also in Market Rasen, in Serpentine Street. Both are listed grade II and that at Market Rasen is constructed of brick and is converted to housing. Other small malthouses probably of an early 19th century date are to be found at Snaith, and at Fenton.

One of the most important, but often little recognised, malting centres in the 19th century was Grantham and a number of examples of this date survive. Listed examples survive at Springfield Road, and Wharf Road. Also, Lincoln itself, Barnetby-le-Wold, Kirton-in-Lindsey were malting centres with large purpose built brick built maltings. The other important malting town was Gainsborough with examples still surviving on Lea Road, and until 1998 Pauls worked a Saladin box plant there. Their other sites in the county were at Louth and Grimsby. Both these deserve particular mention. The latter because it was the last floor malting to be built in 1952 and replaced Sanders massive war damaged floor maltings. The one at Louth because although built at the same time as that at Grimsby was a purpose built Saladin box plant a distinctive building if not immediately recognisable as a maltings.

However, the most noteworthy examples are to be found at Sleaford, next to the railway line. Here are eight brick built multi-storey maltings, designed by A Couchman for Bass. Construction began in 1892 but work was not completed until 1905. The site also has a central engine house to provide power in the maltings. The location of the maltings at Sleaford was ideal because it was half way between the barley growing lands of East Anglia and Bass's Brewery at Burton-on-Trent.

The county's surviving maltings are almost all built of brick with slate roofs, although the earlier examples such as Owston Ferry have tile roofs.

Number of listed malthouses in the county: 18 (includes three formerly in Humberside.)

Malthouses in Middlesex and London

It cannot be said that either London or Middlesex were great producers of malt, certainly in later years. Some barley may have been produced in the county of Middlesex which is now an essentially urban area. Nevertheless, there was a ready market for malt in London with its breweries and distilleries and there is plenty of evidence that there were substantial malt requirements, the majority of which would have been supplied from other counties such as Hertfordshire, Essex and Berkshire and Oxfordshire. Even so some evidence of a malting industry does survive.

In Middlesex there were maltings at Brentford and Chiswick, both linked to London by the Thames, but those towns also had their own breweries. There were also maltings at Hampton Wick, Staines, Twickenham, and West Drayton. In London itself there were maltings at, Rotherhithe, Bromley by Bow, Mile End. Pneumatic maltings were installed for the distillers Messrs Haig & Co at Hammersmith, and the New Lea Valley Distillery at Stratford, and for Young's Brewery. Of course a number of malting firms did have their head office in London.

Today, the only examples survive in Chiswick at Strand-on-the-Green and at Bromley-by-Bow where the maltings were for London's distilling industry.

The majority of maltings were probably of London stock brick with slate roofs.

Malthouses in Norfolk

Norfolk is a "malting county", and is one of the few counties where floor malt is still made, as well as malt by pneumatic plant. There are good barley growing lands in Norfolk resulting in an extensive malting industry, which was of particular importance in the second half of the 19th century with the development of the railways. Prior to then only those areas accessible by water had an extensive malting industry. Thus in the mid-18th century the two main markets for Norfolk, mainly Norwich, malt were London and Holland. The malt was exported via Great Yarmouth for which there is substantial evidence, and to a lesser extent from Wells-next-the-Sea, and Kings Lynn. The 19th century trades directories give some idea of the extent of the malting industry, in 1830 there were 93 maltsters and no doubt others who were not recorded. By 1888, this number had reduced to 65 but some firms had more that one maltings. The construction of floor maltings continued into the 20th century with F & G Smith's at Wells-next-the-Sea and their severely bomb damaged malting at Great Ryburgh was not rebuilt until 1962 when Saladin plant was installed. Subsequently more modern malting plants have been constructed for F & G. Smith and for Simpsons at Tivetshall St Margaret.

Although the earliest evidence for the industry dates from at least the 16th century, there are no malthouses which can be dated to this period and the earliest recognisable examples date to the 18th century. A good 18th century example is to be found in Diss, the Town Maltings on Shelfanger Road, (Listed Grade II) which were operated as a floor maltings by E.S. Beaven until May 1994. The maltings have a date stone for 1788, however, not all the buildings on this site are of this date. Another 18th century example is at Wymondham, to the rear of 22 Cock Street (Listed Grade II). It is constructed of brick in part, and clay lump. The roof is of pantiles except for the pyramidal kiln roof which is of slate. Another 18th century converted maltings survives in the High Street at Stoke Ferry (Listed Grade II). It is constructed of brick in part, but also clay lump, and carstone. The roof is of pantiles.

An early 19th century example the Letheringsett Brewery malthouse built in 1814, was surprisingly large for its rural location and the size of the brewery. It has two storeys with a loft and is built of flint with brick piers, and a pantile roof. The kiln elevation onto the road is adorned with a centenary clock, and was designed to be impressive and attractive as it faced the Cozens-Hardy's house.

The large and later 19th century maltings tend to be adjacent to railway lines for example at East Dereham and Thetford. But not all were, for example at Diss, where there were a number of maltings on both sides of Victoria Road. On the south side was E.S. Beaven's Maltings, converted from a granary and listed grade II, and another brick built set of two storeys with part slate and part pantile roofing. The kiln of the larger malting was at the eastern end of the building and that of the smaller malthouse which was at right angles at the western end at the southern end of the building. The maltings closed in May 1994. At East Dereham a good example which belonged to F & G Smith survives on Norwich Road. It is built of brick with the kilns at the southern end and then the malt store beyond. Although unused it is currently complete. The malthouse at Cley Road, Swaffham (Listed Grade II) deserves mention for its slate growing floor. A rare survival.

The 18th century examples were mainly built of local building materials, and therefore there is a wide variety including, brick, clunch, carstone and clay lump. In the 19th century, brick with slate roof maltings became more common.

