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HOP-GROWING IN EAST ANGLIA

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Note

I first met Ian Hornsey back in 2010 after a visit the Great British Beer Festival. I had just come into brewing as a second career following the banking crisis of 2008/9. I had known of Nethergate Brewery which he set up with business partner, Dick Burge, back in 1986 in Clare, Suffolk. His hometown. One of my big regrets is that I never visited the site only getting to see their next base in Pentlow, Essex.

Ian and I used to meet up for a beer and a chat now and again. He was very knowledgeable and was more than happy to share much brewing wisdom with me. Indeed, one of my first textbooks, when studying the Institute of Brewing and Distilling (IBD) exams, was his Brewing (1998, Royal Society of Chemistry). We went to Cambridge beer festival a few times and on a couple of IBD Study tours. He was always lively and quite cheeky at times.

In 2012, he gave me a memory stick containing some his work in draft form and some papers which might be of interest that he was looking at. This was following a conversation we'd had about hop growing in Essex. One of the documents on that stick was 'Hop Growing in Essex', a subject I was looking into at that time. A recent trip to Clare to visit his grave prompted me to look into the other material and in a sub folder I found this article 'Hop Growing in East Anglia', again in draft form. The Essex section being the one I had already seen.

I decided to edit this and approached Tim Holt to see if the BHS would be interested in publishing it in this journal, something Tim readily agreed. It was thought best to obtain permission from Ian's family and I am happy that they were very enthusiastic and gave their seal of approval.

Nigel Sadler

The date when hops were first grown commercially in the British Isles for brewing purposes, may now never be precisely known. What we do know is that the crop was grown, and used for brewing, in northern Europe, particularly the Low Countries, some time before their employment this side of The Channel. The importation of, and the use of hops for brewing in England is attested for the 9th and 10th centuries A.D., and undoubtedly continued until their use was discouraged at the behest of the ale-brewers during the 15th century. The Assize of Bread and Ale (*Assiza Panis et Cervicie*), invoked in 1267, during the reign of Henry III (*51 Hen. III*), initially covered only the indigenous unhopped ale, and it was not until an ordinance of 1484 that hops were actually proscribed in English brewing. Although the use of the plant was initially frowned upon, many a blind eye must have been turned to the activities of 'bere-brewers', most of whom were from the Low Countries. Once it was realised that use of the hop gave rise to a stable, highly palatable, and more robust drink, brewers could now brew larger batches than were necessary for their immediate (domestic) requirements. Thus, there was now the potential for an entrepreneurial brewer to brew commercially for customers in a greater hinterland, transport of the drink now being less of a problem.

The modern devotee of traditional British beer may be forgiven for assuming that commercial hop cultivation in these islands is, and always has been, confined to the counties of Kent, Herefordshire and Worcestershire. Such a notion is correct, as applied to most of the 20th century and the present day, but it was not ever thus. Darling (1961), for example, reports that, in 1870, hops were being grown in no less than 53 counties in the British Isles (40 in England; 8 in Wales; 5 in Scotland), nearly every county having grown them, if only purely to service the needs of local common and domestic brewers. Cultivation extended as far north as Aberdeenshire, but hops ceased to be grown in Scotland in 1871, and in Wales in 1874. English hop acreage reached its peak of 71,789 acres in 1878, and fluctuated around this level until 1886, after which production steadily declined.

Accurate records of commercial hop-growing activity in the UK are unavailable prior to 1711, because it is not until that year, during the reign of Queen Anne, that we witness the first duty levied on hops. A Statute of 1710 (*9.Anne ch.12*) levied 1d. per pound on English hops, and 3d. per pound on their imported Flemish counterparts, the tax becoming operative in June the following year. Hops continued to be dutiable, at varying rates,[1] until 1862, when the Act was repealed. Amongst other things, the Act resulted in the smuggling of hops from the Continent, to avoid the stiff import duty. Such activity must have been considerable, for in 1734 there was further legislation passed 'to prevent the clandestine importation of hops,' the penalty being destruction of the hops, and a fine of 5s. per pound imported.

In a review of the cultivation of hops in Great Britain during the 18th and early-19th centuries, Mathias (1959) describes the three main hop-growing areas: Kent, Farnham, and the Severn valley, and then offers the following information:

> Apart from these three main centres, small patches of hops were to be found scattered far and wide over southern England wherever warmth, shelter and rich soil were to be found together. There was a small area of above 200 acres near Stowmarket in Suffolk which flourished until the 19th century. Tradition, supported by Aubrey, had it that from Suffolk at the end of the 17th century the hop was taken into Surrey and to Farnham itself; some said in conscious substitution after the decline of the cloth trade, others that the cloth trade was given up willingly in order to make a better profit from hops. Other favoured spots were to be found at Gt.Marlow and Medmenham, in the Thames valley; in Essex near Chelmsford; about Retford and Southwell in Nottinghamshire, and through many other counties.

In relation to mainstream items, such as wheat and barley, the hop can be considered an unusual crop on several counts. It is expensive both to establish and maintain, requiring (until the fairly recent introduction of dwarf hops) an extensive framework of poles, wires and strings. In addition, the ground in which the plant grows has to be kept clean and well-manured, and a veritable army of casual labour is required for its short harvesting period. The special requirements of the hop necessitate its cultivation in enclosed fields with little or no possibility of any rotation. Again, unlike most other crops, the hop has, for a long time, had only a single market; the brewing industry. In more ancient times, the plant was grown for a dyestuff, for its fibre, and for its medicinal properties.

It seems as though, in certain parts of Essex and Suffolk at least, farmers were prepared to be more experimental, in terms of the crops that they were willing to grow. This may well be associated with the need to cultivate specialised crops, such as weld, madder, and teasel, for use in the extensive textile industries of the area. It may not be coincidental that the decline of these textile industries, especially from the 1770s onwards, seems to have gone hand-in-hand with cessation of hop cultivation in many parts of the two counties.

Lord Ernle (R.E.P.Ernle), in his *English Farming, Past and Present*, 1912, comments:

> Since the Middle Ages, the only addition to agricultural resources had been hops, introduced into the eastern counties from Flanders at the end of the 15th century. The date 1524, which is usually given for their introduction, is too late; so also is the rhyme, of which there are several variations: 'Hops, reformation … etc'.

In Thomas Tusser's day hops were extensively cultivated in Essex and Suffolk, and much of what he wrote about hops was evidently based upon his own experiences in various parts of East Anglia. Tusser (c.1524-1580) was born into a well-to-do family at Rivenhall, near Witham, in Essex. He studied at Eton and Cambridge, then lived at court for ten years as retainer and musician to Lord Paget, before turning, without much success, to farming, both at Cattawade, in Suffolk and West Dereham, in Norfolk. He then farmed taxes in Essex before becoming a servant at Trinity Hall, Cambridge. At the time of his death, he owned a small estate at Chesterton, Cambridge. His didactic poem, *A Hundreth Good Points of Husbandrie*, was first published in 1557, whilst he was living at Cattawade, and is a series of practical directions for farming, although it does not contain any reference to hops. This work was expanded in 1573 into *Five Hundreth Pointes of Good Husbandry united to as many of Good Huswifery*, which contains a whole section entitled: 'Directions for Cultivating a Hop Garden.' In it, even at this early date, there is an allusion to the preservative properties of the hop in beer:

> The hop for his profit I thus do exalt,
> it strengtheneth drinke, and it flavoureth malt;
> And being well brewed, long kept it will last,
> and drawing abide … if ye drawe not too fast.

Hop cultivation rapidly spread on enclosed land, hedgerows providing an ideal habitat for a climbing plant, and it is surely not coincidental that Essex, Suffolk, and Norfolk had seen much of their acreage subjected to enclosure from an early date. The same applied to Kent, a fact that did not go unnoticed by Riches (1967) when she commented:

> The early field arrangements of Kent and East Anglia had important effects on agricultural practice.

As can be seen from the statement below, Harrison (1577) questions whether any better are to be found than those

grown in England. The first major treatise devoted entirely to hops was written by Reynolde Scot in 1574. In that year, Scot, himself a man of Kent, published his *Perfite Platforme of a Hoppe Garden*, which contained minute instructions for the growing, picking, drying and packing of hops. The book was reprinted in 1575, and again in 1576. It was still the standard work in 1651, for we find that in Samuel Hartlib's *Legacie*, published in that year, the work is referred to as 'an excellent Treatise, to which little or nothing hath been added, though the best part of an hundred years are since past.'

Ernle is almost certainly correct when he says that the date 1524 is 'too late', but he gives no clue as to how he reaches that conclusion. In the section 'Later Stewarts and the Revolution,' Ernle states: 'hops were not confined to Kent, but had spread into Suffolk, Essex, Surrey, and other counties.' Again, Ernle is making an assumption here, i.e. that hops had spread from Kent to other counties; as we shall see, this may not necessarily have been the case. In the section 'Essex and Suffolk,' he writes 'and hops flourished round Saxmundham'.[2]

Thirsk (1967) tells us that: 'Norfolk and Suffolk were among the first English counties to grow hops,' and that: 'Hops were first grown in Suffolk, Kent, Surrey and Essex and later moved westward into Hampshire and Herefordshire. Despite high labour costs, the financial rewards of hop -growing were attractive to large farmers who had suitable, well-drained soil.'

Later, In a section dealing with the hop industry in Kent, we find:

> London's supplies of hops came partly from Kent. Hops had been grown in the county since before 1500, though probably not on a commercial scale until the end of the 16th century. By Charles I's reign the county possessed a rudimentary hop-exchange, situated in Canterbury and visited by factors from London and other counties, who sometimes purchased hops in quantities of a couple of tons at a time. Probably more extensive at this time than the kentish hop trade was that of suffolk, essex and possibly surrey. According to Robert Reyce, writing in James I's reign, many Suffolk farmers had become 'hop-masters' and 'in short time proved wealthy, thereby, many leaving their wonted trade' and devoting themselves wholly to the 'new-found mystery of planting, setting, drying, and trimming …' Much of this Suffolk trade was not destined for London, but for the west country and Stourbridge Fair, where bargains of 12 tons, or £640 worth at a time, were not unknown (Reyce, p.31; Court of Requests, PRO, 239;57; State Papers Domestic 16, 6, 77). Of the Suffolk trade to the metropolis, much like that from Kent and Surrey, was waterborne, by way of the east coast estuaries or the river Ouse and North Sea.

Writing in 1607, John Norden says: 'Your lowe and spungie grounde, trenched, is good for hoppes, as Suffolke, Essex, and Surrie, and other places doe find to their profit.' This is a statement that suggests that hop-growing was very well established in these counties at the beginning of the 17th century, and may have formed a basis for Thirsk's statement above. It is also interesting to note that Kent is not specifically mentioned here, something that lends credence to the fact that British hop-growing may have originated elsewhere, probably in East Anglia.

In *A Synopsis of Husbandry* by John Banister (1799), the growing of hops is reported as being a widespread and profitable business. He says:

> The large fortunes heretofore gained by the Kentish hop planters, have encouraged adventurers in other counties to try their skill in the culture of this vegetable, and the plantation has thereupon, of late years, increased in such rapidity, that there are supposed to be not less than 20,000 acres of land planted with hops.

Banister also maintained that hops were first planted in England in 1511.

Essex

Modern observers may not immediately associate Essex with being lush and brimming over with agricultural produce, but, according to some ancient worthies, the county could have at one time claimed to have been a veritable 'Garden of England'. Take note, for example, what John Norden said in his topographical study of 1594:

> This shire is most fatt, fruiteful, and full of profitable thinges, exceeding (as far as I can finde) anie other shire, for the general commodoties and the plenty, and it seemeth to deserve the title of the English Goshen, the fattest in the lande, comparable to Palestina, that flowed with milke and hunnye.

Lord Ernle's previously mentioned doubts over the date 1524 may well have been fuelled by the pen of William Harrison (1534-1593), who at one time held a living at Radwinter, near Saffron Walden, Essex, and was an important 16th century chronicler, being the author of *Description of England in Shakespeare's Youth*, written in 1577. Near the beginning of Elizabeth I's reign, Reginald Wolfe, the Queen's Printer, planned to publish a 'universal Cosmography of the whole world and therewith also certain particular histories of every known nation.' Raphael Holinshed had charge of the histories of England, Scotland and Ireland, the only part of the work ever published; and these were issued in 1577, and have since been known as *Holin-*

shed's Chronicles. From them Shakespeare drew most of the material for some of his historical plays (notably Macbeth, King Lear and Cymbeline). Among Holinshed's collaborators was William Harrison, and to him was allotted the task of writing the 'Descriptions of Britain and England.' Harrison's contribution to the *Chronicle*s drew heavily from the earlier work of John Leland, and the 'description' appeared in the second edition of the *Chronicles*, published in 1587. Harrison, in the section of his book entitled 'Of Gardens and Orchards,' noted that hops were being cultivated in England in a serious way, and also alludes to the fact that they may have been first planted some considerable while previously, but that their popularity had waned. He also noted that one of the major items of expense in the hop-garden was the provision of wooden poles. He proclaims:

> Hops in time past were plentiful in this land; afterwards also their maintenance did cease, and now being revived, where are any better to be found? Where any greater commodity to be raised by them? Only poles are accounted to be their greatest charge. But sith men have learned of late to sow ashen keys in ashyards by themselves, that inconvenience in short time will be redressed.

Maybe, when making the above statement, Harrison was cognizant of the fact that hops were being cultivated commercially in a hop-yard in nearby Clavering, one which was apparently well-established by 1562. Additionally, he may have known that there had been a hop-garden at Ingatestone Hall, the Essex family seat of the Petre family, since at least 1548, a fact that makes it the oldest documented hop-garden in Essex (Emmison, 1961). It would appear that the hop had long been an integral part of the recipes in the brewhouse at Ingatestone Hall, for, as Emmison says: 'Imported hops were certainly used in beer-brewing there before their introduction [?] in 1525.'

As a point of interest, hop-kilns are not specifically mentioned at Ingatestone Hall until one is documented in an inventory of 1600. It is assumed that at least one would have been present before this time, but was not specifically recorded.

Harrison goes on to indicate the extent to which the crop was being cultivated, and to extol the superiority of English varieties over their foreign counterparts, particularly in terms of crop cleanliness. He says:

> Of late years, we have found and taken up a great trade in planting hops, whereof our moory, hitherto unprofitable grounds do yield such plenty and increase that there are few farmers or occupiers in the country which have not gardens and hops growing of their own, and those far better than do come from Flanders unto us. Certes the corruptions used by the Flemings and forgery daily practised in this kind of ware gave us occasion to plant them here at home, so that now we may spare and send many over to them. And this I know by experience, that some one man, by conversion of his moory lands into hopyards, whereof he had no commodity, doth raise yearly by so little as 12 acres in compass 200 marks, all charges borne toward the maintenance of his family. Which industry God continue! though some secret friends of Flemings let not to exclaim against this commodity as a spoil of wood, by reason of the poles, which nevertheless after 3 years do also come to the fire and spare their other fuel.

Harrison maintained that 'alder poles are best, and should be cut "All Hallowtyde" and Christmas ready for use.'

From extant records it would appear that Spanish chestnut and ash were normally the trees used for hop-poles in East Anglia. The use of these woods is at variance with the accepted practice in the Low Countries, where, according to Slicher van Bath (1963), fir or poplar poles were usually used in the hop-garden.

As the second volume of the *Victoria County History of Essex* tells us:

> Colchester has always been the foremost town in the county. It was the original centre of the woollen industry of Essex, which grew up here as early as the 13th century. When Edward III brought over Flemish weavers to improve the cloth trade, Colchester soon outstripped all the other towns. The first Dutch settlement of importance since that brought about by Edward III was made at Colchester in 1568, when eleven families found their way thither.

One of the most enlightening accounts of this period comes from an appendix in Moens (1905). It shows that in returns giving the names and trades of the male immigrants (and the length of time that they had been in the country), and their families, in 1571 (*S.P. Dom. Eliz.*), three brewers and six hop-planters were listed as: 'Strangers within the towne of Colchester the xith daie of May in the xiijth year of the reigne of o' sou'eigne Ladie Elizabeth, etc. etc.'

The names of those 'strangers', who were hop-planters, and who all came from Flaunders (sic), were given as: Derick Barton, Francis Roundele, Wouter Stowteheten, Rase De Burker, Peter De Baert, and Cristian Messew.

Beer was being brewed in Colchester, however, long before this second major influx of immigrants from the Low Countries during Elizabethan times, probably as a result of the immigrations of the 13th century. During the Middle Ages, The Hythe in Colchester was an important port, and customs records indicate that beer was being imported into the town from northern Germany, at least as early as the

1390s. Britnell (1986) reports that, in 1397, the cargoes of the *Cristofre* of Danzig, and of the *Seintmarishyp* of 'Danburgh' contained small quantities of beer (PRO E.122/193/33 fos. 13r, 16r, v). In the twelve months beginning 10 July, 1397 around 100 barrels of beer was landed at Hythe (PRO E.122/193/33 fos. 13v, 15v, 16v bis, 25v.). The actual total recorded was '7 lasts and 16 barrels'; a last being equivalent to 12 barrels. None of the customs records at this time indicate any importation of hops. During the course of the 15th century, we find a gradual shift in emphasis in the goods coming into Colchester, for similar customs accounts from the late 1450s and early 1460s do not record any imports of beer whatsoever. Instead, hops are being imported in large quantity (PRO E.122/52/42, mm. 1d, 2r, 3r; E.122/52/43 m. 1r), a development that was apparently widespread in the North Sea trading area. During the first three decades of the 15th century, hop-growing spread in the northern parts of Brabant (e.g. Antwerp and 's-Hertogenbosch), as the area adopted the hop for its brewing industry. As a result, the extensive importation of hopped beer from Haarlem ceased, and was replaced by an indigenous hopped beer industry (van der Wee, 1963). As Britnell aptly said: 'Colchester men had not only acquired a taste for beer; they had started making it themselves, and had already eliminated the need for imports.'