Malthouses in Northamptonshire

Northamptonshire is not a "malting county", but like all counties there was some malt production. The earliest reference to the malting industry in the county is in the 17th century. By the 18th and 19th centuries the main malting towns were Daventry, Kettering, Northampton and Wellingborough. Of course a number of villages and smaller towns had one or two maltsters. Many of the maltings were attached to or associated with breweries.

Not surprisingly there are now relatively few malthouses now surviving. An early, probably late 18th century malthouse survives at Oundle, North Street (Listed Grade 2). It is clearly a malthouse, built of stone, although the steeping cistern and kiln have gone except for the internal cone shape. There are several other recognisable maltings in Oundle.

Brick examples are to be found in the industrial towns such as Northampton and Kettering, and are very definitely of a later 19th century date. The most decorative is that at Kettering, whereas two at Northampton, also built of brick are good robust brewery maltings. Both have undergone alterations and re-use, but their original use is clearly recognisable.

Northamptonshire's maltings are largely, but not exclusively brick built, as the earlier ones are sometimes of stone. Roofs are of slate, although early examples had tile roofs.

Number of listed malthouses in the county: 9

Malthouses in Northumberland

Northumberland cannot really be said to be a "malting county", although there were several maltings in the county, and Simpsons of Alnwick have their head quarters at Berwick-on-Tweed.

Both Alnmouth and Berwick upon Tweed were important grain ports and had a substantial number of granaries in the 18th century. Berwick, together with adjacent Tweedmouth remained an important grain port into the 19th and even the 20th century. Alnmouth, however, lost its importance in 1806 when a storm changed the course of the river and the port became silted up. Other granaries are to be found along the coastal strip between Newcastle and Berwick, but despite the grain trade there was a surprisingly limited malting industry. The location of some the county's maltings at sites accessible to coasting vessels indicates that at least some of the malt produced was for export. In the early 19th century the main towns where malt was produced were Alnwick, Morpeth, Newcastle-upon-Tyne and North Shields. Newcastle had by far the largest number of maltsters. A number of villages and smaller towns had one or two maltsters. The numbers reduced steadily during the 19th century, and by the end of the century the main malting centres were Alnwick, Berwick and Newcastle. Malting continued into the 20th century with Simpsons building a floor maltings at Tweedmouth Dock in 1904. Unfortunately it was burnt down in the 1930s. Other maltings, in Newcastle, operated into the 20th century. Much of the malt produced was for the county's brewing industry, in particular Newcastle.

Few early malthouses survive, but one example is a late 18th/early 19th century example at the Brewery (Listed Grade 2) at Tweedmouth, on the old A1. For the 19th century the most noteworthy surviving examples are to be found at Berwick, on Pier Road, and in Alnwick there is a good example on Dispensary Street (Listed Grade 2), and finally another good example is to be found at South Shields, Tanners Bank.

Perhaps surprisingly, small malthouses do not appear to be found on the large and substantial farms of Northumberland. The rural maltings were associated more with water mills. One example is to be found at Waren Mill. Part of the buildings are 18th century, but it would seem unlikely that malting was carried on at the site as early as that. A date stone records the history of the complex and refers to a fire in 1881. The building was restored in 1883 and by 1924 the maltings was complete. Whether this means that the malting was only a 20th century addition to an 18th/19th century mill is not clear. Other examples of mills with maltings attached are to be found at Felton, and Ford.

The main building material for Northumberland's maltings is the local sandstone. The malthouses were usually constructed of coursed rubble with dressed stones at the corners and sometimes substantial dressed stone cills and lintels to the windows. The roofing material of the later malthouses is slate, and prior to that pantiles. The malthouses are generally without embellishment.

Number of listed malthouses in the county: 4 (includes one in Tyne and Wear)

Malthouses in Nottinghamshire

Nottinghamshire is a "malting county". It was important for the growing of malting barley, and was fortunate in its transport links in that the river Trent which flows through much of the county provided a good trade route to Hull and beyond. Later the canals and railways also provided links in all directions. The finished product was also sent to neighbouring counties, including Derbyshire, and to Burton-on-Trent. In consequence malthouses were frequently located along the river Trent, and the county's canals, in particular, the Chesterfield Canal. The later passed through both Retford and Worksop, and later both of these towns later had maltings along the railway lines.

Unusually, the first reference to Nottinghamshire's malting industry dates from the 13th century, and relates to Nottingham's cave maltings some examples of which survive from this date. Later references include Nottingham's trade in malt in the 17th century, and by the 18th century Mansfield, Retford and Worksop were important malting centres, and had a substantial trade in malt. In the 19th century most of the county's towns and many of its villages had a malthouse. In 1878 England's first pneumatic, although not mechanical, malting was built at Beeston. The county remained an important malting county well into the 20th century with floor maltings operating in Mansfield and Worksop until 1975, in Newark until 1980 and in Beeston until 2000.

The earliest surviving maltings are in Nottingham's caves, but above ground examples only survive in a recognisable form from the 18th century. It has been suggested that the large stone built two story malthouse on Midworth Street Mansfield may date from the late 17th century, but it is more likely to be of a late 18th or even early 19th century date. It is a long low stone building of two ranges. The back range is clearly of a later date and includes the kilns which were at either end, although only one has the distinctive pyramidal cowl surviving. It was a two storey building, with the upper floor supported on slender cast iron columns. Other more certainly dated 18th century examples survive at Warsop and at Collingham where the brick built malthouse is clearly recognisable as such. Another brick example is to be found in Newark, at behind No 33 Northgate, where there is also a brewery. Another malthouse of a late 18th or early 19th century date is the one at Laneham, facing directly onto the river Trent.