Evidence of the gradual transition from ale to beer can be obtained from the town court records, which clearly indicate that ale-brewers were gradually being superseded by beer-brewers. The bailiffs of Colchester were obliged to regulate the price of ale in accordance with the Assize (unusually, the town did not appoint ale-conners), and offences against the Assize were brought to their attention at a session called the lawhundred, held three times a year (Michaelmas, Hilary and Hocktide) in the Moot Hall. At the lawhundred, a jury of residents from each ward in the borough reported any minor misdemeanours that had been committed. The lawhundred began to recognise beer, as opposed to ale, early in the 15th century. The earliest surviving report that we have is from the Michaelmas lawhundred of 1406, when five beer-sellers were amerced (CR. 36/3r,d). Some of the early beer-sellers were of Dutch origin, but most were English. In the former category we find: John Smyth 'Ducheman' who was amerced in 1407 and 1411/12 (CR 36/11d; CR 38/2r, 13d); Clays Ducheman in 1411/12 (CR 38/2r, 13d, 24d); Agnes Smyth 'Ducheman' and William Alwyne 'Ducheman' in 1412 (CR 38/24d). These offences relate to the sale of beer, not necessarily brewing, but there are instances that confirm that the beer-seller was also the brewer. At the Hilary lawhundred of 1412, for example, we read: 'The jury presents that Florencius Beermakere brewed and sold beer against the assize and proclamation.' (i.e. he charged too high a price for it). At the same hearing, four others were accused of the same thing (CR 38/13d).

The first major beer-brewer in Colchester was Thomas Wode, a man of some standing, who lived at Hythe, where he rented a tenement from the community. Wode was influential enough to be granted the lease of the tolls at Hythe for a number of years between 1435 and 1449, and during this period he appears to have more or less controlled beer-brewing in Colchester. Certainly, during the 1440s, records show that his wife was the only beer-seller to be amerced at the lawhundreds. Wode's premises in the port area of Colchester must have been a very favourable site for brewing beer, for there would have been no shortage of German and Dutch seamen anxious to consume his produce. Some of the subsequent prominent beer-brewers in the town were immigrants from the Low Countries, such as Peter Herryson from Brabant, who was also known as Peter Bierman, or Peter Bierbrewer, and who became a burgess in 1454. Under one name, or another, Herryson appears in most of the lawhundred reports from Michaelmas 1455 to Hocktide 1471 (CR 66/2d CR 74/23d), and his widow is mentioned at the Michaelmas lawhundred of 1473 (CR 75/2d). In 1460, Herryson was amerced because 'he throws the draff from his brewing beside his house in Hythe and annoys the king's subjects with the smell thereof.' Edmund Hermanson, also from Brabant, is named in every surviving lawhundred report between Michaelmas 1466 and Hocktide 1485, and was brewing beer throughout most of Henry VII's reign. Hermanson became a burgess in 1465, and later became wealthy enough to endow one of Colchester's few chantries (Morant, 1748). Surviving records indicate that the brewing of beer required more capital outlay than brewing ale, and so beer-brewers were more likely to be men of substance. This may possibly be put down to the fact that beer-brewing demanded more expensive equipment, or it may reflect the fact that ale was, of necessity, brewed, sold, and drunk (and paid for!) in a very short space of time, thus creating fewer cash-flow problems for the brewery. It is usually difficult to pin-point the exact reasons for the trends exhibited by historical data, but Britnell attempts to explain the observed diminution in the number of ale-brewers in Colchester during the 15th century in the following way:

> It is reasonable to ascribe some of the decline in the number of ale brewers to competition from beer. Thomas Wode's success as a beer brewer in the 1430s and 1440s perhaps corresponded to the first inroads of beer drinking at the expense of ale. And the larger scale of operations in beer brewing would explain why the total number of brewers fell during these decades despite the temporary recovery of Colchester's trade and industry. However, not all the decrease in the number of brewers during the 15th century can be explained in this way. The evidence nowhere implies that there were more larger breweries in the 1520s than in the 1460s, so that the average size had increased. There is still room, therefore, for declining consumption as part of the explanation for the movement of the

figures, particularly in the later part of the period when large breweries and a taste for beer were already established features of the urban scene.

In the absence of records kept for official (e.g. excise) purposes, we have to resort mainly to domestic papers for information concerning the extent and location of hop-growing in Essex during the 16th and 17th centuries. Many of these items are documentations of tithes, wills, or, less commonly, related to criminal offences. Around the end of the 16th century there are numerous testaments containing references to hop-yards and hop-gardens from all over the county, not merely the renowned areas in the north. The majority of these citations, however, refer to small, domestic holdings, rather than to commercial enterprises. In this respect, Emmison (1978; 1980; 1986) records a variety of wills of the gentry, merchants, and yeomen of Essex, and some of those which make specific mention of the hop, include:

Robert Purcas of Thaxted, haberdasher, 6 January 1571.
'To Joan my wife my two messuages with the buildings thereon in Thaxted in my occupation, whereof in one I dwell in Town Street and the other in Mill End, Kentes mead, my hopgarden, my crofts of pasture …'

John Peers of Mountnessing, gentleman, 19 January 1583.
Left to his daughter, Anne, after his wife's decease, among a myriad of other items, 'my hop poles.'

Thomas Hawes of Castle Hedingham, tailor, 27 February 1571.
Left to Thomas, his son: '… my tenement that Bowman dwelleth in, with the hop poles thereto belonging …'

Mary Tym[m]es of Castle Hedingham, widow, 14 February 1574.
'I will that my hops which now be packed, my hop poles and my "sowe" be sold and the money delivered to Robt. Smithe my brother of Halstead to divide among my children's children equally at 21.'

John Rochester of Terling, esquire, 23 August 1583.
Also mentions hop poles in his will.

Anthony Maxey of Bradwell-near-Coggeshall, esquire, 18 October 1590.
'My hops here and at Saling (except my wife's hops that grew in her garden called my wife's garden) shall be sold for the performance of my will.'

Richard Barlee of Elsenham, esquire, 7 June 1593.
The rest of my household stuff in my house of Elsenham, except my provision of victual in the house as fish, butter, cheese, hops and corn … to my loving wife, together with £20.'

Thomas Glover of Dedham, clothier, 17 November 1596.
Mentions a 'hopyard' in his will.

Laurence Broome of Little Baddow, gentleman, 4 June 1597.
'To my two daughters Elizabeth and Susan equally to be divided my messuage in Castle Hedingham with a tenement, garden and hopground adjoining; …'

Edmund Sherman of Dedham, clothier, 31 July 1597.
Leaves to his wife Anne … 'My house I dwell in; my woodhouse and hopyard annexed which I bought of John Upchere …'

Some testaments include precise instructions as to what should be done with the hop ground after the demise of the testator, and indicate the esteem in which the crop was held. For example, in 1595, Richard Bretten of Sible Hedingham, when bequeathing 'my acre of hopground in Codham New Park,' enjoins his wife that 'when she hath taken of her crop of hops, she shall stake it with poles and dig up the hop ground and dress it at the seasonable time of year, and when time is, to pole it and pare it and weed it at her cost.' Occasionally, the directions in a will would pay due regard to the vagaries of nature, perhaps the most notable example of this being the 1581 will of John Lyddye of Castle Hedingham, who specified:

> If it shall please Almighty God of his goodness to send good increase of hops upon my ground this next year, then I will that my wife shall pay unto my sons £5 apiece more.

One of the earliest recorded hop-related felonies in Essex is presented by Emmison (1970), who reports that, in 1571, Richard Grene's vicarage garden at Great Maplestead was raided by three male and six female parishioners, who carried away hops worth 20s. and assaulted his wife. Each miscreant was fined 2s. Many of the reported criminal acts concerning hop-growing, however, relate to hop-poles rather than to the crop itself. Thus, at Halstead court, in 1577, two townsmen had to pay 12d. for 'collecting hop-poles', and, in 1595, another was charged with being a 'hedge-breaker and stealer of hop-poles.' Hop-poles were obviously valuable items in those days, and were a potential source of fuel, as well as being useful for building. In the same court in 1586, one Henry Scott was ordered to remove hop-poles that obstructed the water course [River Colne] at 'Parsonage Bridge against Jernygons Mead.' There are also several incidences of persons being amerced for obstructing the highway with piles of hop-poles.

In a totally different context, and in a different era, we read that John Jegon, parson of Sible Hedingham, was, in 1643, accused of being a 'profaner of the Sabbath Day' when he

left his wife and servants to bag hops whilst he, himself, went off to evening prayer!

Steer (1950) provides us with a series of mid-17th – mid-18th century farm and cottage inventories from mid-Essex, four of which document evidence of hop-growing in this part of the county. By far the most important grower was one Thomas Crush, of Dukes, Roxwell, who had a considerable sum of money tied up in the culture of the crop. Dukes was an important house in the area, and amongst the many items listed on 10 July, 1686, we find:

IN THE MALT CHAMBER: one hundred and fifteen quarters of malt £115 0s. 0d.
and in hopps £55 4s. 3d.

IN THE HOP GARDEN: twelve thousand of hoppoles £60 0s. 0d.
the cropp upon the ground £150 0s. 0d.

A thorough treatment of Thomas Crush's inventory at Dukes, has been provided by Norris (1906).

Steer also records the inventory of Richard Wolfe, also of Roxwell, dated 24 September, 1678. Of interest to us are part of the contents of 'The Stable':

twelve bags of old hops	£17 0s. 0d.
new hopps unbagged	£60 0s. 0d.
the hoppoales on the ground	£45 0s 0d.

In Emmison's *Catalogue of Essex Parish Records* (1966), we find that the incumbent of Widdington, near Saffron Walden, received the following in the Tithe accounts for that parish, during the period 1662-1664: 'Daily receipts for all kinds of tithe, including hops, fruit, wool, honey, dovehouse and mill.'

By the time that John Norden published his survey of Essex in 1594, hops were a well-established feature of the countryside in the northern part of the county, as can be gleaned from the following fragment from his work:

> The second quarter of the shire may be saide to contayne the hundreds of Lexden, Hinckforde, Dunmow and Froswell, which lye in the northe parte of the shire. And theis abounde greatelie with hopps. A comodite of greate and continuall use, but draweth with it an inconvenience: the distruction of younge springes.[3]

Significantly, as far as our story is concerned, Thomas Fuller's *Worthies of England*, completed in 1660, but published posthumously in 1662, the chapter on Essex includes an entry entitled 'hops', the only entry for the crop in the entire work. To me, this is highly significant because Fuller (1608-1661), a clergyman, who at one time was curate of Waltham Abbey, must have associated hop-growing with this county, rather than any other (Kent, for example). Fuller, in what is an invaluable store of antiquarian information, describes every county in England, giving the reader a resumé of the important characters of each. Hops really must have been in the forefront of his mind when he embarked upon the worthiness of Essex, because they warrant an exalted position in the chapter, together with saffron and oysters. As can be seen from the following, the entry is of a general nature, summarising much of what was being said about the plant soon after its introduction into England. The piece is rather typical of Fuller's famed wit:

> In Latin lupulus, or the little wolf, which made a merry man complain that this wolf did too often devour the innocent malt in beer. Gerard observes they grow best in those countries where vines will not grow, intimating that Nature pointeth at their use therein.
>
> They are not so bitter in themselves as others have been against them, accusing hops for noxious; preserving beer, but destroying those who drink it. These plead the petition presented in parliament in the reign of King Henry the Sixth, against the 'wicked weed' called hops. Their back-friends also affirm, the stone never so epidemical in England, as since the general reception and use of hops in the beginning of King Henry the Eighth.
>
> But hops have since outgrown and overtopped all these accusations, being adjudged wholesome, if statutable and 'unmixed with any powder, dust, dross, sand, or other soil whatsoever,' which made up two parts of three in foreign hops formerly imported hither.
>
> They delight most in moist grounds. No commodity starteth so soon and sinketh so suddenly in the price; whence some will have them so named from hopping in a little time betwixt a great distance in valuation. In a word, as elephants, if orderly, were themselves enough alone to gain, if disorderly, to lose a victory; so great parcels of this commodity, well or ill bought, in the crisis of their price, are enough to raise or ruin an estate.

In 1768, Rev. Arthur Young published *A Six Weeks Tour through the southern counties of England and Wales*, in which he comments upon hop cultivation in the area around Castle Hedingham, and documents some of the expenditure necessary for maintaining hop-grounds. The section goes:

> Around Henningham which is six miles from *Sudbury*, hops are much cultivated; more than two hundred acres grow near that town, and lett on a medium at about 3l. an acre, unless hired with a farm; in which case they are lett cheaper. The operations attending a crop, with the expenses, are as follows:

7000 roots at 5*s.*	1 15 0
Planting	0 5 0
Digging and dressing 12*s* each Note. This price of 12*s per* acre for digging, and their spit is nine inches, is exceedingly cheap; notwithstanding the looseness of the soil from constantly deep tillage.	1 4 0
Tying	0 12 0
Always two hoeings, at 4*s.* each, frequently three	0 12 0
Stripping	0 1 0
Picking, drying, and duty 1*l.* 10*s per* Ct and as they reckon 6½ Ct a middling crop, it comes to	9 15 0
3000 poles, at 1*l.*1*s. per* Ct. but they last six years, only the sixth	5 5 0
	19 9 0

Middling crop, 6½ Ct. and mid. Price 5*l.* 10*s.* a Ct. therefore 35*l.* 15*s*

Thus we see very large expenses attend an acre of hops, and when all is done, the crop is very precarious; subject to a variety of evils and accidents, which quite ruin it for some years; but in many, very great profit proceeds from them; greater, I believe, than any other vegetable.

The figures, as presented above, indicate a profit of £16 6s. per acre. Similar profits have been reported from the Hedinghams during the 1790s,

16 years after Young's above foray into Essex, the same author underwent, what he described as 'a Fortnight's tour in Kent and Essex', the report of which was published in the second volume of Annals of Agriculture, published in 1784. The Essex leg of the expedition was logged as follows:

I left Bradfield June 28th, 1784, and entered Essex by the beautiful grounds of Bulmer … To Castle Hedingham – Where, upon enquiry, I found their hops promised well; but the late continued rains had made them foul with weeds, by preventing the necessary hoeing. Their crop last year was the greatest ever known. Being informed that Mr Rogers, a saddler, had a remarkable one, I went to him, and found him sensible and intelligent; he gave me the particulars of it immediately from his memorandum-book; one acre yielded 24Ct. 2qrs. 19lb. being weighed itself in the presence of Mr. Storer, the hop supervisor; the prices at which they were sold were 5l. 13s. – 6l. 15s. – 5l. 5s. the average of these 6l. 2s. The field of four acres cost him above 120l. expences; it had been manured two years together, 50 loads of dung per acre; and again this year for the third in succession. He finds on experience that long raw dung is much the best, but takes care to put none of it on the hills. The average produce of all the hops at Hedingham, he calculates at 8Ct. per acre, and that the average price is 3l. 3s. the expences upon a medium are:

Rent,	£4 4 0
Poor rates,	0 18 0
Tithe 5s. per Ct.	2 0 0
Poles,	9 0 0
Dung,	2 10 0
Labour,	10 0 0
Duty,	4 10 0
	33 2 0

They are fond of long poles, even such as are two rod long, and 13 inches round at bottom, such cost 3l. an hundred, than which there can hardly be a greater error; an acre requires 400 every year. Mr. Rogers conceives that planting hops in the form of an espalier might probably answer; for he has observed, that when a pole falls, and another is obliged to be fixed in a lateral position, the hop always bears most when it grows thus horizontally.

Castle Hedingham came to be regarded as the 'capital' of hop-growing in Essex, and was evidently a renowned centre as far back as Elizabethan times, as Wm. Harrison indicates in the following:

But in divers places where rich men dwelled sometime in good tenements, there be now no houses at all but hop-yards and sheds for poles or peradventure gardens, as we may see at Castle Hedingham and divers other places.[4]

Other evidence of the early years of hop-growing in the Essex town comes from Cooper (1998), who reports that 'the Lorde's Hop Yarde' is marked on a plan of the parish of Castle Hedingham dated 1592. The record exists because it is included in a terrier of the land belonging to the Earls of Oxford. The terrier was drawn up by the surveyor, Israel Amyce, on behalf of Lord Burghley. In 1571, Edward de Vere, 17th Earl of Oxford, had married Lord Burghley's daughter, and in 1592 he had to sell the estate to his father-in-law in order to pay off his debts ! Cooper also notes that, in nearby Belchamp Walter, two acres of hop ground are recorded in the meadows beneath the Church on a map of 1605.

The fact that the unpredictability of the yield of the crop had to be set against fairly substantial overheads, was something that had been documented well over a century before Young's summation. This can be seen from the following report, which can be found under 'Notes and Queries' in *The Essex Review* of 1900 (IX p.173), where A. Clark, of Gt. Leighs, reports under 'Hop-cultivation':

The Commissioners of the subsidy, in the letter already cited, 5 Oct. 1625, say:- 'The price of hoppes which was the chiefest commoditie which farmers have used to make mony of att this tyme of the yeare is now so low for want of Vent [sale] either at Sturbridge faire [near Cambridge, held from 16th Sept. to 11th Oct.], or London [th]att Hoppe-Masters are in greate distresse of monie to paie theire labourers for pickinge, dryinge, and keepinge of their groundes, which is not done without a greate charge.

From the above, it is also evident that in some years, probably those which had produced a good harvest, there were problems associated with selling the crop at a viable price. The lottery of hop-growing is a topic that we shall touch upon again.

In the second volume of *A New and Complete History of Essex*, written anonymously by a 'Gentleman,' and published in 1769, there are several references to hop cultivation in various parts of the county, particularly in the Hinckford hundred. These entries are as follows:

Shalford … there are above sixty acres of hops ...
Finchingfield … the lands bordering on the river are Moorish (particularly near Waltham's Cross)
and are either pasturage or hop-grounds ...
Wethersfield … a great many hops are grown here…
Stistead … a few hops are grown here ...
Halstead … a market is held every Friday; and two fairs annually: one on the 6th May; the other on the 29th October; for cattle, hops and toys. The soil though various, is very fertile and produces many hops; for the excellency of which commodity this town is famous ...
Pebmarsh … the soil is of various kinds, but in general very fertile, and in some places produces very good hops ...
Lammarsh (sic) … some hops are grown here ...
Great Maplestead … it is of good light soil in general and produces many hops ...
Sible Hedingham … here is likewise about one hundred acres of hops, which in general for their extraordinary goodness, fetch a superior price …
Wickham St.Paul … some hops are grown here …
Twinstead … the situation is pleasant and healthy; the soil in general heavy, and produces very
good hops ...
Liston … this parish, as well as the last described [Borley] produces very good hops ...
Foxearth … produces some hops ...
Gestingthorp (sic) … .is of heavy soil, but produces some very good hops ...
Great Yeldham … the land is well enclosed and divided into arable, pasture, and meadow, interspersed with plantations of hops; for the goodness of which commodity this part of the county is remarkable.

In volume one (1770), we read:

Great Lees (sic) … there are some hop grounds in this parish.
Cressing … a few hops are grown here.
White Notley … a few hops are grown here.
Black Notley … a few hops are grown here.
Braintree … here is a market every Wednesday, well supplied with all kinds of necessaries, and at which vast quantities of corn, malt, hops, etc. are sold by sample ...
Bocking … a few hops are grown here …
Pantfield (sic) … a few hops are grown here …
Rayne … the manor house of Baynards in the north of the parish … between the road and the house where the hop-grounds are now.
Roxwell … there are some hop grounds.

The 'Gentleman' also documents, somewhat romantically, that beside the road to London in the parish of Moulsham, there were, 'several plantations of hops by the roadside; which, in the summertime, have a pleasing appearance, and frequently turn out to the considerable advantage of the planters.'

It would appear that, in certain parts of Essex at least, nearly every farm and grand house would have grown hops for their domestic brewing requirements. The above list contains one, or two, notable omissions, for instance, the 38 acres known to have been under the hop in Colne Engaine, in 1767. At around the same time, it is also recorded that in

the parish of Belchamp Walter there where two oast kilns to service the ten acres of hops.

In a survey of Essex field names, published in *Transactions of the Essex Archaeological Society* over the period 1895 – 1903, William Waller, shows that, at that time, around three hundred fields and enclosures throughout the county still retained names (such as: 'Hop-ground', 'Hop-field', 'Hop-garden', and 'Hop-piece') that connected them with their former crop. Fields bearing such names were to be found in all parts of the county, there being some in every hundred, which demonstrates how widespread hop-growing must have been in Essex. It would appear that nearly every parish in Essex must have had a hop-ground at one time or another (Gestingthorpe, alone, has no less than five 'field name' references).

Before the era of dwarf hops, and harvesting machine, one of the problems associated with hop-growing was always the requirement for seasonal labour during the harvesting period. In parts of Essex, at least, the problem was solved by resorting to the occupants of the local workhouse (Brown, 1969). During the 18th century, parish workhouses were more numerous in Essex than in any other county. Of the 120 workhouses started in Essex during the years 1720-26, most were in the textile areas of the county, where inmates could earn money from spinning, and the like. When textiles declined in Essex, during the 1770s, other work had to be found. The workhouse at Earls Colne had its own hopyard, and Colne Engaine's inmates were let out for hop-picking duties, as were those from the Chelmsford establishment, where large sums could be earned seasonally from the extensive hopyards around the town.

The situation in Essex at the beginning of the 19th century can be partly assessed from the second volume of Rev. Arthur Young's[5] General View of the Agriculture of the County of Essex, published in 1807, in which we read:

> The plantation of hops in this county is confined to comparatively a few parishes, the principal of these are the following: the two Hedinghams, Castle and Sible; the two Maplesteads; Halstead; the Colnes; Chelmsford and Moulsham; Shalford; Wethersfield; Finchingfield and Great Bardfield. They were formerly much more widely extended, but whether the total number of acres was greater than present, I am unable to say. They are probably now confined to soils most congenial to their nature, and which, from repeated trials and long experience, have been found most effectively to answer. They were early introduced into this neighbourhood and numerous grounds were planted with them in the parishes of Stibbing, Lindsell, Thaxtead, Broxtead, Dunmow, etc., but now there are very few remaining, certainly not twenty acres in the whole, and, I believe, not even ten … The Essex hops are not, I believe, esteemed altogether so strong as the Kentish; but in flavour they are, to my taste, by no means inferior, this may perhaps have arisen from early prejudice and prepossession. It is still however readily acknowledged that they are by no means comparable, in this last respect, to those of Farnham. … Thus it appears that, in regard to hops, as well as to cattle, sheep, soils, and other distinguishments, Northeast Essex naturally and agriculturally unites with the County of Suffolk.

Young then goes on to describe the result of the drainage, reclamation, and landscape work carried out by Mr Lewis Majendie at Hedingham marsh. This was the work for which Majendie won one of his two Society of Arts medals,[6] and the whole scene sounds quite idyllic. The paragraph says:

> The 55 acres at Hedingham called the Marsh,[7] are, and ever will be, under hops; but the higher plantations have lessened considerably by reason of Mr Addington's last hop duty; many plantations have been grubbed up; nor will any be kept that are not on such a soil as gives as near a certainty of an average profit, as so precarious a culture a admits. The Marsh is rendered much more valuable than it used to be, by a very capital improvement of Mr. Majendie's proposition, to whom half of it belongs, and who has the tithe of the rest: this was an embankment of the river which is the boundary of the Marsh on one side: though it was but a brook, yet it was so choked up with weeds and mud, that every rainy season caused floods, which damaged a large space of the hop-grounds, and prevented many operations from being performed at the right season, by waiting not only for the water, but for the ground drying: digging could not be executed till April or May. The bed of the stream is now cleared out to its width in ancient times, when it was probably formed as a fishery for the supply of the noble family [de Vere] who inhabited the castle. The earth from it is formed into a bank five feet high, and sloped gently to the hop-grounds, which are now planted on the slope, leaving only a space for a beautiful walk on the top, the hops on one side, and the river on the other, which winds so as to form a very agreeable garden object; the opposite bank being hops (unprotected however from the floods), and a very fine ash plantation of Mr.Majendie's, which margins the stream. Utility the most decisive here unites with decoration, to form a scene, which in a fine hop year, must be truly beautiful. Under the bank are four discharging trunks, with valves for letting out the superfluous water of the ditches, or for keeping it in, when a very dry year requires this bottom moisture for the hops.

Lewis Majendie, who lived at the Castle, was a noted amateur botanist, a Member of the Society of Arts, and sat on the Board of Agriculture. He was, together with Rev. John Howlett, a founder-member of the Essex Agricultural Society, which was formed in 1793, and was essentially a body of landowners who were given to experimental husbandry.

Apart from his horticultural prowess, Majendie gained notoriety in the latter years of the 18th century for paying, what was then considered to be the highest ever price for agricultural land in England; £182 per acre! Details are given in Young's *General View*, under a section entitled: 'Note in 1792'. In it we read:

There are a contiguous 55 or 56 acres here, which are remarkable for yielding a certain crop, failures being very uncommon; the soil is a moory marsh, improved into a rich loam on the surface; it appears, by writings, to have been a marshy meadow in the reign of Queen Elizabeth: there are in the immediate vicinity about 50 acres more; and it is calculated grossly, that 100 acres bring 5000l. a year, on average, to Hedingham. Two roods and 25 perches were lately sold by auction, and purchased by Mr. Majendie, at the price, though copy-hold, of 120l. which is in the ratio of 182l. per acre; equal to thirty years' purchase, at 6l. an acre: this is, I think, the highest price I have heard of land (not gardens) selling for in England; and much exceeds the price of sugar land in the West Indies.

The above paragraph formed the basis of an article by a Mr W.W. Hodson, which appeared in the *Chelmsford Chronicle* for 17 December 1880. Lewis Majendie patently purchased the land in order to increase the acreage of his hop plantation, and, in Young's discourse, we come across an observation that it is better to grow hops in large plantations, rather than small ones. Young adds:

There is circumstance observed here in the culture of hops, which, for those who make new plantations, is worth knowing: they succeed better in very large plantations than in small ones; for it is observed, that the parts of the contiguous 56 acres here, which are on the outsides, do not answer equally with the more central divisions, caused, it is supposed, by a want of shelter; and they think that hops form a better shelter than woods, or other plantations; if a man adds to his hop-grounds, therefore, he should unite them, and not plant distinctly.

Another eminent member of the Essex Agricultural Society was Rev. Bate Dudley, rector at Bradwell-on-Sea, who reclaimed some 150 acres of 'salt ooze' in the parish, and introduced hops to that part of Essex. Young's initial report on the Bradwell experiment is as follows:

Mr Dudley informs us, that hops have been lately introduced on the glebe of the rectory of the parish of Bradwell Juxta Mare, with a prospect of considerable success. The quantity and quality grown last year (I believe this was written in 1794, but am not certain) on twelve acres, refutes the general opinion, that the sea air is detrimental to this plant. Mr Dudley has not told us how long the plantation had existed when he wrote this account; we cannot therefore venture to indulge any sanguine expectations.

The venture did not meet with any lasting success, for, in 1801 Young reports that 'the greater part is now displanted, from what cause I know not.'

In the same work, Young also mentions hop-growing in nearby Finchingfield:

They have been cultivated many years at Finchingfield, and other neighbouring parishes; scattered colonies from the principal establishment at Castle Hedingham: Mr Abbot, chief tenant on the Spains-hall estate, made two plantations, in addition to an old one, which shewed that the intelligent farmer thought them profitable: a question, however, not very well decided.

According to Powell (1956), hop-growing was carried on in, and around, Chipping Ongar in the 17th and 18th centuries, and in 1639 there was a dispute, which was heard at Quarter Sessions, concerning a crop of hops that had been grown on 3½ acres of 'hopground' in the parish (ERO, Q/SR 308/22). It was also documented that, in 1842, a field of some 13 acres near Stanford Hall, to the west of Ongar, was named 'Hop Gardens', but that it was then being used for pasture (ERO, D/CT 327). There was a hop garden mentioned at Wallbury manor in the in the surveys of 1614 and 1648 (Powell says it may be the former hop ground near Spellbrook Bridge, mentioned in 1770; ERO, D/DB M30.33; D/DB T48), and in 1653, there was a hop ground on Hallingbury Hall farm, and another on Harps farm (ERO, D/DB M46), where a hop farm formed part of the glebe in 1783 (ERO, D/P27/1/5). In 1840, Lewis's farm, north of Harps farm included 'Hop ground meadow, field and pasture' (ERO, D/CT 156). Goodchild recorded that wild hops were still found growing in the Ongar area, when he put pen to paper in 1993 (see below). Powell documents other instances of hop growing in the Ongar Hundred, most notably at Abridge, where it persisted well into the 19th century. In 1841, for instance, there were still 1½ acres of land under the hop in Abridge, and it is not without significance that commercial brewing was still being carried out there at that time (Peaty, 1992). There had been reference to a hop garden in Abridge in 1727 (ERO, D/P 181/8/1).

In the 1807 edition of Young's *General View*, there is reference to Charles Vancouver's table of produce, dated 1790.[8] Among other data, there is a record of the rents paid for hop ground per acre. It demonstrates, if nothing else, the premium commanded by Wethersfield and Castle Hedingham land at that time.

The table opposite clearly shows that before the close of the 18th century, the area of Essex over which the hop was grown had become considerably restricted, and that only 520

Paris	Acres	Rent/acre (shillings)
Castle Hedingham	120	60
Wetherfield	125	40
Geat Yeldham	-	31.6d
Bocking	30	30
Braintree	30	30
Bulmar	-	30
Chelmsford	-	30
Earls Colne	40	30
Finchingfield	40	30
Great Henney	-	30
Great Maplestead	25	30
Halstead	-	30
Little Maplestead	-	30
Sible Hedingham	110	30
Pebmarsh	-	20

acres were under hops. This is almost certainly an underestimation, because, although Vancouver does not mention any more hop-growing localities in Essex, Howlett's comments lead us to believe that there must have been some. Cooper (1998), for example, reports that, at the time of Vancouver's report, there were 12 acres of hops in Stisted, and about 90 acres in other parishes near the Hedinghams.

At around this period, the hops grown in the Maplesteads were almost as highly regarded as those from the Hedinghams, something that was alluded to by Vancouver when he visited the parishes:

> The valleys are chiefly occupied in the culture of hops, which is well understood and practised to advantage, although the grounds are not so productive as they are generally found to be in the marsh of Castle Hedingham.

Vancouver deals in great depth with the economics of hop-growing around Castle Hedingham, particularly the marshy ground, about which he avers:

> On the west, the parish is bounded by the river Colne; along whose course is a considerable tract of meadow and rich hopland; the culture and value of the produce per acre, of the latter, taken on an average of ten years is as follows (see over).

Vancouver then says:

> About forty acres of ash, and Spanish chestnut have been very judiciously planted in this parish, for hop poles; the soil for the chestnut is as well chosen as the country would admit of, being that of a sandy loam. The ash upon the rich moory land promises extremely well; and the whole strongly indicates the great care and skill of the owner.

The above tabulation indicates that 400 new hop-poles were required annually per acre, a considerable amount of wood. At Castle Hedingham, 40 acres of woodland supplied this need; as we have seen, Majendie grew ash near the river, and Spanish chestnut around the Castle. There was also woodland specifically for hop-poles at Sible Hedingham, Sturmer and Finchingfield, whilst the hop-grounds around Chelmsford were supplied with wood from Boreham

The respectable profit, £13 15s. 6d per acre, indicated above, may partly explain the commercial value of the 'rich hop-lands' beside the Colne at Castle Hedingham at that time. It does rather seem as though Vancouver was given to exaggeration when he was reporting on the profitability of hops, and not just in the Castle Hedingham area. In another part of the county, the neighbourhood of Writtle and Chelmsford, he maintained that, averaged over a seven-year period, one

The Hop Ground per Acre

	Dr	Per contra	Cr
To interest accruing annually upon the first cost of the stock of poles, viz. 2,500 at 40*s*. per 100, being the value of the poles at the third years growth of the plant	2 10 0	By 7cwt of hops at 6l. 3s. per cwt, being the average produce and value per acre of the Castle Hedingham hops for the last ten years	43 1 0
To the annual supply of 400 at 40s. per 100	8 0 0	By 350 refuse poles at 6s. per 100	1 1
Labour by contract, including digging, dressing, poleing, tyeing, hoeing, moulding, raking, laddering, planting dead hill and barrowing dung.	3 10 0	By old bines	1 2 6
		By profit in selling bags as hops	2 18 6
Manure	3 0 0		
Picking 7 cwt. the average produce per acre of Castle Hedingham Marsh for ten years	4 4 0	Total annual value of the produce per acre	47 3 1
Drying and bagging the said 7 cwt	2 2 0		
Duty	3 10 0		
Tythe at 5s. per cwt.	1 15 0		
Rent	3 3 0		
Poor's rates 10s. Other parish rates 3s. 6d.	0 13 6		
Three bags weigh 18lb each at 2d. per lb including the making.	0 10 0		
Interest upon the first cost and annual supply of baskets, stools, pitches, barrows, ladders, forks, and other small implements.	0 5 0		
Twitching and ditching.	0 5 0		
Total annual expense per acre.	35 7 6		47 3 1
Total annual net profit per acre.	13 15 6		

acre of hops cost £29 5s. 6d. to grow, and were saleable for £42 5s. 0d., showing a profit of £12 19s. 4d. It is evident that not everyone agreed with Vancouver's representation and interpretation of the figures. Rev. John Howlett, for example, thought that the Hedingham figures were grossly exaggerated, and treated them accordingly, before going on to give, on the authority of 'a very respectable gentleman' of Wethersfield, a statement of the results of cultivating ten acres in that parish for the seven years ending 1795. These figures showed a profit of only £5 10s 1¼d per acre, and, as Howlett said, they represented a far more realistic summary of the situation:

> This Wethersfield account differs very materially from those of Hedingham. The annual value we see, is only 28l. 16s. 9¼d. per acre; the total annual expense 23l. 6s. 8d. leaving a nett profit of 5l. 10s. 1¼d. which, every thing considered, is, I make no doubt, very little wide of the fact, and affords ample encouragement to culture.

Howlett also documents some figures from other growers, including another one from Wethersfield:

> From the books of a hop-planter in the parish of Wethersfield, I find the medium price for seven years is only 4l. 10s. 4¾d.; and these hops are universally allowed to be of equal, if not superior quality, to those of Castle Hedingham marsh.

By complete contrast, Mr Barker Myhil, of Castle Hedingham reports that during the years 1785-1791 he averaged 12 cwt. per acre, and that the average price attained per cwt. was £6. On this basis his profit per acre worked out to be a

Year	Quantity			Price		
	Cwts.	Qrs.	Lbs	£	S.	B.
1790	8	2	0	5	0	0
1791	14	0	26	5	12	0
1792	18	1	0	4	10	0
1793	0	2	22	11	4	0
1794	14	2	0	4	17	6
1795	14	1	19	5	5	0
1796	9	1	19	5	12	0
1797	17	0	15	5	5	0
1798	3	1	14	10	0	0
1799	6	2	9	14	0	0
1800	3	0	4	16	0	0
1801	14	1	14	5	0	0

phenomenal £38 5s. 0d. per acre. Myhil then calculated that if 20 cwt. per acre could be attained (which was not unheard of), then a handsome profit of some £76 per acre would ensue.