Throughout the 19th century malthouses were built, usually on an ever larger scale. A number are worthy of particular comment. Firstly there are the two mass concrete maltings, one of which it thought to date from the 1860s, on Trentside at Newark. These are almost certainly the only mass concrete maltings in the country, and both were built as standard Newark pattern malthouses. Another large Newark pattern malthouse, but built of brick and now demolished was to be found at the junctions of Cliff Nook Lane and Sydney Street, Newark. It was a mirror image of the Trentside maltings. Another well preserved malthouse of an earlier date, 1864, formed part of Warwick and Richardson's Brewery on Northgate, Newark. Its steep and couch area, barley kiln and malt kilns are well preserved and good examples of a pre malt-tax malthouse. A number of malthouses survive in Nottingham itself, but the one at Beeston is particularly important as part was constructed in 1878 as a pneumatic malting. The building was part of the Beeston Brewery. In 1926 Shipstone's converted it to a floor malting It became their Malthouse No 4.

The building material of Nottinghamshire's malthouses is mainly brick, although some stone built examples do survive. The main roof materials were tile for the early examples and slate for later examples or where buildings have been re-roofed.

Malthouses in Oxfordshire

Oxfordshire is not known as a "malting county", but there is no doubt that malt production was important and widespread from the medieval period onwards. The earliest references to the industry are from the 13th century, when barley was grown primarily for making malt. It was often the prerogative of monastic houses, for example Abingdon Abbey. Geologically, the stone brash lands which extended from Witney to Burford, Chipping Norton, Chalbury and Woodchester were easily cultivated and were known for their sheep and barley. The main variety grown was Chevalier which was popular with both maltsters and brewers. Malt from Oxfordshire barley was also said to be popular with the Burton-on-Trent brewers.

The earliest records are 16th century and show that a yeoman of Witney was producing malt for sale. By the end of the 16th century Henley-on-Thames was well known for its malt. The town retained its importance into the 17th century, and one of the few descriptions of a 17th century malt kilns is of one in Henley. Another important malting town was Banbury which had 20 malt kilns destroyed in the fire of 1628. By the mid-17th century Oxford, city and county benefited from their proximity to London with its insatiable demand for malt to produce beer. In the late 18th century the river Isis was navigable for barges to and from London, and further growth in Oxford's malting industry was encouraged by the opening of the Oxford Canal in 1790. Transport along the Thames meant London could easily be provided with malt from such towns as Henley, Abingdon and Wallingford. Further afield, Burford's malting industry developed in the 18th century by using wharves at Radcot Bridge. By 19th century the main malting centres were Banbury, Bicester, Chipping Norton, Oxford, Henley, Wallingford, and Witney. In the 20th century a floor malting was built by Morland's at their brewery in Abingdon, and much later a pneumatic maltings was built at Wallingford.

Malthouses attributed to the 16th and 17th century are often just a name on a house. Two worthy of note are those that at Wallingford at Lower Wharf (Listed Grade II), and at Pettiwell, Garsington (Listed Grade II). Garne's Brewery malthouse at Burford is reputed to be of a 17th century date, although the kiln of which only the shell survives is almost certainly an 18th or early 19th century date.

A few noteworthy 19th century malthouse still survive. Of particular interest is that in Tidmarsh Lane, Oxford. This was operated for Morrells Brewery until 1956 when it was substantially fire damaged, but its main importance is that it was redesigned in 1883 by Henry Stopes, the renowned malting engineer. Another good example is to be found in St John Street, Banbury, (Listed Grade II) and now the only surviving example of Banbury's once extensive malting industry. The Hook Norton Brewery also had a malthouse but it is no longer used for producing malt. (It is listed grade II.)

Oxfordshire's malthouses are either built of locally available stone, especially the village or small town maltings, or later examples may be of brick with slate roofs.

Malthouses in Shropshire

Shropshire was a "malting county". The county was fortunate in having good malting barley producing lands, although their full extent is not known. The first reference to malting is in the 16th century when there were several fires in Shrewsbury which resulted from the malt kilns in the town. There were further references in the 17th century to the town's malting industry. By the 18th and 19th centuries many of villages and smaller towns had one or two maltsters. The main malting towns were Bridgnorth, Ellesmere, Ludlow, Oswestry, Shifnal, Shrewsbury, and Wellington. It is worth noting, that William Jones who had maltings in Shrewsbury was an innovator and had his Belle Vue maltings designed by Henry Stopes who also designed the kilns and steeps at the Ditherington Flax Mill when it was acquired by William Jones and converted into a maltings.

With malthouses attributed to the 16th century it is usually just the name which indicates the former use of the building. Even where the building is of an early date it is rare for the surviving features such as the kiln to be of such an early date, most survivals are of a later, often 18th century date. A good 18th century example which appears to the remodelling of a late 16th century building is to be found at Church Farm, Edgton (Listed Grade II). Here the kiln, its furnace, and perforated drying floor survive. Likewise the malting at Kinson Farm, Stoke St Milborough (Listed Grade II) is a reputedly complete 18th century malthouse in a 17th century building. An early 19th century malthouse, built of red sandstone, again with kiln furnace and floor survives in Red Abbey Lane, Alberbury with Cardeston.

A mid 19th century malthouse (Listed grade II), built of coursed limestone rubble and with a slate roof and with its kiln survives in Welsh Street, Bishop's Castle, and was probably in use until the second half of the 20th century. The survival of the many large industrial scale maltings in Shropshire illustrated in the *Brewers' Journal*, is surprisingly rather poor. Two at least were conversions from other buildings, one from a theatre in Oswestry (Willow Street, Listed Grade II), and that at Ditherington in Shrewsbury. William Jones converted Bage's Flax Mill (Listed Grade I) and was in use from the end of the 19th century to 1987. The building is rightly known for its iron frame construction but was also an important maltings. Besides the Belle Vue maltings William Jones also owned the now largely demolished maltings in Castlegate. Another maltings rather smaller than William Jones's complexes still exists in the Frankwell area of Shrewsbury.