Myhil was responding to Arthur Young's plea for genuine information relating to claims of the enormous profits to be made by growing hops. Not surprisingly, Young repeatedly questioned the true profitability of growing hops. As a background to this, one should read Ashley Cooper's *Our Mother Earth* (1998), which has a chapter on 'Hops, Teasels and Flax,' in which there is a quote from Young's *Annals of Agriculture*, XVIII, 1792:

> The culture of hops at Hedingham is perhaps as famous as in any part of England;[9] the quality of those at Farnham are superior, but the cultivation at Hedingham is allowed, by all who have viewed them, to be managed to great perfection … I had heard, in conversation, more than one story of enormous profits made here by this article, which made me more desirous of using the present opportunity to ascertain the fact, at least with more precision than common report arrives at. Mr Majendie has not only a considerable property in four hop gardens, as landlord, but also the tythes of the parish, consequently was perfectly able to give me the intelligence I wished for, however he did not rely on himself for the articles of the culture, but carried me to the plantation of Mr Barker Myhil, one of the most considerable hop planters here, and who very obligingly answered all my questions.

The seeds of doubt, regarding the true profitability of hops, had been sown in Young's mind several years previously, for, as we read in his 1771 Farmer's Tour:

> The general opinions concerning hops are extremely various; some have an idea of being prodigiously profitable, while others assert it to be a culture that answers poorly; and this diversity is found even in the midst of the hop grounds of Kent. A want of knowledge in these points is generally owing to the cultivators not keeping regular accounts.

One thing agriculturalists of that time were agreed about, was that yield (and, hence profit) would vary greatly with soil and the general situation in which the hops were grown. Vancouver, for example, states that 'the average annual produce, and value per acre for the last seven years of the hop culture in the neighbourhood of Chelmsford, stands at £12 19 4.'

This led Young to comment in 1807:

> Upon the whole, I am inclined to think that this species of culture is not so profitable as is generally imagined. The same capital employed in raising corn would at least be equally productive, and less precarious."

Nothing illustrates the fluctuations experienced by hop-growers better than a memorandum presented to Arthur Young by John Vaizey of Blamsters Farm, Halstead, who cultivated two acres of hops over a period of twelve years. The land was 'a good piece of corn land; a narrow cut off the bottom of a hill, lying on a considerable descent.' The figures are above.

As we can see, the yields varied from under 1 cwt. per acre in the poorest year, to over 18 cwt. in the best. Vaisey then

reports that 'in 1802, one acre out of two was left, and produced about one hundred weight and a half.' He also informs Young that 'Mr Sperling, at Dynes Hall, grubs up one -tenth of his hops every year …'

It rather looks as though 1793 was a bad year all round for hop-growers in this part of Essex, for in the *Annals of Agriculture* for 1794 (vol. XXII), Arthur Young gives an account of the situation in Castle Hedingham the previous year. On 5 August, he was on his way down to Sussex, when he called on Lewis Majendie, and, as a result of his visit, penned the following in his diary:

> The crop of hops this year is wretched beyond description: what the crop is expected to produce, may be judged by comparing the duty, which last year brought 162,000l. with that which it is expected to bring this year, which is now (August 5th) laid at 40,000l. In October it fell lower than 20,000l.

Boys (1793), reported on a journey, made in 1792, through a number of counties in southern England, including Essex. The account contains some curious details, and gives a great insight into country life at that time. The entry for 9 July reads:

> Proceed to the Hedinghams; in our road go some ploughmen, who say they work for 16d. per acre, being found small beer, and a pint of ale per day; a method we never heard of before; but an excellent one where it can be adopted. They work from six in the morning till three in the afternoon.- There is a large plantation of hops here, which are very strong, except in the middle of the vale where the floods in April injured them. They are perfectly free from vermin, and run poles near thirty feet long; soil a black moor, with ditches of water between the hills.

The importance of the hop in the local economy may be discerned from the coverage accorded the crop in the newspapers of the day. Such articles invariably made reference to the current price at market, and the general state of mind of the growers. To illustrate this, we find that the *Bury and Norwich Post* for 11 October 1820 contains the following: 'At Braintree Fair on Monday and Tuesday … hops sold freely at four to five pounds a cwt.[10] in pockets.'

The following year (15 August 1821), the same publication reports:

> At Castle Hedingham Hop market on Monday last, very little business was done, only two tons being sold at three pounds seven pence a cwt. which scarcely paid for picking. Some planters declared they would not gather any more but would cut the vines down.

The last, doom-laden, statement, seems to herald a disillusionment with hop cultivation in this part of Essex, a sentiment that was at not apparently shared by an unnamed landowner at nearby Gestingthorpe, who, according to the following advertisement in the *Bury and Norwich Post* of 20 June 1821, had recently built a new hop-kiln:

> Capital farm to be let at Gestingthorpe on lease with farmhouse, two covered ricks, 314 acres comprising 20 acres of pasture and 10 acres of hop ground with newly erected kiln for drying hops … For terms apply Frost & Stedman, Sudbury.

As if the hop-farmers in the Hedinghams were not experiencing enough difficulties at around this time, a violent storm over Castle Hedingham, on the night of 31 August 1820, wreaked some £3,000 of damage to the hop-gardens there.

One of the most sensible and philosophical warnings about the risks involved in the cultivation of hops comes from the *Instructions for Planting …* written anonymously for The Dublin Society in 1733. It reads:

> In failing years if your Quantity be small they are sure to sell at a high Price; it may be your good Fortune, that when other Hop-grounds generally fail, yours may prosper … and if this should happen you may gain more by such a crop in one year than others may in Three … a year of scarcity is sometimes as Beneficial to the Planter, because it will serve to consume the old stock of hops, and keep up the Price of New Hops for several years following, which will make sufficient amends for failing years, and you must observe that in Years when Hops fail, you avoid a great Part of the Charge, which is that of picking and drying ...

It wasn't just Castle Hedingham that produced top grade Essex hops in those days, as can be ascertained from our 'gentleman', writing on Essex history in 1769. He notes that there were then in Sible Hedingham 'about one hundred acres of hops, which, in general, for their extraordinary goodness fetch a superior price.'

Philip Morant, writing in 1768, says that, in his time, Heding -ham hops were 'reckoned the best – in this county at least.'

Highly though their products were regarded, farmers in the Hedinghams were not immune to the difficulties that faced hop-growers throughout the land, something can be evidenced from various observers over the years. For instance, the aforementioned 'Gentleman', intimates that hop-growing in the Hedinghams was actually going through some sort of revival during the last decades of the 18th century, and, as an example, he documents the reinstatement of the annual fair: 'A hop fair is lately revived and is likely to become more considerable, as every inhabitant of the parish are dealers therein.'

The fact that the fair was being 'reinstated' strongly suggests that the industry had suffered a decline in fortune some time in the past, but that there had been a revival. Relating to the above, a written agreement between local hop-growers and the Lord of the Manor (L.Majendie), 'for a fair to be held in the village on Monday 25th October, 1790', is still preserved in the Essex Record Office (ERO), in Victoria Road, Chelmsford. Although the fair lasted for another hundred years, or so, the industry in this part of Essex had reached its climax, and was embarking upon a terminal decline. In 1785, it is reported that there were twenty-six hop-growers in the parish of Castle Hedingham, whereas in *Pigot's National Commercial Directory* of 1832, there were only ten persons described as 'hop-planters' living in the two Hedinghams. Brown (1969) documents that in 1825 distressed growers in Castle Hedingham pressed for a downward revaluation of their holdings. Patently, the situation did not improve, for, throughout the years 1830 – 1835, documents prepared for revenue purposes at the Excise Office in London, show that there were then only nine or ten growers there, chief among whom were Messrs. Lewis Majendie, Ashurst Majendie, Wm. Leonard, and Isaac King.

In the Commission of Excise Inquiry of 1835, the total number of acres of land in Great Britain, under the cultivation of hops, is given for the year 1833. In Essex, the number of acres in each hop-growing parish was given as: Lt. Bardfield (4); Alphamstone (3); Gt. Bardfield (1); Bocking (4½); Gt. Braxted (2¼); Coggeshall (1); Colne Engin (13½);[11] Colne Earls (12); Finchingfield (11¼); Gosfield (1½); Halstead (39¾); Heybridge (½); Castle Hedingham (61¼); Sible Hedingham (47½); Lamarsh (1); Gt. Maplestead (13); Lt. Maplestead (4); Panfield (15); Pattiswick (1½); Roxwell (3½); Gt. Saling (2); Shalford (25); Stisted (7¾); Thorrington (¾); Toppesfield (2½); Twinstead (1¾); Weathersfield (92); Wickham St. Pauls (1); Writtle (9). All except Lt. Bardfield (which was in the Cambridgeshire collection) were in the Essex collection - a total of 378¾ acres under the hop in that county. There must have been a few more, because, as an example, Pigot's 1832-33 *Essex Trade Directory* reports in the entry for Feering that: 'a small extent of land is under hops.'

There was still a certain degree of optimism surrounding the hop industry in Essex, at the time of the Inquiry report, as can be seen from the following in the *Bury and Norwich Post*, of 9 October 1833:

> At Braintree fair on Wednesday last there was the largest show of stock ever remembered, nearly 10,000 sheep were penned, they sold briskly at higher prices, hops supply better than expected and tolerable sales were made at 7l. to 10l. per cwt.

We get an idea of the extent of the industry in the Hinckford Hundred in the year 1836 from the Tithe Commutation Awards, of which Waller (1902) says:

> The soil of the Hundred appears to have been congenial to the growth of hops, 'hop-grounds' and 'hop-gardens' being often named. But, for some reason or another, the value of the tithe of hops was very differently assessed from one parish to another. The maximum was attained in the case of Panfield, where it was fixed at 17s. per acre; in Gosfield and Halsted (*sic*), it descended to 8s., the intermediate stages being as follows:- Finchingfield, 13s. 6d.; Shalford, 13s. 4d.; Wethersfield, 12s.; Sible Hedingham, 10s.; and Great Maplestead, 9s. The award for Finchingfield contains provisions with regard to hop-gardens existing, future, and disused; and in Halsted their value was put on the same level as that of land used for market-gardens. The whole area definitely stated to be under hops was something under three hundred acres, of which sixty-two were in Wethersfield parish, fifty-two in Castle Hedingham, and fifty-one in Halstead.

The 1857 Select Committee Agricultural Returns report concentrated mainly on Kent and Sussex growers. By 1890 the report does not mention Essex and Suffolk, but there is an overview of the acreage of hops county by county, over the period 1866-1889. The acreages given for Essex are as follows:

1866	137	1878	37
1867	122	1879	35
1868	110	1880	18
1869	99	1881	16
1870	86 (26)	1882	14
1871	63 (4)	1883	10
1872	69	1884	7
1873	80 (3)	1885	2
1874	49	1886	1
1875	57 (1)	1887	1
1876	54	1888	1
1877	42	1889	-

These annual returns show, quite conclusively, the steady decline of the hop-growing industry in Essex during the second half of the 19th century. In all of these years, there were only three (1872, 1873, 1875) in which the acreage under the hop showed an increase, and, in each instance, the increase was minimal. *The Victoria County History of Essex* (II) points out that by the middle of the 19th century hop-growing had died out in all but two localities; at Tye Hall, Roxwell, and at Castle Hedingham, where, after having been carried out continuously for at least 300 years, cultivation of the hop ceased in 1887. Since then, no hops have been grown in Essex, as was confirmed in *The Essex Review*, IX, 1900, p.131, which says: 'North Essex is said to have abounded greatly with hops; there are now none in the county. The last acre was returned in 1887, the return for the previous year being of five acres'.[12]

Norris, writing in 1906, says about Roxwell:

> It is an interesting fact that the old people in Roxwell can remember hops being grown at 'Tye Hall'[13] as late as the middle of the last century, and in Writtle itself there is a field at 'Guys Farm' which is still called 'The Hop Garden'.

Certainly, it would appear that the hop industry in the Hedinghams had all but disappeared by the early 1880s, for Kelly's Directory of Essex of 1882 records no hop growers, nor hop merchants in either village. Under Castle Hedingham, 'the chief crops are wheat, barley and mangold wurtzel,' whilst in Sible Hedingham, 'the chief crops are wheat, barley and peas.'

With the disappearance of the cloth industry, rural backwaters, such as the Hedinghams, were obliged to adopt cottage industries, in addition to agriculture, in order to maintain the local workforce. In Castle Hedingham, straw-weaving and basket-weaving provided a much-needed alternative employment to hop-growing, which was, of course, a highly seasonal business. The osiers for basket-making were grown on land near to the River Colne, which was also used extensively for growing hops. Another cottage industry to flourish during the 19th century was the pottery owned by the notorious Edward Bingham (1829-1901), one of the characters of Victorian Castle Hedingham. Bingham made pseudo-medieval and pseudo-Tudor objects, which have sometimes been mistaken for authentic 15th-, 16th-, and 17th century wares. Bingham produced some massive pieces of pottery, which are certainly not to everyone's taste; some of his 'Essex jugs', which are often referred to as 'Hedingham ware', are up to three feet high. In addition to his pottery business, Bingham was also an author, and local historian, and, to the end, was in possession of a vivid memory about the latter days of Castle Hedingham's hop-growing past. For instance, he related that a cottage known as 'Bangslappes' in Station Road was a receiving house for hops, and that its curious name emanated from the sound of threshing that issued forth from it. Bingham also reported that in, and around, Castle Hedingham, 'the hops were picked by straw-plaiters, who regarded it as "a kind of out-door holiday". Each got about ten days work at seven pence a day, with half a pint of beer all round on Thursdays.'

Hops were grown in Great Maplestead until at least 1870, when it is known that the hop-kiln at Lucking Farm was used there that year. Remains of oast houses can still be seen at a few locations in Essex, notably at Blackmore End and at Beazley End, near Wethersfield, but there are few examples left in the county. Most were apparently in a state of decay by the end of the 19th century, as this somewhat valedictory statement from Barrett (1892) indicates; it appears in the section on 'Sible and Castle Hedingham';

> Decaying oast-houses, somewhat different in type from those in Kent and Sussex, tell the tale of the hop-gardens of Essex that are now no more. In this district the cultivation of the hop (once so celebrated) died hard, but the last hop-garden has now disappeared, never to be revived.

The decline in hop-growing in some parts of Essex probably commenced during the early years of the 17th century, and can be mainly attributed to the crop becoming an unprofitable one to grow in those areas. Apart from labour costs, and the necessary expenditure on poles, the hop has always proved to be a notoriously fickle crop, in terms of its ability to produce a consistently viable yield. These facts are borne out by several reports, but perhaps the best illustration of the problems that faced the hop farmer can be seen from the national returns for a couple of consecutive years near the end of the 19th century. In 1881, average output was around 7cwt. per acre, but in 1882, this collapsed to around 1.8cwt. per acre. This resulted in a concomitant increase in the cost of the crop from an average of £6 6s. per cwt., in 1881, to around £18 5s. in 1882. With this sort of price instability, it was small wonder then that, by the early 1860s, British brewers had started to look at the feasibility of importing hops from Germany. This extreme unpredictability, caused by a mixture of inclement weather, pests, and a number of fungal and viral diseases, disheartened all but the most committed grower. When duty on hops was abolished in 1862, the crop also ceased to be the subject of import duty, thus permitting competition from foreign hop-growers. This resulted in British brewers using an admixture of indigenous and foreign samples (before 1850 British hops had satisfied the demands of British brewers), and by 1870 it is estimated that one-third of British brewers' hop requirements were coming from overseas.

In an extensive review of the county, Hope-Moncrieff (1909) pays scant attention to Essex's hop-growing past, and his sole remark about the crop is that 'the only physical remnants of the, once plentiful, cultivation of hops in Essex are the numerous oast-houses in the Colne valley.'

In *Heart of Our History* (1994), Cooper states: 'In the Hedinghams and Maplesteads hops were grown until at least the 1850s and in 1848, a James Rippingale of Gestingthorpe, was still listed as 'a beer retailer and hop merchant.'

Hop-growing might have lingered on into the late-19th century in the Hedinghams, and remained in the memories of some of their inhabitants for some while afterwards, but in other areas, the hop was soon forgotten. Witness William Evans' 1886 treatise on Halstead, which contains no mention of the plant at all, even though some of the properties that contained known hop-yards, such as Blamsters, are dealt with in some detail in the book.

In the *Discovery of Old Essex*, Richard Pusey (1985) has a short chapter devoted to The Bell, in Castle Hedingham, of which he states: 'The inn was the appropriate meeting place each year for the hop-dealers who gathered annually on Crouch Green, the site of the ancient market place and fair.' He also documents a press advertisement dated '31 July 1787', which reads:

> This is to give Notice, that the annual HOP-MEETING will be as usual at Joseph Tomlinson's, at the BELL INN, on Monday the 6th of August next. All gentlemen that favour him with their company will much oblige their humble servant.
>
> Joseph Tomlinson
>
> Dinner at Two o'clock

Tomlinson was the publican at The Bell for 32 years, from 1772 – 1804 (the year before Trafalgar), and, as we shall see, it is evident that the annual Hop Growers' Dinner continued to be held at the Castle Hedingham Bell until at least the 1860s.

It was at the August hop-meeting that the pre-harvest prices for that particular seasons' crop were fixed. At this time of year, pricing was carried out whilst the crop was still on the bine, as can be deduced from the following article which appeared in the *Bury & Norwich Post* for 12 August 1795: 'At the annual Hop Meeting at Castle Hedingham there were many gentlemen, merchants, factors and growers present and several tons of hops on the growth in Essex were sold at up to 4l. 10s. a cwt.' Of course, not every year produced a satisfactory year for the growers, as a report from the Chelmsford Chronicle of 10 August 1827, indicates:

> At the annual hop meeting held at the Bell Inn, Castle Hedingham on Monday last upwards of forty gentlemen, hop growers and factors attended. Several lots of new growth were offered for sale, but the biddings were too low for the growers to accept unless for two parcels which were sold at from £4 13s 0d to £5 15s 0d per cwt.

Another press release indicates the lasting popularity of the meeting, and also hints at the propensity of the early-19th century populace to gamble on almost anything:

> On the 6th August 1833, the Annual Hop Meeting was held at the Bell Inn, Castle Hedingham when a numerous company of gentlemen hop growers, merchants and others sat down to a substantial dinner. At the business meeting which followed bargains were made on the growing crop at 100s. and upwards per hundredweight. Bets were made that the duty would not exceed £175,000.

The abolition of hop duty in 1862 put paid to some of the fun at the hop meeting, as this extract from the *Halstead Gazette* of 7 August 1862 shows:

> The annual hop meeting at Castle Hedingham took place on Tuesday, 5th August. Owing to hop duty being taken off there was not so much interest attached to it and no betting took place. A small party sat down to an excellent dinner provided by Mr Kinght of the Bell Inn; a half ton of hops of the coming crop was sold by one gentleman present at £6 per hundredweight. The hop plantations in the neighbourhood at present are in a promising state.

So, although Hedingham was coming towards the end of its hop-growing era, all was not yet doom and gloom. Compare the above, though, with an extract of 8th August 1861, from the same newspaper:

> The annual hop growers meeting was held at the Bell Inn, Castle Hedingham on Monday last and was attended by merchants, hop growers and others interested. No hops were produced or even any "beer" and the prospect of the coming crops was very unsatisfactory.

Slightly further afield from the core region of Essex hop grounds, Smith (1925) reports on the hop-growing activity at Havering Park, in the west of the county. Over the period 1818/19, the leases on the two farms in the Park (a total of some 800 acres of 'rich meadow arable and pasture'), were taken on by one James Ellis, 'a great hop grower, of Barming, in Kent' He was the son of a small farmer at Burwash, Sussex, and, according to Smith, 'by great physical and mental energy, strong natural talent and indomitable perseverance, he surmounted every obstacle to his progress, and ultimately became the largest hop grower in the world, besides acquiring considerable landed property.' Ellis planted hops largely at Havering Park, where, the land was

tithe-free, a considerable financial advantage. In Smith's time oasthouses could still be seen in the Park. The report goes on:

> The prospects of these hops are frequently mentioned in the Essex papers of the 'Thirties.' He died Feb.14th, 1845, in the 76th year of his age, having personally superintended the whole of his plantations to the last. In the following year, however, a very poor account is given of Havering hop grounds; most had been ploughed up, and there were not more than 50 acres left.

By the time that Gibson wrote his *Flora of Essex* in 1862, hop-growing in Essex was in its terminal stages, and the entry for 'hop' on p.280 merely reads as follows:

Hedges P. VII[14]

1. Walden. frequent, Bartlow, Clavering, Ashdon
2. Halstead. common - Braintree
3. near Dunmow - Chelmsford - near Writtle
4. Temple Mills, Stratford - Woodford - Epping
5. Great Warley
6. Hedges between Prittlewell and Rochford - Southend
7. Kelvedon, Inworth, Braxted - Langford
8. Dedham - Colchester - Berechurch.

In addition to the localities already mentioned above, the following towns and parishes are known to have supported hop-grounds at one time, or another: Audley End, Beauchamp Roding, Chickney, Colchester, Good Easter, Kelvedon, Terling, Waltham Abbey, and Witham.

Over the years, hops became part of the folklore of some of the counties where cultivation occurred, as can be ascertained from Pollington (2000), who maintains that sprigs of the plant decorated farmhouse hearths for luck in Essex, Kent and Hampshire.

Just after the Second World War, there was a brief, successful, resurrection of hop-growing in Essex, an event that was ultimately attributable to disease problems in the hop gardens of Kent. The giant London brewers, Whitbread & Co., in particular, were experiencing severe wilt problems in their huge Beltring Hop Farm, at Paddock Wood, and they managed to persuade Robert Goodchild, a farmer at Codham Hall Farm, Warley, near Brentwood, to cultivate plants for them. Goodchild used to make regular visits to Whitbread's Chiswell Street Brewery, in London, in order to collect spent grains for animal feed, and in 1946 he initially agreed to grow four acres of the Fuggles variety, on some south-facing hillsides on his land. The first crop was harvested in September 1947 (with the aid of German POWs as pickers!), and gave a yield of around one ton per acre. By 1949, this had reduced to thirteen hundredweight per acre! Cultivation at Codham Hall eventually extended to ten acres, with the ground being regularly manured with cow and pig waste from the farm, and slag from local gasworks (compare this with the age-old use of shoddy from the woollen industry). For the first couple of years, the hops were dried at Paddock Wood, but thereafter Goodchild had his own drying facility on the farm. In 1954 and 1957, hops from R.Goodchild, Brentwood, Essex, won awards at the Brewers' Exhibition at Olympia, but after Goodchild had 'received an offer he couldn't refuse', from his factor for his hop acreage (under the Hop Marketing Board quota scheme), the enterprise ceased in 1964.

As an epitaph to hop-growing in Essex, I can do no better than quote from Goodchild, who, writing in 1993, said:

> Little now remains of this once specialised part of our agriculture, but in many hedgerows throughout the County may still be found growing the prolific hop plants. At Halesford Bridge, Ongar, the bines entangle a fifteen metre length of hedgerow close to the River Roding. At Yeldham and the Maplesteads the hops grows where it may. Of the once many small hop oast houses which prepared the hop for the brewer, few remain. Those that may still be found are all within sight of each other in the Parish of Wethersfield. At Mumford's Hill, Hyde Farm at Blackmore End and also a double kiln oast house at Codham Little Park Farm, Beazley End. All three kilns are different with the exception that they are all peg tiled roundels springing from a square base. All are now in residential use, the latter one being the only one being listed as a Grade II building. The cry of 'Pull no more bines,' has gone up for the last time in Essex.

Suffolk

According to Trist (1971), Suffolk can claim to have been one of the first counties in England to experience hop cultivation, a sentiment that had also been forwarded by William and Hugh Raynbird, who in their *Agriculture of Suffolk* of 1849, declared:

> From the frequent directions Tusser gives respecting the management of hops, we may infer that almost every person who had a proper spot cultivated some at least for their own use, and it is probable that Suffolk was the first county in which they were grown.

Chronologically, the first evidence relating to the hop in Suffolk comes from middle-late Saxon times, as reported by Murphy (1991). Considerable quantities of charred fragments of hop were recovered from a 10th century storage pit,

uncovered during excavations at The Buttermarket, Ipswich (site IAS 3201). It was evident that the pit contained re-deposited, fire-damaged material. The fill material contained large charcoal fragments, and other charred remains of plant origin. The charcoal mostly represented remnants of structural wood, whilst the lumps of charred, non-woody plant material consisted mostly of the fruits of crab apple (large fragments of charred fruits), and fused masses of hop fruits. The hop fruit debris manifested itself as coke-like, or tarry masses, often up to 50mm. diameter in size, and some of these lumps showed evidence of embryo plants. Charred textile fragments in the sample indicated that the crab apples and hops had probably been stored in sacks, and fragments of what were patently oak staves, suggested that part of the original hoard may have been stored in barrels. Other crop plant remains, principally rye grains, barley grains and flax, were recovered as well, but this pit infill contained the remains of a crab apple and hop store, rather than a grain store. As Murphy says:

The abundance of hops in this 10th century deposit is of particular interest. At Haithabu [northern Germany] the frequency of hop finds increases markedly in the 9th –10th century, and at the same excavation remains of malt were recovered (Behre, 1984). The cargo of hops from the Graveney, Kent, boat (Wilson, 1975) is similarly dated to the 10th century. Given the clear continental documentary evidence for hopped beer at this time, and the extensive trading contracts around the North Sea coasts it seems highly probable that the charred hops from this site were intended for use in brewing.

One of the earliest records relating to beer in Suffolk is to be found in the customs accounts for the port of Ipswich, which tell us that, during the period between February and September 1358, some 16 lasts (= 192 barrels) of beer entered the port on ships from Holland and Zeeland (PRO E122 193/33). This was at the beginning of a period when considerable quantities of Dutch beer were being brought into various East Coast ports (Kerling, 1954). If evidence from neighbouring ports, such as The Hythe, Colchester, is taken into consideration, then it is likely that hops would fairly soon replace beer as an import, as some of the local population learned how to brew their own beer.

In the 'Surrey Report' in Baxter's *Library of Agriculture* published in 1846,[15] it is recorded that hop culture went from Suffolk into Surrey around the year 1600, which more or less accords with the information imparted by John Aubrey's early 18th century history of Surrey, where, in a section dealing with the town of Farnham, we read:

About this Town are Hops in as great plenty as in any Part of *England*, if not greater. Old Mr. *Bignell's* Father was the first that planted Hops here, which Husbandry he brought out of *Suffolk* 76 Years since: And ever since they have planted larger Quantities; so that now about this Town are no less than 300 Acres of Hop-Yards.

As one would expect, there are relatively few pre-18th century records of hop-growing in Suffolk, and one of the first is attributable to Wm. Bullein, who, in his *Bulwarke of Defence*, published in the middle of the 16th century, mentions that hops were then being grown 'at Bruisyard, near Framlingham, and at many other places.' In a later work, *The Governement of Health*, published in London, in 1595, the same author provides an exposition as to the benefits of the hop, and confirms that cultivation of the crop was widespread in Suffolk. *Governement* takes the form of a dialogue, a style of prose popular at that time, and in answer to the question; 'What is beere or ale ?', we find the following:

Hum. Ale doth engender grosse humors in the body, but if it be made of good barly mualt, and of wholesome water, and very well sodden, and stand five or sixe daies, untill it be cleare. It is verie wholesome, especially for hot cholericke folks, having hote burning fevers. But if ale be very sweete and not well sodden in the brewing, it bringeth inflammation of winde and choler into the belly: If it be very sower, it fretteth and nippeth the guts, and is evill for the eies: To them that be verie flegmaticke, ale is very grosse, but to temperat bodies it encreaseth bloud: It is partely laxative, and provoketh urine. Cleane brewed beere if it be not very strong, brewed with good hops, clenseth the body from corruption, and is very wholesome for the liver, it is an usuall or common drinke in most places of England, which indeede is hurt and made worse with many rotten hops dried like dust which commeth from beyond the sea. But although there commeth many good hoppes from thence, yet it is knowen that the goodly stilles, and fruitfull grounds of England, do bring forth to mans use, as good hops as groweth in any place of this world, as by proof I know in many places of the countrey of Suffolke: whereas they brewe their beer with the hoppes that groweth upon their owne grounds.

The final sentence seems to imply that most beer-brewers in England used imported hops, rather than the home-grown product. We certainly know that hops were being imported into the East Coast ports at this time.

In 1618, Robert Reyce, an antiquary and man of letters, wrote a short account of Suffolk which is preserved in manuscript form in the British Museum (*Jermyn M.S. Harl. Lib.8200*). The work is called *A Breviary of Suffolk*, and in it there is a paragraph dedicated to the hop:

I may nott here next to the corne omitt to speake of our hopps, which when they were first perceived to delight in our soile, well was hee that could entertaine this plant, and of many, even in the best meadow ground which they had, they sett it, where in short

time it mightily increased, others draining unprofitable marshes and moores proved to plant there, which likewise brought great profitt and aboundance, othersome being desirous to be partakers of that fruit, which they saw so may enriched withal, as also for the supply of their owne expence, planted nott in good ground, butt in the best which they had or could spare, which was somewhat dry or hard, and so oftentimes mett with a sufficient crop and gaine. Thus whilst this kind of commodity thrived excellently well, and brought forth such profitt to the owners, that many in short time proved wealthy thereby, many leaving their wonted trade, betooke themselves onely to bee hoppe masters, as the tytle was then given them, in which new found mistery of planting, setting, drying and trimming they employed themselves wholly: supposing thereby to extract more than an Indian quintessence, for which in those times the marketts and faires proved quick, and Sturbridge, London, and the westerne parts vented whatsoever this or any other country could bring forth, there sprung up a new company, some from London, some from other parts called hoppe merchants: these prying into the last yeares store then remaining, diligently harkening from beyond the sea what likely hood there was from those parts, and carefully looking into every garden, and hop yard here at home, in what towardnesse they stood, comparing the former yeares experience, with the time present, at length with themselves resolved and concluded at a price, who travelling into the Country where these hopps were, they offered to the owners at their owne doors, either for those remaining or for new at the next gathering to come. The great desire of this commodity at home by the marchants, made the inhabitants every way as desirous for their supply, and thus whilst every one sought to bee inriched with this commodity, see how they were contraried in their excessive desires. First such grounds as were any wayes fitt for this purpose were raised and lett att most exceeding high rates; both roots and pooles double encreased their wonted prizes, workmanship proved more chargeable then formerly. And yett when the owner lookt to have all these richly recompensed with a plentifull crop, behold such was the influence of the heavens, and the unkindnesse of the Seasons these sundry yeares past, that in the best grounds hopps failed; the prizes fell and the markett abated, which when the owner perceived, reckning therewithal his great charge, with most uncertain gaine, (if not certaine losse) gave up this new trade, by reason whereof this kind of commodity is now come to decay in these parts, I know nott what this last yeares price 1602 of hopps at 10£ (the like never before heard) may allure some to allure their former experiments. Butt the decay of woods for poals, with the usual charge, and the uncertainty of the profitt, especially other countries being now replenished with hopps, hath made the generall care here to bee onely for the home expence, and that upon wast grounds otherwise nott to bee employed.

In the Rev.Hollingsworth's *History of Stowmarket* (1844), the entry dated '1600 to 1618' contains a paragraph on the hop, which is unashamedly taken from the above passage in Reyce's *Breviary*. According to Hollingsworth, 'the account embraces a period of about ten years from 1592 to 1602.' It reads as follows:

The hop was at first planted in the best meadow ground, but after a while it was found that by draining 'unprofitable marshes and moores', a rich and suitable soil could be obtained. The whole of the low grounds in these parishes might be converted with great profit into its cultivation, and at this period a very large quantity existed. Large fortunes were made by the plant, but much money was lost by persons who 'greedily' placed it in improper ground when they saw how 'enriched' others became who possessed the light and peaty soils. The 'Hop Masters' sprang into existence, wealth rolled in, a more than 'Indian Quintessence' was expected, and there rose up 'a company of Hoppe Merchants', who lived by purchasing and speculating upon the year's growth of this most uncertain of all crops. They generally travelled and bought the crop on the ground, and paid the money to the owners at their doors. A succession of bad hop seasons at this period at this period (1602) prevailed. Hops, poles, and grounds which had risen by a succession of plentiful seasons to 'exceeding high rates', suddenly fell, and many hop grounds went out of cultivation'.[16]

Interestingly, John Kirby does not mention hop cultivation in Suffolk in his *Traveller* of 1735, the result of a survey conducted over the years 1732-34, a time at which we know that the crop was being cultivated fairly extensively in the county. Perhaps the sight of hops being grown was too familiar to warrant mention. What Kirby does do, however, is to inadvertently give us a clue as to how early a date hops might have been introduced into the county. Under his entry for 'Sudbury', he says:

This town was one of the first Places where King Edward III plac'd the Dutchmen, whom he had allur'd by his Emissaries to come into England, out of the Netherlands to teach the English to Manufacture their own Wool, which they were wholly Ignorant of before; and here the Woollen Trade hath continued ever since in a flourishing Condition.

Edward III reigned from 1327-1377, a period during which 'Dutchmen' were certainly brewing with hops in their homeland. The woollen industry has long-since disappeared from the vicinity of Sudbury, but I find it almost inconceivable that hop cultivation, albeit on only a small scale, did not start to be practised in Suffolk around the time that these first Dutch immigrants arrived.

The nearest that comes to mentioning the hop is to be found in the entry for Southwold, part of which says:

It drives a considerable trade in salt and old Beer, having excellent springs of good water, which may be the greatest Reason their Beer is so esteemed.

My feeling is, that it was the local hops, not the water that made Southwold beer so highly regarded – as it still is today.

Hollingsworth's history, of what was the 'capital' of Suffolk hop-growing, contains other references to the plant. As part of the entry for the year 1738 there is a section entitled 'Hop Grounds', in which we find reaffirmation of Suffolk as being the original hop-growing county in England; the paragraph reads:

Hop grounds now were rated, but their earliest introduction into the papers is the year 1635, when 'hop-poles were brought from Columbine-hall in Stowupland to Stowmarket.' (accounts of J.Keble) This singular and profitable plant was introduced into our country in 1520 from Artois in France (Turner's *History of England* b.2). The tradition here is, that the first hops ever planted in England were tried in Old Newton parish, in the then hamlet of Dagworth, which together with Old Newton were then hamlets of Stowmarket. It is not unlikely that this is correct. The Flemings introduced the provence rose, carnations, and other flowers about this period into Suffolk, when they settled here as clothiers. The Dagworth hop grounds are very ancient; and as cloth mills are found in this Hundred at this early period (1520), the hop was brought, with many other plants, flowers, and salads. Three grounds existed in this parish in 1738. For this plant the soil is admirably adapted, and the situation of the vallies in these parishes surrounded by low hills, as may be seen from the tower of the church, affords some of the best situations for the growth of this valuable plant in any part of Suffolk. It is now cultivated here to some extent and might be much extended. The quality is peculiarly excellent and may compete with some of the best hops grown in Farnham in Kent.

It is possible that Kirby's failure to mentions hops was partly attributable to them being a vanishing feature of much of the Suffolk countryside, for it was during the early decades of the 18th century that they began to lose favour as a cash crop. The situation is concisely summarised by Holderness (1984), who says:

Hops were largely confined to the woodland, being concentrated in land around Chelmsford, near Castle Hedingham, and between Stowmarket and Sudbury. There are several references to the crop in 17th century records, but its culture apparently diminished, except in north Essex, from the early years of the 18th century. Like hemp, the plant was grown in severalty, in hop gardens, several of which were grubbed out in Suffolk after 1720 to permit more wheat production.

As confirmation of the disappearance of hop gardens, we have this short excerpt from Copinger's *History of Buxhall* (1902), which details the will of Thomas Hill: 'He, by his will, dated the 5th of July, 1746, described as of Stowmarket … devised to his wife Lydia Hill … and a piece of ground late a Hopyard …'

Hops may well have been grubbed out in many Suffolk localities, but, according to the notes made by Boys during an agricultural tour of 1792 (Boys, 1793), cultivated hops were still thriving in the Gipping valley during the last decade of the 18th century. He recorded: 'Between Stowmarket and Ipswich the hops in the vallies are very strong, and likely to produce a great crop.'