The building materials are generally those locally available, and therefore include brick and slate roofed maltings as well as stone built ones, and a few timber framed examples such as a late 18th malthouse at Church House Farm, Little Ness.

Number of listed malthouses in the county: 41 (5 of which relate to the Flax Mill (malthouse) at Ditherington, Shrewsbury.)

Malthouses in Somerset

Somerset although perhaps not thought of as a "malting county" produced fine malting barley and had a flourishing industry in the 19th century. The earliest evidence for the malting industry in the county is in the 17th century. By the 18th and 19th centuries the main malting towns were Bath and its environ which had 12 maltsters in 1830, Bridgwater which also had 12, Frome with 10, and Taunton with 15, although a number of other towns had several maltsters. Chard was considered to have an important malting trade in the first half of the 19th century. Likewise Ilminster was noted for its malting trade although only one maltster is noted in the 1830 directory. A number of villages also had one or two maltsters.

The earliest surviving example is a malthouse said to be of a late 16th or early 17th century date survives at Hill Farmhouse, Stanley (Listed Grade II). It is built of random rubble, render and cob and a more modern slate roof. No kiln appears to survive. Another malting of a similar date is located at Karslake House, Winsford Village (Listed Grade II). Others are now represented by name only and there are no remains of the early structure.

Several 18th century malthouses survive in various stages of completeness. These include an 18th century rural maltings at Malt Kiln Farm, off Marsh Lane in Horsington (Listed Grade II) where the kiln is said to survive. There is another 18th century one at Halse (Listed Grade II) and now converted, but originally it retained most of its malting features, including its kilns. An 18th century malthouse also survives at Oakhill, but see below. A good small 19th century example is at Nethercot Farmhouse, Nethercot Lane, Lydeard St Lawrence (Listed Grade II). Its kiln and perforated tile drying floor survived. A large 19th century example was at Midford. It is built of stone and its kiln structure survives but no the furnace. It is converted.

Transport facilities were important, especially in the 19th century, with the result that in Bath in particular malthouses were built by the canal, in Sydney Buildings, which retains its kiln structure, although the furnace and perforated tile floor are no longer in position. Another example is in the Lower Bristol Road (Listed Grade II). It retains elevations with regularly spaced window, and its kiln structure including furnace shaft. The steeps have not survived, but the growing floors remain. Likewise the railways were important and in Frome the largest one was adjacent to the railway station but has been completely demolished except for one wall. Several malthouses do survive in Frome – the partial remains of a burgage plot maltings behind Willow Vale, a malthouse converted into squash courts in Adderwell, while the Lamb Brewery Maltings, dominating the town centre, has a new double kiln feature 'added' in its conversion to apartments. All these large malthouses are of stone, but large brick ones are to be found, converted, in Taunton.

There were also some substantial brewery maltings, most notably at Shepton Mallet where the spectacular Anglo Bavarian Brewery had its own maltings. The Charlton Brewery in Shepton Mallet also had its own maltings, as did the nearby Oakhill Brewery. The Oakhill Maltings (Listed Grade II) which front the main street are stone built and are said to be of an 18th century date. The later 19th century maltings were built behind but only the barley kiln survives.

The main building material was stone in towns like Frome, Bath and Shepton Mallet as well as in the villages, but there were brick maltings, at Taunton for example. The main roofing material was tile and later slate. All three of the maltings in Bath are built of stone. The surviving malthouses in Frome are predominantly stone buildings.

Number of listed malthouses in the county: 21 (includes those formerly in Avon.)

Malthouses in Staffordshire

Staffordshire was a malting county and is one of the few counties still to have a working floor malting. It is a malting county not particularly because of good barley growing land but because of the pre-eminence of Burton-on-Trent as a brewing town where the brewing and the production of malt was important by the 17th century. The extent of the industry in the rest of the county and before the 19th century is generally poorly documented but appears to have been extensive if on a small scale. With the coming of the railways, the barley for Burton's extensive malting industry was brought in from the rich lands of Lincolnshire and East Anglia. However, the importance of water transport should not be overlooked, and it is worth noting that the navigable Trent meant that barley could be brought in from Lincolnshire and Nottinghamshire in the 18th century. More local supplies came from Ibstock (Leicestershire), Ticknall and Smisby. Sometimes barley came from further afield such as Kings Lynn. By the 19th century, Lichfield and Stone also had substantial maltings. The 20th century saw a retraction of the industry, although there were still a substantial number of breweries requiring malt, and production remained important in Burton-on-Trent until the latter part of the century.

The earliest recognisable malthouses only survive from the 18th century, for example at Bond End and at Alton. The latter is particularly interesting because it is almost completely underground: the surviving features include the steep, what was probably a stone couch frame, growing floor and the kiln furnace and drying floor, although the cowl obviously gave onto the air, furthermore there is evidence that part of the malthouse is of 17th century date, including possibly the steep. An 18th century example also survives in Burton-on-Trent, 6A Horninglow Street, although no typical malting features survive. Another probably 18th century example is to be found at Springhill Lane, Lower Penn (Listed Grade II) where the kiln and its furnace may survive.

Many 19th century malthouses survive, with the majority being in Burton-on-Trent. Unfortunately some substantial complexes have been demolished. An early survival is to be found in Wetmore Road, built in 1864. It is now partly converted but retained steeps and kilns. A much later, although now less altered example is the Goat in Clarence Street. Here there are two malthouses side by side. The kiln on the one is the most noteworthy feature with its octagonal shape and goat cowl vane. Internally steeps survive albeit now damaged, also the growing floors and kilns with their furnaces and the storage areas. Other distinctive examples can be seen in Wetmore Road at its junction with Wharf Road and at the town end of Shobnall Road. Lichfield also retains some 19th century maltings, an example on in Upper St John Street, dated to 1858, and a more modern one on Birmingham Road. This latter example is still operated by the Wolverhampton and Dudley Breweries as a floor malting.