In his 1797 edition of *A General View of the Agriculture of the County of Suffolk*, Arthur Young[17] deals with hops in a section entitled 'crops not commonly cultivated.' Of the crop, he says:

At Stowmarket and its vicinity, there are about 200 acres of hops, which deserve mention, as an article which is not generally spread through the kingdom. The average produce, six cwt. at 5l. or 30l. per acre, and expence in labour only 7l. Eighteen or twenty acres are grubbed up and turned to meadow within a few years, owing to bad times. The soil they plant on, is a black loose moor on a gravelly bottom, very wet and boggy lying on a dead level with the little river that runs by the town; the more boggy and loose it is, the better the hops thrive, especially if the gravel be within three feet; the neighbouring grounds rise in such a manner as to shelter them very well. Before planting, these morassy bottoms were coarse meadow, worth about 20s. an acre, and some much less. In preparing for hops, they form them into beds sixteen feet wide, and two feet or two feet and a half deep, the earth that comes out being spread upon the beds, and the whole dug and levelled. Immediately upon this, they, in March, form the holes six feet asunder every way, twelve inches diameter, and a spit deep, consequently, there are three rows on each bed.- Into each hole they put about half a peck of very rotten dung, or rich compost, scatter earth upon it, and plant seven sets in each, drawing earth enough to them afterwards to form something of a hillock. Some persons in the first year sow French beans, or beans, and plant cabbages, but not reckoned a good way by Mr Rout, to whose obliging communication I owe particulars from which I draw this account: in about two or three weeks, but according to season, they will be fit to pole with old short poles, to which they tie all the shoots or vines, and then keep the land clean by hoeing and raking; at Midsummer they hill them. The produce the first year will be three, four, and even five hundredweight of hops per acre. After this they reckon them as a common plantation, and manage accordingly. Manure is not always given regularly; but amounts, upon an average, to ten loads a year, value 5s. a load in the plantation – They keep it till it would run through a sieve, which they prefer to a more putrid state.

The labour of forming the beds for a new plantation, by digging the drains &c. amounts to 4l. an acre per annum, for which they dig,

strip, sack, clean drains, hoe, rake, hole, tie &c. Three poles are put to each hill, consequently, there are 30 hundred (at 120) to the acre, at 24s. a hundred delivered. They are generally of ash, and the length they prefer is twenty-four feet. But in addition to this regular poling, when a hop raises much above a pole, they set another to take the shoot to prevent its falling, preventing the circulation of air, and entangling with the poles of other hills.

A hop garden will last almost for ever, by renewing the hills that fail, to the amount of about a score annually; but it is better to grub up and new plant it every twenty or twenty-five years. The only distempers to which they are subject, are the fly and honey-dew; they know the blast and the red worm, but they are rare; the latter chiefly on dry land. The lightening they think favourable, as it kills flies and lice. Mr Rout has raised a bank against the river about three feet high, to lessen the force of floods; but does not wish to keep them entirely out; as he finds, that if the water comes in gently, and does not wash the earth away, it is rather beneficial. And he is clear, that if he was to let the river into his drains to a certain height, in very dry weather, it would be of service to the crop.

Relative to the expence of forming a new plantation, they had, many years ago, an idea that it cost 75l. an acre; and Mr Rout is clear that it cannot now be done under 100l. Among other articles, he named the following:

	£	s.	d.
Preparing the beds,	4	0	0
Manure	2	10	0
Planting	1	5	0
Sets, if bought, or the labour in raising and cutting	1	15	0
Hoeing, raking, and moulding,	0	10	0
Tying,	0	10	0
Poling,	0	10	0
30 hundred poles, at 24s	36	0	0
Shaving and knotting, 6d. per hundred,	0	15	0
Carrying to the ground, 2s. per hundred	3	0	0
Picking, drying, and bagging, 20s. per cwt. 4cwt	4	0	0
Duty 10s	2	0	0
Two bags	0	10	0
Two years rent, 20s	2	0	0
Tythe,	2	0	0
Rates, 7s. In the pound	0	14	0
	61	19	0

The gross calculation, therefore, includes some articles not noticed here, or takes a considerable portion of the expence of building the kiln. The annual expence they reckon:

Rent, when the land is in order,	2	0	0
Tythe,	1	0	0
Rate 7s.	0	14	0
Labour, by contract,	4	0	0
Manure,	2	10	0
Picking, drying, and bagging, 20s.per cwt. 8cwt	8	0	0
Duty 10s.	4	0	0
Three bags, at 5s.	0	15	0
Annual renewal of poles, suppose	4	0	0
Interest of money	3	2	0
Ditto kiln	1	0	0
	31	1	0

Mr. Rout's crops have varied from 1 cwt. which was the lowest he ever had, to 13 cwt. which he thinks was the greatest produce he ever received; on an average, 8 cwt. and the mean price 4l. per cwt.

Eight cwt. at 4l	32	0	0
Expences	31	1	0

This account nearly resembles many others I have taken in different counties. Another minute of the expence and produce of Stowmarket:

EXPENCES

	£	s.	d.
Stock, 25l. for poles, the interest of which	1	5	0
Rent	2	0	0
Tithe	1	0	0
Rate	0	14	0
	3	14	0

Rent total per annum	4 19 0
Three loads of poles, at 22s. annually,	3 6 0
Manure, four loads a year	0 16 0
Labour	3 10 0
Carriage of poles, and sharpening	0 3 0
Picking 6 cwt. and drying and carting, 10s. per cwt,	3 0 0
Bagging,	0 3 0
Kiln,	0 5 0
Duty, at 1d. and 15 per cent	3 4 0
Carting to Sturbich fair, 1s. 6d	0 9 0
Carrying to the ground, 2s. per hundred	3 0 0
Fences, and draining	0 10 0
	20 5 0
Interest on that sum	1 0 0

PRODUCE

The average price, 5l.

Six cwt. at 5l	30 0 0
Expences	21 5 0
Profit	8 15 0
Replenishing may be reckoned one-sixteenth annually	2 0 0
Remains	6 15 0
Still to be deducted for a farm impoverished by the manure being taken for hops	2 0 0
Neat profit	4 5 0

Where they pick latest are the best hops next year.

The two hundred acres of hops in this neighbourhood are spread in the following proportion, through these parishes:

In Stowmarket,	50 acres;
Combs,	30;
Newton,	20;
Dagworth,	8;
Finborough,	20;
One-House,	20;
Shellan,	5;
Buxhall,	15;
Stow-Upland,	10;
Haughley,	8.
	186, &c.

The expences of forming a new plantation, given above, are now (1803) higher than they were when the former edition was printed.- The account may now be stated thus:

	£. s. d.
Preparing the beds	4 10 0
Manure	3 1 0
Planting, &c. sets	1 15 0
Hoeing, &c	0 10 0
Tying	0 10 0
Poling	0 10 0
30 hundred of poles, at 38s	57 0 0
Shaving, &c. 6d. per hundred	0 15 0
Carrying to the ground, 2s. 4d	3 10 0
Picking, drying, and bagging, 25s. per cwt. 4 cwt	5 0 0
Duty, 21s. 3d. per cwt	4 5 0
Bags	0 10 0
Two years rent	6 0 0
Tythe	2 2 0
Rates	2 2 0
	10 4 0
	£91 19 0

ANNUAL EXPENCE

Rent	3 0 0
Tythe	1 1 0
Rates	1 1 0
Labour	4 0 0
Manure	3 0 0
Picking, &c. 8 cwt	8 0 0
Duty 21s. 3d.	8 10 0
Three bags	0 15 0
Renewal of poles	5 0 0
Interest	4 0 0
Ditto iln	1 0 0
	£39 7 0

The produce or price must therefore have risen, or the cultivation would be abandoned.

The cultivation of hops on poor, 'moory' ground aroused much interest in the agricultural community, so much so, that John Lawrence's *New Farmer's Kalendar* of 1801, goes into great detail about this aspect of Suffolk hop cultivation. The method of hop-growing in Suffolk apparently enabled a crop to be obtained in the first year, a fact documented by Dickson (1805), who summarised the method, and commented upon its elaborate nature. Dickson said:

There is still another mode of planting practised in some districts where the land is of the boggy kind and much inclined to moisture [Suffolk]. This is that of forming the plantations into a sort of beds about 16 feet in width, by digging out trenched 3 feet in width, and from 2 to 2½ feet in depth, spreading the earth thus removed evenly over the beds previously prepared. On these the sets are put in after the holes have been made a spit in depth, 12 inches in diameter, and 6 feet apart in each direction, so as to admit three rows on each bed, in the same manner as in the other methods. The plants in this mode are poled in the course of about three weeks with old short poles, to each of which two or more of the binds are tied; the land being afterwards kept in order by hoeing and raking. The operation of hilling is performed in the latter end of June or beginning of July. This appears, however, a tedious and expensive plan, without its possessing any superiority except that of rendering the lands some what more dry.

It is the custom with some planters to cultivate other sorts of crops at the same time with hops, as common beans, cabbages, French beans, and onions; but this is a practice by no means recommended, as much injury may be done by their crowding the plants and preventing the free admission of air, light, and sun to them. The onion is the least objectionable, as not rising to any great height, and being capable of being sown at the same time the sets are planted out.

It is seldom advisable to take any produce the first year, as where this is attempted much injury is frequently done to the future produce of the plantations. In the Suffolk method of planting, a produce of three, four, and even five hundredweight of hops is sometimes however afforded the first year.

Within the next 40 years, there was a gradual diminution in the hop-ground acreage in Suffolk, as can be gleaned from the *Commission of Excise Inquiry* report of 1835. The Suffolk collection listed the area of land under hops in the whole of the county, in 1833, as 148½ acres, and these were apportioned as follows:

Ashen, 1¼; Bures St. Mary, 1¼; Assington, 3½; Combs, 3¼; Clare, 3¼; Lt. Cornard, 1¾; Foxhall, 8; Haughley, 28; Kesgrave, 9; Mount Bures, ¼; Needham, 6; Newton, 23¼; One House, 20¼; Rattlesden, 3½; Stowmarket, 29; Stowupland, 7.

Robert Malster (1996), maintains that between the years 1829 and 1835, the parishes of Stowmarket, Creeting, Haughley, Dagworth, Old Newton, Onehouse, Combs and Great Finborough grew around 64,000lb. of hops every year, and paid an average annual duty of well over £500.

According to Cooper (1998), there were several other parishes in Suffolk not mentioned above, that contained field names that indicated that hops had once been grown there. The information came from the Tithe Awards of 1838-40, and, at that time, apparently, there were four fields in Glemsford; three each in Lavenham, Chilton and Great Cornard, and two in Edwardstone, with other references from Long Melford, Stoke by Nayland, Great Waldingfield, Kersey, Cavendish and Brent Eleigh. Little Cornard, which is mentioned in the *Excise Inquiry* report, contained five fields that had been used for hop cultivation.

If one compares the above 1835 figures with those given by the Raynbirds in 1849, it is evident that one is witnessing a further reduction in overall hop acreage, and a concentration of Suffolk hop-growing in Stowmarket and its environs. According to their *Agriculture of Suffolk*, 136 acres were given over to hop growing, distributed amongst the following parishes:

Haughley	30 acres,
Dagworth (hamlet)	29 acres,
Onehouse	31 acres,
Combs	6 acres,
Stowmarket	40 acres.

The above data was presented by courtesy of a local hop farmer, Mr James Jannings of Dagworth, who qualified his figures by saying: 'I do not know that I am quite correct as to the number of acres at Stowmarket; the others are correct, I believe.'

Jannings then continues:

These, I believe, include all that are grown in Suffolk, except 23 acres belonging to J.C.Cobbold, Esq at Foxhall, 15 acres at Mr Freeman's, Henham, a few small hop-yards at Carlford hundred, in the valley in the southern side of the river Deben, and a few grown here and there in cottagers' gardens.

In the Stowmarket district the hop generally grown is called the MARRIOTT which is small but generally speaking a very close, firm and good hop, its flavour considered excellent, and of late years has been much used, as I have been informed, by the Scotch brewers in making Edinburgh ale. t is mostly about the price of the East Kents. Lately another hop has been introduced by two or three planters, called the Golding hop; it is more abundant and larger than the former, but not so firm, although when well cured it is bright in colour and very good. The growth this year varies from 9-13cwt./ acre, which for this district is considered an excellent crop.

Some of Mr Jannings' information appears to have originated from White's *Suffolk Directory* of 1844, which has the following entries:

a) Carlford Hundred; Foxhall. 'Sir Robert Harland is lord of the manor and impropriator; but J.C.Cobbold, Esq., has an estate and a hop garden of 23A. here, and other portions of the parish belong to several smaller owners.'
b) Stow Hundred; Old Newton. '*Hops* are grown at Dagworth, and a few of its houses are in Haughley parish.' Wm.Armstrong and James Jannings listed as *hop growers*.
c) Stow Hundred; Stowmarket. 'The construction of this canal [the river Gipping was made navigable from Ipswich in 1793 – since when it has doubled its buildings and population] cost about £27,000, and its completion reduced the price of land-carriage from hence to Ipswich more than one-half. Independently of its utility, it is a great ornament to the town, there being an agreeable walk from the basin along the towing path, nearly a mile in length, winding through fertile meadows, hop plantations, etc. … There are in the parish several extensive *nurseries* and market *gardens*; but the *hop-grounds*, which formerly extended over about 150 acres, have been reduced to about 32 acres.'

A similar publication, *Pigot's Commercial Directory of Suffolk*, for the year 1830, stated that the construction of the Stowmarket Navigation in the 1790s had stimulated Stowmarket's trade, and that 'a very considerable business' was done in the corn, coal and timber trades. Much business was also done there in the malting and hop trades. The *Directory* added: 'The fairs take place on the 10th of July for toys; the 12th of August for lambs, and the beginning of October for hops and cattle.' In the 1839 edition of the *Directory*, the Stowmarket entry includes: 'Hops are cultivated to material advantage in this vicinity.'

One of the most renowned hop-grounds in Stowmarket was at Abbot's Hall (now the site of the Museum of East Anglian Life). At the time of a sale in 1803, the Abbot's Hall estate was described as:

comprising an excellent brick-built mansion, coach house, barn, stable, and suitable and convenient offices, a malt-house 40 combs steep, gardens, an orchard, and 125 Acres of extremely rich and fertile arable, meadow and pasture Lands and Hop Ground, in the highest state of cultivation.

Trist, writing in1971, confirmed the survival of hops in the Stowmarket area throughout most of the 19th century, with the following words:

Twelve acres of hops were grown at Dagworth Hall sometime between 1851 and 1870 by Thomas Woodward, the grandfather of G.Philip Woodward, who farms 700 acres at Dagworth and Old Newton. The oast house is still identifiable at Dagworth.

Living memory recalls it being said that the Stowmarket hop fields were in the valley of the river Gipping from Monkey Island down to Cardinall Road in Stowmarket. A house in the valley and to the east of Hill House hospital is still called Hop Cottage.

The county floras published during the latter half of the 19th century, whilst not suggesting when, and how, the plant might have arrived in Suffolk, do testify to the abundance of the wild hop. Henslow and Skepper (1866), for example, record it as 'frequent in hedges and thickets', whilst Hind (1889) is a little more enlightening, with:

Climbing herbaceous perennial, furnishing the hops of commerce; in hedges and damp copses. Frequent in all the districts. July, August.

Interestingly, Hind reports that the earliest record of the hop (presumably wild) in Suffolk was in 1773, when it was 'recorded by Sir J.Cullum in his *Naturalists' Journal*.'

The 1890 *Select Committee Agricultural Returns* for Suffolk, for the period 1866 – 1889, show an exorable decline in the hop acreage in the county:

(Cambs.):

1866	127 (4)	1878	75
1867	124	1879	71
1868	140	1880	66
1869	165 (14)	1881	67
1870	139 (3)	1882	66
1871	129 (3)	1883	64
1872	127 (40)	1884	57
1873	98	1885	56
1874	97 (1)	1886	57
1875	81	1887	42
1876	71	1888	29
1877	78	1889	29

Hop cultivation was still very much a feature of the Stowmarket area during the last decade of the 19th century, even if it had almost reached vanishing point in most other parts of the county. This point is confirmed in a vividly nostalgic statement by Rev. John Raven, who, in 1895 remarked:

A Kentish traveller passing by Stowmarket may for a few minutes fancy himself in his own county; but with the exception of about ten acres at Rushmere, near Ipswich, which had a reputation for fine hops in the early part of this century, it would be hard to find another instance.

The entry for Stowmarket in Kelly's Directory of *Cambridgeshire, Norfolk and Suffolk*, for the year 1900, contains: 'In the vicinity are several hop gardens', and the same is repeated in Kelly's *Directory of Norfolk and Suffolk* eight years later; around the time that hop-growing reputedly ceased.

Towards the end of his section on hops, Trist describes how a limited form of hop cultivation was intermittently carried out in Suffolk during the 20th century:

The crop was reintroduced into Suffolk in 1957 for the purposes of raising setts. The stock was produced by the East Malling Research Station and was considered virus free. Suffolk was selected as an area in isolation from the main hop fields. The setts are sold to Kent and West Midland growers through the Hops Marketing Board. The 'bine' is layered from the 'hill' in June and the setts are cut from the bines in November. The crop is sprayed against downy mildew and aphids every 10-14 days, depending on weather conditions. The setts are planted 9" apart and 4' between rows. Inter-row cultivations are now being superseded by the use of Simazine. Fuggle and Whitbread Golding varieties are now being superseded by Alliance and Progress.

In 1965 one-tenth of an acre was grown at Cherry Tree Farm, Monewden; 3 acres at Old Church Farm, Braiseworth; 8 acres at Mere Farm, Haughley, and 16 acres at Bedingfield Hall. At the last named farm, the output was 40,000 setts and the 16 acres employed a man full-time. Up until 1965, part of the advisory and certification work was carried out by G. Earp of the Suffolk N.A.A.S.; in 1966 the work was transferred to the Regional Hops Adviser in Kent.