As indicated the majority of Burton-on-Trent's malthouses were floor maltings, however, the revolution in malting techniques did not pass by the most important malting centre. The first innovation was the building of Plough Maltings, a pneumatic drum maltings were built in 1900, and finally, of course, the Bass tower maltings was constructed.

The majority of Staffordshire's maltings which now survive are large commercial examples and were brick built with slate roofs. Even early examples such as Alton have much brickwork in their construction but equally the basic parts are of stone, and certainly stone was used for small and early malthouses.

Number of listed malthouses in the county: 21 (includes one from the West Midlands)

Malthouses in Suffolk

Suffolk is well known for its production of fine malting barley. Early transport facilities in the form of rivers and the sea enabled the malting industry to develop early in parts of the county. By the mid-18th century much of the malt produced was sent to London, but an equally important and early destination was Holland. Then, with the coming of the railways in the 19th century more of the county became accessible to other markets such as the Midlands. One particularly important development in the county was that by Patrick Stead who designed and built a pneumatic malting in Halesworth as early as 1842. Unfortunately it was not a success and all that remains of this pioneering idea is a small malting block, now converted to housing in Quay Street. The last working floor malting was at Bury St Edmunds and ceased operation in 1993. The building has since been demolished.

The earliest evidence for the malting industry in Suffolk comes from the 13th century. By the 17th century malting was still essentially associated with farming, but it was not entirely confined to rural areas and there is evidence that some malting was also carried on in towns. By the 18th century malting was an important town industry where adequate transport was available with records showing that the well-known Rotterdam export company of Hope had malt houses in lpswich, Stowmarket and Bury St Edmunds. By the 19th century it is clear that Suffolk had an extensive malting industry throughout most of the county.

The survival of malthouses in Suffolk does not mirror the historical evidence. Early kilns of a 13th century date have been excavated, but the earliest malthouses identifiable as such survive only from the 18th century. A number of earlier buildings do have connections with malting but there is no definitive evidence that they were built as malthouses. Also it was not unusual to insert at a later date a malthouse into an earlier building, as at 129 Ipswich Street, Stowmarket where the original building is 16th century and timber framed.

By the 18th century Suffolk had a widespread malting industry and this is reflected in the survival of malthouses of this date across the county. A good brick built example of this date is at Wangford, Elms Farm, originally operated by John Crisp, the founder of Crips maltings. Another 18th century example but in an urban context were the two linked malthouses on the east side of the Navigation at Stowmarket. Even more malthouses survive from the 19th century. They vary in size enormously. A good medium sized malthouse with some original features is to be found by the railway station at Halesworth. A large well-known malting complex is that at Snape. Smaller malthouses were also built in the 19th century, an example of which is in Hall Street, Long Melford. Not surprisingly Suffolk is one of the few counties where pneumatic maltings were constructed, sometimes as new buildings as in the case of that at Oulton Broad built in 1897, or in the 20th century inserted into floor maltings as in the case a drum malting at Greene King's Westgate Street Brewery, Bury St Edmunds or a Saladin plant in Pauls No 1, Key Street, Ipswich. Even so floor maltings were still being built in the early 20th century for example Pauls' No 5 at Felaw Street, Ipswich (1904), and now been completely gutted in conversion. Malting still continues in very modern (1998) plant at Kentford.

The majority of Suffolk's maltings are constructed of brick with tile or slate roofs. Earlier malthouses were probably timber framed, hence their relatively poor survival. Other building materials include clay lump and flint. Four types of malthouse are to be found in Suffolk: Newark, Ware, two storey, and multi-storey.

Malthouses in Surrey

Surrey is not a "malting county". Inevitably some barley was grown in the county with the main area being on the Greensand in the west of the county. There are references to the existence of a malting industry as early as the 16th century. More evidence survives for the 18th century when Defore noted that the people of Chertsey were almost exclusively employed either in making malt or transporting it to London! Otherwise the records indicate that villages and smaller towns had one or two maltsters, for example Farnham. Finally, the trades directories indicate that Surrey had an extensive malting industry in the 19th century.

Few malthouses can be dated to the 16th century, and it is often just the name which survives, and indicates the former use of the site. By the 18th and 19th centuries rather more maltings survive. Farnham is one of the towns where there were a number of malthouses. In West Street (Listed Grade II) is a mid 19th century one of three storeys, a brick building with a slate roof, but there is no evidence of any kiln surviving. Another one, in Red Lion Lane, part of the Red Lion Brewery (Listed Grade II) survives. This is also a mid 19th century building, again of brick with a slate roof and internally it has cast iron columns, but there is no indication that a kiln survives. Also in Upper Hales Road (Listed Grade II).is a converted malthouse and kiln. Finally there is the Farnham Maltings Centre which had kilns with H. J. H. King furnaces. The building is now an arts centre.

Outside Farnham, 19th century malthouses are to be found in Egham High Street (Listed Grade II). A brick building with slate roof of two storeys and surviving pyramidal kilns, and at Wraysbury Road, Staines (Listed Grade II).

Surrey's malthouses tend to be of brick buildings with slate roofs.