As we have seen, over the years, hop cultivation has occasionally been a precarious business. We have also learned that hop-poles represented one of the greatest items of expense for the hop farmer, and that tree-felling had a detrimental effect on the countryside. Occasionally, the industry contributed to situations with far more serious consequences, as can be seen from the following tract which appeared in *The Ipswich Journal* in 1776 (Berry, 1992):

Jeremiah Rust was killed by the wheels of a wagon, loaded with hop -poles, going over the top of his neck. From the way he lay when they found him it seemed likely that he had fallen from the shafts, but his mate was asleep on the wagon, and knew nothing about it till a gentleman who had come across the body rode up, a considerable distance further on, to tell him.

Tim Passmore, who farms at Thwaite, near Eye, has recently taken to growing hops (mainly the dwarf varieties, First Gold, and to a lesser extent, Pilot). In 2003, he had 50 acres under the hop, and sold everything that he produced (all Grade 1). Greene King and Adnams were amongst his customers. He has obtained a £500,000 grant from DEFRA, and, in the future, intends to increase the acreage to 4-5,000 (see my additions, they now grow Boadicea and Sovereign as well).

Stourbridge Fair

Began in the 13th century with a proclamation by King John providing for a yearly fair to raise money for a leper hospital created by the priory at nearby Barnwell. After the dissolution of the monasteries in the mid-16th century, the University and town authorities disputed over the rights and the revenues of the fair, which was rapidly becoming one of the most important in the country. In 1589, Elizabeth I ordered that the town should control the management and policing of the Fair, whilst the University gained control over weights and measures and the punishment of loose women and other offenders. In the 19th century, the trading importance of the Fair diminished, and it became a social problem. The Fair was proclaimed for the last time in September 1933.

When Daniel Defoe visited 'Sturbridge Fair' in 1724, and reported on it in *A Tour Through the Whole of Great Britain*, it was the principal fair in England. Defoe entered Cambridge from 'New Market,' about the beginning of September, and he came through the fair, which was then at its height. He considered the fair to be not only 'the greatest in the whole Nation,' but 'in the World.' He continues:

Nor if I believe those who have seen them; is the Fair at *Leipsick* in *Saxony*, the *Mart* at *Frankfort* on the *Main*, or the Fairs at *Neuremberg*, or *Ausburg*, any way to compare to this Fair at *Sturbridge*. It is kept in a large Corn-field, near *Casterton* [Chesterton], extending from the Side of the River *Cam*, towards the Road, for about half a Mile square.

If the Husbandmen who rent the land, do not get their Corn off before a certain Day in *August*, the Fair-Keepers may trample it under foot and spoil it to build their Booths, or Tents; for all the Fair is kept in Tents and Booths: On the other Hand, to ballance that severity, if the Fair-Keepers have not done their Business of the Fair, and removed and cleared the Field by another certain Day in *September*, the Plowmen may come in again, with Plow and Cart, and overthrow all and trample it into the Dirt; and as for the Filth, Dung, Straw, etc., necessarily left by the Fair-Keepers, the Quantity of which is very great, it is the Farmers Fees, and makes them full amends for the trampling, riding, and carting upon, and hardening the Ground.

It is impossible to describe all the Parts and Circumstances of this Fair exactly; the Shops are placed in Rows like Streets, whereof one is called *Cheapside*, and here, as in several other Streets, are all sorts of Trades, who sell by Retale, and who come principally from *London* with their Goods; scarce any Trades are omitted; … in a word all Trades that can be named in *London*; with Coffee-Houses, Taverns, Brandy-Shops, and Eating-Houses, innumerable; and all in Tents, and Booths, as above.

This great Street reaches from the Road, which as I said goes from *Cambridge* to *New-Market*, turning short out of it to the Right towards the River, and holds in a Line near half a Mile quite down to the River-side: In another Street parallel with the Road are like Rows of Booths, but larger, and more intermingled with Wholesale Dealers, and one Side, passing out of this last Street to the Left Hand, is a formal great Square, formed by the largest Booths, built in that Form, and which they call the Duddery; when the Name is deriv'd, and what its Signification is, I could never yet learn, tho' I made all possible search into it. The Area of this Square is about 80 to 100 Yards, where the Dealers have room before every Booth to take down, and open their Packs, and to bring in Waggons to load and unload.

[after describing the vast nature of the Fair] Defoe goes on:

But all this is still outdone, at least in show, by two Articles, which are the peculiars of this Fair, and do not begin till the other Part of the Fair, *that is to say for the Woollen Manufacture*, begins to draw to a Close: These are the WOOLL and the HOPS, as for the Hops, there is scarce any price fix'd for Hops in *England*, till they know how they fell at *Sturbridge* Fair; the Quantity that appears in the Fair is indeed prodigious, and they, as it were, possess a large Part of the Field on which the Fair is kept, to themselves; they are brought directly from *Chelmsford* in *Essex*, from *Canterbury* and *Maidstone* in *Kent*, and from *Farnham* in *Surrey*, besides what are brought from *London*, the growth of those, and other Places.

Enquiring why this Fair should be thus, of all other places in *England*, the Center of that Trade; and so great a Quantity of so Bulky a commodity be carried thither so far: I was answer'd by one thoroughly acquainted with that matter thus: the Hops said he for this Part of *England*, grow principally in the two Counties of *Surrey* and *Kent*, with an exception only to the Town of *Chelmsford* in *Essex*, and there are very few planted anywhere else.

There are indeed in the West of *England* some Quantities growing; as at *Wilton*, near *Salisbury*: at *Hereford* and *Broomsgrove*, near *Wales*, and the like; but the Quality is inconsiderable, and the Places remote, so that none of them come to *London*.

As to the North of *England*, they formerly used but few Hops there, their Drink being chiefly Pale smooth Ale, which requir'd no Hops, and consequently they planted no Hops in all that Part of *England*, North of *Trent*; nor did I ever see one Acre of Hop-Ground planted beyond *Trent*, in my Observations; but as for some Years past, they not only brew great Quantities of Beer in the North; but also use Hops in the Brewing their Ale much more than they did before; so they all come South of *Trent* to buy their Hops; and here being vast Quantities bought, 'tis great Part of their back Carriage into *Yorkshire*, and *Northamptonshire*, *Derbyshire*, *Lancashire*, and all those Counties; nay, of late, *since the Union*, even to *Scotland* it self; for I must not omit here also to mention, that the River *Grant*

or *Cam*, which runs close by the N.W. side of the Fair in its way from *Cambridge* to *Ely*, is Navigable, and that by this means, all heavy Goods are brought even to the Fair-Field, by Water Carriage from *London*, and other Parts; first to the Port of *Lynn*, and then in Barges up the *Ouse* into the *Cam*, and so, as I say, to the very Edge of the Fair.

In like manner great Quantities of heavy Goods, and the Hops among the rest, are sent from the Fair to *Lynn* by Water, and shipped there for the *Humber*, to *Hull*, *York*, &c. and for *New-Castle* upon *Tyne*, and by *New-Castle*, even to *Scotland* it self. Now as there is still no planting of Hops in the North, tho' a great Consumption, and the Consumption increasing Daily, this, says my Friend, is one Reason why at *Sturbridge* Fair there is so great a Demand for the Hops, if any worth naming, growing in all the Counties even on this side Trent, which were above forty Miles from *London*; those Counties depending on *Sturbridge* Fair for their supply, so the Counties of *Suffolk*, *Norfolk*, *Cambridge*, *Huntingdon*, *Northampton*, *Lincoln*, *Leicester*, *Rutland*, and even to *Stafford*, *Warwick* and *Worcestershire*, bought most if not all of their Hops at *Sturbridge* Fair.

These are the Reason why so great a Quantity of *Hops* are seen at this Fair, as that it is incredible, considering too, how remote from this Fair the Growth of them is, as above.

This is likewise a Testimony of the prodigious Resort of the Trading People of all Parts of *England* to this Fair; the Quantity of *Hops* that have been sold at one of these Fairs is diversly reported, and some affirm it to be so great, that I dare not copy after them; but without doubt it is a surprising Account, especially in a cheap Year.

McIntosh, in *The Decline of Stourbridge Fair, 1770-1934* (1998), says: 'By 1724 Daniel Defoe, in his famous description of the Fair, was able to suggest that it was 'not only the greatest in the whole nation, but in the whole world.' It lasted three weeks [?] in September, and covered a large area of ground between the main road to Newmarket and the R. Cam. Its primary function was as a trading fair, principally in cloth and hops.

By the end of the 18th century trading declined and 'the solid wooden booths which had dealt in furniture, silver, cutlery, silk, millinery, hosiery, lace, boots, clogs, furs, fans, paints and pickles, increasingly supplied only hops, cheese, wool and horses. Stourbridge Fair remained important for some foodstuffs and for livestock long after it ceased to trade in most other wares. In 1799, the *Cambridge Chronicle* observed that: 'Stirbitch Fair has this year been remarkably thin of company, owing in some measure to the backwardness of the harvest. Nothing has been done in the hop trade. The prices of cheese were as follows ...'

As late as 1870, the same paper reported:

The number of horses brought together was the largest that has been shown for many years past … business was active for the better classes, and very high terms were obtained … the hops were the next most important item in the fair … the demand was active ...

Thirsk (1967) says;

Stourbridge Fair provided for 16th century provincials much of what a departmental store in the West End of London does today. With its inns and theatres, its fortune-tellers, its harlots, and 'lord of the taps' (aletaster) it had developed to a fantastic degree the gay, licentious side of fairs, which often led to their proscription in Victorian England. By Defoe's time, its agricultural importance was largely limited to wool and hops. For hops, Stourbridge was probably the only major fair in this period, though certain quantities were also sold at fairs in Hampshire, Kent and Surrey. The local trade from Essex and Suffolk, **PERHAPS THE FIRST TWO COUNTIES TO GROW HOPS ON A COMMERCIAL SCALE**, was augmented by supplies from Maidstone, Canterbury and Farnham, transported by way of the Medway, Stour and Wey, and thence by sea and river to the edge of the fairground itself. In an age when beer was the staple drink of the community, Stourbridge became the mart for not only the east Midlands, but for much of the west country and the north, where soil and climate did not favour local production.

In William Owen's *Book of Fairs* of 1765, hops were being sold at 25 fairs in England and Wales. In East Anglia, they were at Ely (18 October) and Sturbich (18 September). The two most important in terms of hops, were at Sturbich (fortnight), and Weyhill, Hampshire (10 October - for one week).

Fisher (1935), discussing the development of the London Food market over the century preceding 1640, notes that (quoting Samuel Hartlib):

The trade in foreign fruit and vegetables, which had shewn signs of decay even under Elizabeth, rapidly dwindled under the early Stuarts (except hops and onions, which continued to come in). [p.529 he says] For Kent small quantities of hops were at times exported and considerable quantities of beer. In Henry VIII's reign many hundreds of tuns of Kentish beer were sent to slake the thirst of Frenchmen and Flemings. The trade continued at least until the time of the Spanish Armada.

Norfolk

Although commercial hop-growing has been documented in Norfolk, indeed, British cultivation of the plant may have

originated in the county, it never apparently reached the scale attained in parts of Suffolk and Essex. Certainly, the precise details of commercial hop-growing in Norfolk are nowhere near as abundantly documented as they are for Suffolk and Essex, something that suggests that the crop was not as widely grown north of the River Waveney. We do know that the crop was being cultivated on a small scale in Norfolk during the third quarter of the 19th century, for the 1890 *Select Committee Agricultural Returns*, for the period 1866-1889, indicate that the following acreages were under the hop in Norfolk:

1870; 26,
1871; 4,
1873; 3,
1875; 1.[18]

General histories of Norfolk, such as Blomefield (?), Rye (1885), and Dutt (1900) do not mention hop-growing, which may, or may not, be all that surprising, since, as we have seen, rarely do equivalent works on Suffolk and Essex. What is rather more significant is the fact that the major agricultural surveys of the county during the late-18th and early-19th centuries, also ignore the crop. Thus, Young, reporting on his tour of the eastern counties in 1771, and, again, in his General View of 1804, singularly fails to remark on hop cultivation in Norfolk, as do Kent (1794), Marshall (1818), and Almack (1845).

Nor do we learn much about the hop from the Norfolk county floras. Trimmer's entry (1866), for example, simply says: 'Common. H. July, August. Frequent in thickets and hedges.' Nicholson (1914) is equally terse: 'Native and cultivated. VII-VIII. Rather common. Hedges.' A far more enlightening statement was provided by Ted Ellis, in 1965, in his book about the Norfolk Broads. Ellis painted an evocative picture, reminiscent of how the Romans must have first perceived the plant as being *Lupus salictarius*, 'a wolf amongst the willows' (Hornsey, 2003); he says:

> The hop is a common climber amongst sallow bushes in carrs, and it is often present in areas where the broad-leaved sweet-grass or rond -grass (Glyceria maxima) is plentiful near the Yare Broads.

Petch and Swann, in their 1968 Flora have the following succinct entry for the plant:

> Status doubtful. Common. Hedges and scrub. According to common repute, it was introduced in the fourteenth century.

In their introduction, however, the same authors unwittingly give us a clue as to how and when *Humulus lupulus* might have arrived in Norfolk:

> It was during the reign of Edward III[19] that Flemish weavers were persuaded to set up their looms in and around Norwich. The abundance of local supplies of wool laid the foundation of the staple industry and Norwich became the second largest city, ranking after London. According to repute, the Flemings and the Walloons introduced many new or little-known plants such as the lilac, carnation, Provence rose, asparagus, carrot, celery and cabbage ...

To the above list of plants we can undoubtedly add the hop, the only point of conjecture being the exact date its of introduction, and subsequent use in brewing. Steer (1950), without giving a source, thought that hops were cultivated in Norfolk from at least 1482, whilst Chapman (1905) maintained that hop-gardens were in existence in Norfolk in 1533, or earlier, a point that was reiterated by Burgess in 1964. Again, no primary source for invoking the date 1533 has been forthcoming.

Beckett et al. (1999) are a little more forthcoming, and intimate that hop-growing may never have been important in Norfolk. Their entry for the hop says:

> Herbaceous perennial twining climber, native in Fen Carr where it can festoon shrubs and trees. The cultivated form, introduced in the early 16th century from Flanders and used in commercial beer production, does not appear to have been grown on a large scale in Norfolk. It is possible, however, that some of our hedgerow colonies are relics of local cultivation.

In contrast to the paucity of information regarding early hop cultivation, evidence for the existence of beer (whether brewed indigenously, or imported), and of hops (patently for use in the brewing of beer), in Norfolk, particularly Norwich, is relatively abundant. Hopped beer was evidently known in Norfolk as early as the late 13th century, even if it was not a generally approved beverage. In 1289, for example, we find that one Ricardus Somer (Richard Summer), a Norwich ale-seller, was charged and fined 2s. for 'selling Flanders beer (*cervisiam flandrensum*) privily.' Somer's actual offence was for avoiding payment of customary dues, rather than for breaking the Assize (Hudson, 1892), and we are unsure as to whether the beer he was selling was actually imported from Flanders, or whether it was brewed in Norwich to a Flemish recipe. The latter must be doubtful, for details of beer-brewers are noticeably lacking for this period. Indeed, no maltsters, or brewers of any kind, are mentioned in the Norwich enrolled deeds for the period 1285-1311 (Kelly, 1983), although this may merely reflect the low status of the craft, which was almost certainly in the hands of female practitioners (alewives). In an extract from the Patent Roll (PRO C 66/113 m.16), recording a grant made to Lynn on 18 June 1294 of a murage tax for a period of six years, payable on goods entering or leaving the port, beer (*cervisie*)

is specified as an item subject to the tax. It is thought, however, that, at this sort of date, beer was an imported commodity, rather than an export one. Over the next century, or so, there are records of a number of presentments to the Norwich leet courts for beer-related offences, mostly for breaking the Assize (Hudson, 1892). Under the presentments of the leet of Conesford and Berstrete (24 Edward I, 1295/6), Margaret de Brundall was fined 2s. 'because she sells beer with an earthen pot which is not according to the lord king's assize.' On the same leet roll, 'the wife of Geoffrey de Costessey' was fined a similar amount 'because she sells beer contrary to the common proclamation – to wit, one gallon of beer for two pence and because she sells beer with two measures.' In the presentments on the leet roll of the leet court of Conesford during the period 1299-1300 (28 Edward I), there is a general admonishment 'of all the bakers and brewers for breaking the assize … of the brewers because they sell one gallon of beer for sterling and another for pollards and so make two assizes contrary to the will of the king.' In the same document, under 'Of the brewers of Conesford' we find the following:

Of the wife of Alexander del Sartrin for not observing the assize of ale and because she sells one gallon of beer for one penny sterling and another for pollards and crockards, and because she buys corn before it comes to the market, whereby the king loses his custom, and because she refuses bare measure and because she avows the goods of strangers as her own, whereby the lord king etc. (2s., she paid it and is quit) … Of the wife of William de Keteringham for the same (2s., excused because he is a serjeant) … Of the wife of Geoffrey the Cobbler for the same (2s., she does not brew) … Of the wife of John de Weston for the same (2s., Tudenham, Poringland) … Of Clara Toftes (2s., she does not brew).

Almost a century later, and we have what is considered to be early documentary evidence of the actual use of hops in brewing, when we find that several people were fined for beer-related offences in the 1390/91 Norwich leet court for breaking the Assize (Hudson, 1892). Under 'Verdicts of the Leet of St.Peter de Manecroft on Thursday in the third week of Lent in the year aforesaid', we find that the following amercements were made:

Walter Gressenhall is wont to sell beer etc. (2s.),
Floritus Taylor *pro beer* (2s.),
John Truelove is a tippler of beer (12d.),
Walter Goldsmith, an alien, is a tippler (12d.).