Malthouses in Sussex (East and West)

Sussex is not really considered as a "malting county" but a certain amount of malt was produced. However, malt was an important export product for Chichester which implies substantial production in the town. The malt was shipped initially to the West Country and later to London. The earliest references to malting in the county are from the 15th century, but most details are from later periods. For example there is a record of a new malthouse at Hastings in 1609, and that in 1649 there 9 maltsters in the town of Rye. During the second half of the 17th century there was a decline in the number of shipments of malt from Chichester to Exeter, Plymouth and Dartmouth but an increase in that to London. In 1684 there are records to show that there were [at least] three malthouses in the town. In the 18th century Chichester also retained its malt production, although most was now sent to London. In 1709 there were [at least] 8 malthouses, and by 1755, 31 malthouses were listed in the town, but by the end of the century the number had halved and the trade was declining. During the 18th century it was forbidden for malt to be dried by burning straw in order to reduce the risk of fire in the town. There were also a number of malthouses in Lewes in the 18th century. The 19th century records show a gradual reduction in the number of maltings during the century. There was a continued retraction of the industry during the 20th century, with production continuing until at least 1969 when the malthouse at Kingston-by-Sea closed.

The earliest surviving malthouses date to the 17th century. One such example is to be found at Coopers Green. It is dated 1652, and is listed grade II. Other 17th century examples are to be found at St Peter's Well, Church Lane, Lodsworth (Listed Grade II), and at The Malthouse, Dean Lane Tillington (Listed Grade II), but so often only the name indicates the presence of an early malthouse. Relatively few 18th century malthouses survive. One example is at Lewes in the Castle Precincts (Listed Grade II) is built of flint with brick banding and has been converted to the Record Office. Another survival with kiln, also in Lewes, is in Station Street (Listed Grade II). It is constructed of brick.

Not surprisingly rather more 19th century malthouses survive. One in Brewers Yard at Storrington (Listed Grade II) has been converted to dwellings. Another example is in Queen Street at Arundel (Listed Grade II). It is a brick building with a slate roof, and it would appear that part of the perforated drying floor survives. Also, a malthouse survives as part of a brewery in Drove Road, Portslade, Hove (Listed Grade II). In East Grinstead Verrall's attractive flint malthouse which has been converted to a house. Unfortunately other malthouses have been destroyed by fire: King and Barnes maltings at Horsham in 1961, and in the early years of the 20th century the Kemp Town Brewery's malthouse.

The malthouses of Sussex were often built of brick or flint with brick banding. Early roofs would have been of tile and later ones of slate.

Malthouses in Warwickshire (including Birmingham)

Warwickshire is not known as a "malting county", but the production of malt was important and probably wide spread from the post medieval period until the later nineteenth century. In the late 16th century malting was the chief activity of the town of Stratford-upon-Avon, as well as being important in the town of Alcester and in Coventry. The importance of the industry continued in all three towns into the 18th century, and even into the 19th century. In Stratford-upon-Avon the country's second pneumatic malting was built by the Flowers Brewery, although it would appear that it was later converted to a traditional floor maltings and continued operating as such well into the 20th century. The industry also remained important in Coventry with at least one large brewery malting being built in 1899 at Much Park Street. Other places where there were maltings included Bedworth, and brewery maltings at Leamington Spa, Redford Semble, and Warwick. Finally mention must be made of Birmingham where inevitably large maltings were built but it can hardly be said that it was a major industry there.

A number of 16th or 17th century buildings are described in the list descriptions as having a malthouse inserted or attached to them, but few retain any evidence of having been built or in use as malthouses at this time. That is not to say that they were not malthouses, just that there is now no evidence. An exception is that at Barton (Listed Grade 2) where the malthouse appears original. It is constructed of lias with a slate roof. Likewise 18th century maltings tend to represented by name only. The important Flowers brewery maltings survives in Stratford-upon-Avon. It is much altered having been converted to housing.

Warwickshire's malthouses were often built of local stone, or later brick, and early examples were timber framed, with roofs of tile or slate.

Number of listed malthouses in the county: 18 (includes two in the West Midlands)

Malthouses in Wiltshire

Wiltshire is known as a "malting county" and is one of the few where traditional floor malt is produced. The chief crops in the county were barley and wheat, and the barley was primarily used for the production of malt. The barley crop was considered to be one of the best available.

The earliest evidence for Wiltshire's malting industry is from the 16th century for the town of Warminster, where maltsters are recorded in the town in the middle of century. Westbury was another town with an early malting industry. Then in the mid 17th century the price for barley and malt was relatively high but declined towards the end of that century. By the 18th century it is clear that the malting industry was of particular importance in Warminster, where there were 36 malthouses in 1720. By the middle of the 18th century, Warminster's malting trade was said to be bigger than that of any other town in the west of England. It was supplying Somerset and much of Bristol. By the early 19th century Warminster's malting trade was beginning to decline, although there were still 25 malthouses in 1818. Over the years the decline continued, until by the end of the 19th century there were only 2 malting firms, although several malthouses. The main firm was Morgan/Beaven. Other towns engaged in the production of malt in the 18th century included Fisherton de la Mere, and North Bradley. Also, malting continued to be important in Westbury. By the 19th century malting was carried on in Chippenham, Cricklade, Lavington, Marlborough, Ramsbury, Aldbourne, Salisbury, as well as a number of other villages.

The earliest known Wiltshire malthouse, of possibly pre 16th century date is to be found the High Street at Lacock (Listed Grade II). The furnace and perforated kiln drying floor survive. Another maltkiln, possibly of a 16th century date survives in Church Walk, Ashton Keynes (Listed Grade II). Often, however, it is simply the name which indicates the former use of the building or site. A 17th or early 18th century malthouse survived at Trowle Common, near Trowbridge. It retained its steeping cistern, but the kiln furnace had gone, although part of the internal pyramidal roof shape did survive. It had been converted in the 19th century.

A malthouse said to be of 18th century date is to be found in the Market Place at Warminster (Listed Grade II). It is built of coursed squared rubble. The currently working malthouse in Pound Street, Warminster (Listed Grade II) is reputed to be 18th century but the majority was built or re-built in 1879. It is more or less complete and is of particular importance because of its association with E. S. Beaven. He was responsible for barley breeding and for kiln developments. At the maltings the brick built steeps survive as do it kilns designed to E. S Beaven's patent. Two other stone built maltings survive on Church Street, but are minus their internal features.

Another good example is to be found at Westbury Leigh (Listed Grade II). A much converted example is to be found at Wine Street, Bradford on Avon. It was part of the brewery as is the one at Arkells just outside Swindon. The very large late 19th century complex in Salisbury has been demolished.

The majority of Wiltshire's maltings are stone built, although there are some brick built examples. Roofs tend to be of tile or late slate.

Malthouses in Worcestershire

Worcestershire as a whole is not a "malting county", but the urban area bordering on the Birmingham conurbation has one large floor malting which is still in operation, Wolverhampton and Dudley's Langley Green maltings. Historical evidence indicates that the production of malt was an established industry in the county from the 16th century, especially as barley was the staple grain. By the early 19th century some 33,000 acres (13,360 hectares) of barley were grown in the county, and this produced about 957,000 bushels (24,314 tonnes) of which, it was calculated, some 560,000 bushels (14,227 tonnes) were used for producing malt. Despite the navigable rivers in the county, in particular the river Severn, there does not appear to have been an extensive trade in malt, unlike the adjoining county of Gloucestershire, although in the county as a whole there were many small maltings at the beginning of the 19th century.

The only malthouse which can be dated with certainty to the 16th century is that at Harvington Hall, (Listed grade 2) although it is clear that the present kiln is a later insert. Two probable malthouses of 17th century date are to be found at Wribbenhall (Listed Grade 2) but they have been converted. Likewise the one at Chaddesley Corbett (Listed Grade 2) is said to be 17th century but it has been converted, and is little more than a name to a building.

An 18th century urban example is to be found in Pershore. Another, but of a 19th century date, is to be found in the old county, at Langley Green, now part of the West Midlands. Showell's Maltings was built in 1870 and is now owned by Wolverhampton and Dudley (Banks's) brewery (Listed grade 2). It is a working floor maltings. There are two linked buildings each working independently and therefore with their own cast iron steeps, growing floors, and they had Suxé anthracite furnaces.

The maltings in Worcestershire are almost exclusively built of brick, although early ones would have been timber framed. Early roofs were of tile and later ones of slate.

Number of listed malthouses in the county: 9 (includes one in the West Midlands)

Malthouses in Yorkshire (The whole county)

Yorkshire is a "malting county". A county of industry and agriculture. The former meant a need for drink, in the form or beer, and the latter supplied part of that need in the form of good quality malting barley. Much was used in the malting industry of the industrial West Riding. It was also convenient to import both English and foreign barley, via Hull. Maltings were located along the canals, and later along railway lines.

The earliest reference to malting relate to 16th century York. The large number of malt kilns resulted in a shortage of fuel. The barley for malting came, in part, by water, from Lincolnshire and in times of a corn dearth malting had to be curtailed. In the 18th century there are references to maltkilns in Halifax and York. By the early 19th century the main malt producing towns were Armley, Bingley, Bradford, Dewsbury, Doncaster, Gomersall, Halifax, Huddersfield, Hull, Leeds, Mirfield, Otley, Pontefract, Rastrick, Ripon, Rotherham, Sowerby Bridge, Wakefield and York. Many of these towns remained important malting centres into the later 19th century, especially Bradford, Doncaster, Leeds, Mirfield, Pontefract and Wakefield. The industry continued well into the 20th century, in both the independent sector and for breweries. One 20th century malthouse was built at the Fountain Head Brewery, Malting Road, Ovenden Wood, Halifax. Others were extended as at Barnby Dun, and new silos were built for Simpsons at Pontefract. Thus maltings were working at Barnby Dun until the early 1980s and at Pontefract, a modern drum maltings operated until 2003. At Castleford, malting still continues.

A well-known and early example, probably 17th century is to be found at Kirklees (Listed Grade I). However, often the only indication of the existence of an early malthouse and kiln is the name, but an exception is that at the malthouse near Blacker Hall Farmhouse, Branch Road, Crigglestone (Listed Grade II*) which is of an early 17th century date and has evidence of its kiln.

A few 18th century malthouses do survive, for example at Ebberston in the Main Street (Listed Grade II). It is built of sandstone and has a pantile roof.

The majority of the surviving malthouses are of a mid to late 19th century date. Some, like Alne (Listed Grade II) are almost complete with steep, growing floors and kilns. Others such as a carpet show room at Pontefract were completely gutted internally. Large ones survive at Elland, and in Leeds, Broad Lane, Kirkstall part of the Kirkstall Brewery. Some of those at Mirfield have been demolished, including one which had been used by Bass as a drum maltings until the early 1990s. Another malting, built as a floor malting but converted to a drum maltings was to be found at South Milford, but it too has ceased to be used as a maltings. Other 19th century maltings are to be found at Ripon, in Ure Bank Road (Listed Grade II). Two of very different types but both late 19th century at Langthorpe, Boroughbridge. They both formed part of Warwick's Anchor Brewery. One has a round kiln, and the other two square kilns. Perhaps surprisingly it is the round kiln malting which was the last to be built. It has now been converted to housing. Two other areas which once had many maltings are Pontefract and Wakefield. Remnants of malthouses survive in both these towns. Some are clearly recognisable others, less so.

Yorkshire's malthouses were usually built of whatever building material was locally available. In consequence large maltings may be of stone as at Elland or brick as at Wakefield or Boroughbridge. Roofs were local stone, occasionally tile, or later slate.

Number of listed malthouses in the county: 21 (includes two formerly in Humberside.)

APPENDIX B MALTINGS IN ENGLAND BY COUNTY

County	1830s	1890s	Listed
Bedfordshire	43	22	1
Berkshire	59	26	8
Buckinghamshire	53	35	7
Cambridgeshire	54	17	16
Cheshire	8	4	0
Cornwall	41	22	11
Cumbria	34	5	5
Derbyshire	89	29	10
Devon	183	36	20
Dorset	71	25	17
Durham	40	13	2
Essex	164	84	50
Gloucestershire	119	34	53
Hampshire	138	47	35
Herefordshire	-	8	8
Hertfordshire	128	37	37
Huntingdonshire	30	15	(see Cambridgeshire)
Kent	-	65	32
Lancashire	52	25	5
Leicestershire	57	60	6
Lincolnshire	135	101	18
London/Middlesex	6/-	10	2
Norfolk	93	94	19
Northamptonshire	58	37	9
Northumberland	55	11	4
Nottinghamshire	108	101	12
Oxfordshire	66	13	32
Shropshire	276	103	41
Somerset	120	28	21
Staffordshire	335	120	21
Suffolk	111	132	44
Surrey	40	12	6
Sussex	-	29	25
Warwickshire	10	71	18
Westmoreland	15	1	(See Cumbria)
Wiltshire	110	53	33
Worcestershire	137	43	9
Yorkshire	546	178	21
Totals	3584	1746	658

Notes: This table shows the number of maltsters in the English counties as gleaned from the county trades directories. In consequence not all maltsters will have been included, and the number of maltsters does not completely reflect the number of malthouses in a county.

APPENDIX C MALTHOUSE FEATURES

No list of malthouse features can be exhaustive, but below is a list of features (both fixed and movable items) which may be found in malthouses.

External features

Long elevations are a distinctive feature usually with windows regularly spaced in every or every other bay. (Figs 8, 9, 12, 55). Early examples may have fewer and irregularly spaced windows. (Figs 6, 56). The windows may range in size from very small, just slits, to large and may have iron bars in the frame. **Louvres.** The windows may be glazed but are frequently unglazed with shutters or louvers. (Figs 32 - 25). **Dormers** also are a characteristic feature, (Fig 17).

Kilns generally have pyramidal shaped roofs with louvres of which there are a considerable variety: oast cowls with vanes, domestic chimney pots, square cowls with square hats with or without louvres. Round cowls with round hats. (Fig 2, 17, 50, 68).

Doors. Access doors for the maltsters will often be found next to the steeping cisterns. Loading doors on upper floors were for taking in barley or sending out malt and often have associated hoist housing. (Figs 16, 17). **Iron barred doors** often give access to the kiln furnace areas.

Tie bar bosses may be found in the long elevations but are most commonly found in the kiln elevations.

Fixed internal features

Barley kiln which includes a furnace and spark plate, perforated drying floor and its support structure, cowl on kiln roof, shuttered windows and means of loading and unloading such as a door or hatch.

Barley storage bins. These may be wooden bins or just cast iron columns with grooves for slotting boards into. (Figs 14, 15).

Barley screens. Plant for preparing the barley. (Fig 51).

Steeping cisterns. Steeps come in many shapes and sizes depending on their age: rectangular/square flat bottomed ones constructed of stone or stone slabs, brick with drainage channel down the centre covered with perforated ceramic kiln tiles or perforated cast iron tiles, and lined with waterproofing cement, lead, or tiles. Rectangular cast iron steeps with hatches in the bottom and sides for unloading. Hopper bottomed steeps of cast iron or steel. The former are square or rectangular in shape, and latter are round. Some round steeps were lined with ceramic tiles. (Figs 18, 19, 20, 21, 22).

Couch frame: indicated by thickened patches of plaster on walls adjacent to steep; groove in floor in front of steep for two inch wooden boards to fit into; Fixed wooden boards running from side of steep (slotted into the previously mentioned grooves); first row of columns out from steep with flanges for wooden boards to be slotted into (known as couch columns); flattened side to first row of columns out from steep for couch boards to be rest against; flat raised area in front of steep usually a mezzanine floor between an upper and lower growing floor. (Fig 27)

Growing floors: floor cover of stone slabs, tamped chalk, brick pammets, large quarry tiles, small quarry tiles - laid straight or on the diagonal, large slates, plaster (gypsum) screed surface, cement screed surface. The above may be laid on wooden boards or reeds or straight onto timber joists. Upper floors supported by cast iron columns or timber or stone columns, both the latter being squared and sometimes chamfered at top and or bottom. (Figs 28, 29, 37, 38, 54).

Malt kilns: Kiln furnace with or without door(s), maker's plate, shaft and spark plate, drying floor of perforated ceramic tiles, woven wire, wedge wire, or perforated metal sheet and support structure, kiln turners, kiln cowl, and fan, kiln loading and unloading features: doors, hatches, chutes above and below. (Figs 45 - 50).

Malt Storage: wooden bins, zinc lined bins, cast iron columns with grooves for slotting boards into; external silos of steel or concrete.

Malt screen.

Doors or chutes for throwing the malt through

Hoists with hatches in floors.

Hoisting machinery - bucket elevators and the boxing for same, and base machinery, and pits; augers; line shafting to machinery, external hoists;

Overhead Boby barrows on runners above growing floors.

Movable Items:

The implements used in malting are often distinctive with early examples often being made of wood. The following are items are amongst those that are worth noting.

malt shovels

malt forks

light corn removers (sieves of wire or iron plates with holes in)

malt ploughs (three pronged flat bladed forks)

power shovels

Robinson turners

Bulldozers

brooms,

piece tidiers

sample tins

sacks

baskets of various sizes but often the same shape as hatches

Boby or malt barrows

wheel barrows

basket barrows

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