Then, the following week, 'Verdicts of the Leet of St. Andrew on Monday in the fourth week of Lent in the year aforesaid:

Henry Wylde *pro beer* (tippler, 12d.),
John van Lere, alien, *pro beer* (tippler, 12d.).

The first *bona fide* record of the importation of hopped-beer into England was in 1361 (Smit, 1928), when James Dodynessone paid a 7s. toll on a consignment of the beverage at Great Yarmouth (Court Roll 35, Edward III. Article 506.). From henceforth, beer imports to Yarmouth gradually increased, and by the turn of the century, the port was receiving some 40-80 barrels monthly, with additional volumes coming in to other East Coast ports, including Ipswich, Scarborough and Newcastle. Kerling (1954) gives the following figures for beer imported into Great Yarmouth at the end of the 14th century:

Period of import reference	Total volume (measured in lasts: 1 last = 12 brls.)	Approx. monthly volume (lasts)
20 June 1395 - 1 April 1396	32	3½ [42 brls.] PRO E122 149/27
1 May 1398 - 1 May 1399	65	5½ [66 brls.] PRO E122 149/34
29 September 1399 - November 1400	87	6½ [78 brls.] PRO E122 150/1

It is almost certain that beer was actually being brewed in Norwich, albeit by aliens, from the early years of the15th century. To support this notion, we have evidence from the *Calendar of Patent Rolls 1429-1436*, which contains a list of foreigners resident in England, and where they live. Membrane 29 [p.554] mentions: 'Gerard Berebrewer of Delfe, born in Holland, dwelling at Norwiche.' It is almost inconceivable that this gentleman's name did not reflect his occupation!

Owen (1984) reports on a number of entries from the Kings Lynn Hall Books, which concern the regulation of trade in the port. One item, dated 14 March, 1446, takes the from of an ordinance to the coopers of the town to make sure that their barrels for herring and beer contain exactly 30 gallons! It goes:

Ordinatum est quod les couperes huius ville erunt supervidendum per maiorem pro eorem barellis et quod quodlibet barellus allecium continebit 30 lagenas et sic de dimidio barello et le feryndell quilibet continet secumdum quantitatem barelli Et quod quolibet barellum de bere continet eandum mensuram et sic dimidium barellum et le feryndell.

Owen also documents some of the accounts of the 'contrarotularius' at Lynn, with readings from the Collector's Roll during the period 19 November 1464 – 19 November 1465 (PRO E122/97/14). Apart from confirming the import of hops into Lynn during the mid-15th century, the excerpts

De navi Iohannis Ortesson intrante
27 die Februarii

		li	s	d
De Iohanne Gaunse indigena				
	pro 35 barellis heringe	9	0	0
	3000 pavyntyle	0	33	4¼
	50 barellis onyons	0	13	4
	10 sorte trwte	3	0	0
	2 saccis hoppis	0	20	0

De navi Cornellii Peterson Intrante
28 die Februarii

De eodem viro alienigena				
	pro 72 barellis hering	17	0	0
	100 waynscot	0	26	8
	1 last pik	0	26	0
	600 pissis salsi (salte ffyshe)	0	40	0
	uno barello salmon	0	13	4
	1 sacco hoppis	0	20	0

indicate the fascinating variety of goods that were coming in, as well. Examples are above.

The earliest indisputable evidence of beer becoming an acceptable drink in Norwich occurs in an order[20] of the Council for 1 February 1459 (Tingey, 1910). Apart from condoning the use of hops in domestic brewing, the order was effectively granting a monopolistic commercial brewing franchise to whoever took the occupancy of a renovated quay in the city. The order was worded as follows:

It was moved and granted that the quay lately purchased of the Abbot Wendling shall be repaired and constructed with all possible haste, according to the discretion of the Chamberlains and their council, so that it may be used by (deserviri) one man for brewing beer. And it is granted that no foreigner or anyone else, of what condition he be, shall brew beer for sale within the city except only he who shall dwell there in the said quay. Except that every citizen shall brew beer for his own and domestic use. It is also granted that the barrels to be ordained for beer shall be assayed according to the assize used in other places, and that the Mayor of the city shall supervise the assize of the said barrels.

The quay had obviously fallen into disrepair during the sixty-odd years since it was first let to the city, an event precisely recorded by Blomefield in 1806:

This year [1398], brother *John* Abbot of *Wendling* let to the city the messuage and key in *Cunsford*, belonging to his convent, which laid between the land late *John de Dunston's* (and then the Lady *Audele's*) on the south, and the churchyard of St. *Clement* in *Cunsford*, and the tenement belonging to the city, formerly *Hugh Holland's* on the north part, the kings-street, west, and the river *Wensum*, east, together with the advowson of St. *Clement's* church there, and 6s. 8d. rent; the city was to hold the whole for 600 years, at 13s. 4d. yearly rent.

Twelve years after the order encouraging beer-brewing at the quay, the use of hops in brewing became forbidden in Norwich, since they were now considered to be 'unholsom

for mannes body'. The same applied to sweet gale ('gawle'), a plant commonly used in brewing in medieval northern Europe (Behre, 1999). Ale was from henceforth to be the drink of the populace, as the following demonstrates:

CLXXIII.- Assembly on Friday, 8 March 49 H.VI. [1471].
It is notified by the Mayor to the common council, that a grievous complaint is abroad in this city about the common beer brewers, concerning and about their weak and unwholesome brewing. And upon this, the persons underwritten are elected to taste and assay all and singular the brewings of the said common brewers, upon due warning to be given them thereon by such brewers at a suitable time. So that the present ordinance shall follow the effect of a certain ordinance here made for the brewing of beer, in a certain assembly held here on the Friday next after the feast of S^{t} Valentine in the third year of King Edward IV. [17 Feb. 1468] namely, in the second Mayoralty of Richard Brasier, with a few words now newly added and expressed in the mother tongue in the following form. The common ale brewers of this cite shall not brewe to sale but tweyn maner of Ales. And also that they shall not brewe nowther with hoppes nor gawle, nor noon other thing which may be founde unholsom for mannes body upon peyne of grievous punysshment. (Two persons were elected in each Ward as tasters.)

Around twenty years later, the 1489-90 accounts of the priory of St. Margaret, Kings Lynn, give us much detail about the parochial expenditure of the time, including an expense entry which simply says: 'In le hoppys … 20s.' There is no indication as to whether these hops were imported, or grown locally, but, in the context of other expense items, they must have been used for brewing beer.

Just before the end of the 15th century, in 1498 to be precise, complaints were made in Norwich when the price of beer increased, but the quality of the product declined. The *Art or Mystery of Berebruers* had been set up in London in 1493 thus officially making the use of hops in brewing a respectable act, as long as they were 'clean' and/or 'sweet'. Accordingly, this proclamation was issued in response to complaints from the populace about breaking the Assize, and sets prices for the different types of beer available in the City of Norwich. The following is from the *Records of Norwich* (Tingey, 1910):

CCLVII.- In the time of Richard Ferrour Mayor [1498-9].
Meeting (communicatio) of the Alderman concerning the sale of Beer. Because the price of malt has risen in the Market it is agreed that the price of the barrel shall be raised forthwith. Wheresoever before this they used to sell a barrel of the best beer at 2s. and of the weaker beer at 16d., they shall now sell the best at 2s. 4d. for the barrel and the weaker at 20d. Done on Monday next after the Feast of Corpus Christi 13 H. VII [18 June 1498].

THE PROCLAMACION FFOR BERE

The Meire of this Cite commaundeth on the Kinges behalue that alle maner brewers that shall brewe to sele from hensforth within this cite kepe the assise according to the statute thereupon made. And where as be the aduyce of his counsel for diuerse consideracions [he] assigned the berebruers w^{t}in the cite to sell to alle the Kynges subgettes a ferken of the best bere for vij^{d} and a ferken of the next bere for vd, where as they solde a fore for iiij^{d} the ferken of smalbere and for the vj^{d} the ferken of best bere. And nowe it is comme to his knowlege that the same berebruers use to sell a ferken of the best bere some tyme for viij^{d} and a ferken of the next some tyme for vj^{d} or elles the people can not haue it. And some tyme they haue bere wtin them and wole not delyuer [to] the people whan they comme accordyng to the prise assigned, and that the same bere is nowe thinner and wers drynk for the people than it was when they solde the ferken for vj^{d} and iiij^{d}. Wherfore he streitly chargeth on the Kynges behalue that euery berebruer fromhensforth make good and sufficient drink bothe of the best and also of the next accordyng to the value of the prise thereupon set and assigned, upon peyn of forfeture of such as shall be founde the contrary. And ouer this if ony man aswele of the cite as of the contre pay ony more from hensforth than vijd for the ferken of the best bere and v^{d} for the ferken of the smalbere or if the berebruer will not so late hym haue it, late hym comme to my maister the Meire and he shall se hym restored of that that he pay more. And ouer that he shall do punyssh the offendours in this behalue for the wele of alle the Kynges lige people, so that alle other shall inowe be ware by them in tyme to comme, accordyng to the good rules and customes of this cite. (fol. 35).

By the very fact that 'beer' was originally referred to as 'Flemish Ale' or 'Flanders Beer', there is an inference that it is an alien drink, brewed by aliens, and consumed by aliens. Such sentiment lasted up until the time of Andrew Boorde (1490-1549), who, in 1542 published Compendyous Regyment or Dyetary of Health, which is reckoned to be one of the first books concerned with domestic medicine. Boorde's eulogising of ale and haranguing of beer includes a crude, albeit somewhat amusing, comparison of the appearance and drinking habits of Englishmen and Dutchmen:

Ale is made of malte and water; and they the whiche do put any other thynge to ale than is rehersed, except yest, barme, or goddes good, doth sophysticall there ale. Ale for an Englyssheman is a natural drynke. Ale must have these properties, it must be fresshe and cleare, it must not be ropy, nor smoky, nor it muste have no werte nor tayle. Ale shulde not be dranke under .v. days olde. Neue Ale is vnholsome for all men. And sowre ale, and dead ale, and ale whiche doth stande a tylte, is good for no man. Barly malte maketh better Ale than Oten malte or any other corne doth: it doth ingendre grose humours: but it maketh a man stronge. Beere is made of malte, of hoppes, and water. It is a naturall drynke for a doche man. And nowe of lete dayes it is moche vsed in England to the detry-

ment of many Englysshe men; specyally it kylleth them the whiche be troubled with the Colycke and the stone, and the strayne coylyon; for the drynke is a colde drynke yet it doth make a man fatte, and doth inflate the bely, as it doth appere by the doche mennes faces and belyes. If the beere be well served and be fyned and not new, it doth qualify heat of the lyver.

By the end of the 15th century, many Norfolk people must have developed a taste for the new style of hopped beverage, for the customs records for the period show increasing levels of hop and beer imports. This is particularly the case for Lynn, where during 1503/4 over 2½ tons of hops (in 21 pokes) were shipped in by the Hanse merchants and other north European traders (Gras, 1918). Over the same period, 1,200 lb. of hops and some 3,700 gallons (26 pipes) of beer were shipped out of Lynn around the coast to neighbouring East Coast ports. There was also a significant import trade in hops and beer at Yarmouth, and, further south, at London and the Cinque Ports.

The first brewer to enter the Freedom of the City of Norwich was Peter Kentyng in 1414/15 (2 Hen. V.). He was followed within twelve months by Thomas Weylond (3 Hen. V.). Whether these men were ale- or Beer-brewers is uncertain, but, in 1450, when admissions to the Freedom were reorganised, brewing was no longer recognised as an employment category. The first beer-brewer to be enrolled was John Peterson in 1491/92 (7 Hen. VII.). Another Peterson, Peter, was enrolled in 1506/7 (22 Hen. VII.), and it was probably he who died in 1513 (NRO NCC Wills, Johnson 236), describing himself as 'berebruer.' Fourteen beer-brewers were enrolled as Freemen between 1491 and 1551, ten of these being admitted in the years 1506-39 (Rye, 1888).

The earliest archaeological evidence for the use of hops in brewing in Norwich comes from the discovery of a charred hop fruit which had been deposited in a 15th century cesspit in Pottergate (Murphy, 1985a). The cesspit also contained assemblages of charred cereal grains, such as barley, wheat and oats, and nearby samples of germinated barley (malt?) were recovered from a cellar. Thus, there is a strong suggestion that this was a brewery on the site. Prior to a disastrous fire on 25 March, 1507, there is ample evidence that this site at Pottergate (designated 149N) was intensely occupied. The high standard of living enjoyed by the occupants of around five houses fronting Pottergate, is reflected in finds from the debris of their foundations and cellars, and gives us an insight into domestic life of early-Tudor times (Evans and Carter, 1985). As Murphy explains:

The hop fruit from cesspit 1042 provides the earliest record of hops in Norwich from a context strongly implying utilisation … the find is of considerable interest in that it represents the first archaeological confirmation of a gradual change in the area from ale to beer-brewing – the documentary evidence for which has so far been little used.

In another article in the same publication, Atkin (1985) describes the archaeology of a site on Alms Lane, Norwich (site 302N), from which it is evident that there was a brewing site there during the years 1275-1400. The rest of the site was occupied by an iron-working complex, but both activities seem to have been defunct by the beginning of the 15th century. The site at Alms Lane was more intensively sampled than any other site excavated by the Norwich survey. Evidence at the site clearly indicates past cereal processing activity, including malting. As Murphy (1985b) said of the plant material:

This assemblage is composed largely of cereal grains which had been deformed as a result of germination before carbonisation. Amongst the better-preserved grains hulled barley predominates. The remains of developing 'sprouts' are visible on many of the barley grains … The context of the sample – an oven fill – leaves little doubt that this carbonised assemblage was produced as a result of poor temperature control whilst barley malt was being dried in the oven … At Alms Lane, conditions were unsuitable for pollen preservation, and no macrofossils from flavouring plants were identified. Macroscopic remains of hops, including fruits and bracts, have been identified at other sites in the city, however.

From an earlier era, hop fruits were common in early medieval deposits at an ancient waterfront site under Whitefriars Street car park, but it is thought that these specimens may have arrived there via dispersal by natural sources (Ayers and Murphy, 1983). As the authors explain:

In 1979 a trial trench was sunk south of the River Wensum and west of Whitefriars Bridge to investigate Saxon and medieval use of this part of the waterfront. A shelving gravel beach was uncovered which had been consolidated by levels of Late Saxon brushwood matting to form a firmer surface, probably for the beaching of river craft. The evidence suggests that the area fell into disuse in the late 11th century, presumably following commercial disruption entailed by the construction of the cathedral. Fruits of hop occurred in eleven samples. The hop is often common in alder carr in East Norfolk (Tansley, 1953) and there are pollen records spanning most of the Flandrian (Godwin, 1975) … The early medieval boat from Graveney contained large numbers of hop fruits and bracts which probably represented the remains of an imported cargo (Wilson, 1975). The hops from Whitefriars Street may likewise be related to imports of the crop, but it is possible that female inflorescences containing ripe fruits could have been gathered in nearby carr or carried to the site by river.

Period of export	Port of export	Total value of beer
		£. s. d.
13 November 1480 - 28 September 1481	Lynn	5 0 0
29 September 1482 - 9 April 1483	Great Yearmouth	10 6 8[a]
29 September 1483 - 29 September 1484	Lynn	9 6 8
11 November 1486 - 29 September 1487	Lynn	11 12 8[b]

a - including ¾*d*. worth of ale; b - including £1. 3*s*. 4*d*. worth of ale.

More recently, a few fruits and bracts of the hop have been recovered from waterlogged 11th century cesspits at the Magistrates' Courts (site 450N), finds which led Murphy to remark: 'The identifications from these cess pits establish with reasonable certainty that hops were being used, though for what purpose remains uncertain.' Hop fruits were discovered at another nearby site (Site 421), but only in river foreshore deposits where natural dispersal could not be excluded (Murphy, 1987). Wilson, in her brief history of the hop in northern Europe, remarks that: 'At three sites in Norfolk, a significant increase of "*Humulus/Cannabis*" pollen occurs about the beginning of the Roman period, and in Saxon times, possibly representing hop cultivation …'

Peter Murphy (1985b), when reviewing the Norwich hop finds at Whitefriars Street, Pottergate, and Alms Lane, succinctly summarises the situation regarding the use of the hop in brewing in that city:

> Thus, although there are grounds for thinking that hopped beer may have been produced in Britain from the 10th century, there is no firm evidence for the use of hops before the later Middle Ages in Norwich.

To return to more recent times, White's *Norfolk Directory* for 1845 lists only three hop merchants in the whole of the county, perhaps indicating the relative insignificance of the crop. They were: William Hankes, of St. Miles' Church Street, Norwich ...'maltster and hop merchant'; Edward Wright Etheridge, of Stoke-Ferry ...'spirit, seed and hop merchant, chandler and maltster'; Robert Sillett, of Broad Street, Fakenham ...'hop and seed merchant.'

In White's 1883 *Directory*, Wm. Chapman & Son were the occupants of Loddon Mill. They were described as: 'millers and corn, coal, seed, cake, malt, hops etc. merchants, manure agents, farmers, vessel owners, wharfingers and water carriers.'

Towards the end of the 15th century, brewing in Holland became an expensive and precarious business, mainly due to a dearth of fuel and raw materials, brought about by a series conflagrations. Accordingly, it became necessary to ship small quantities of beer from England. Shipment was mainly from the East Anglian ports of Lynn, Great Yarmouth and Boston, using vessels owned by merchants from Holland and Zeeland. Some customs records survive, and indicate the value, rather than the volume of the amount shipped. The table above (from Kerling, 1954) gives some details of Norfolk transactions:

How much longer hop cultivation could have survived in East Anglia is a matter of conjecture, for, by the early years of the 20th century, hop-growing in the UK generally was in severe decline. Thus, we find that in 1908, hop prices collapsed, and within a few months some 5,000 acres of hop-gardens in Kent were being grubbed up. The general malaise that pervaded hop-growing was exacerbated by WW1. The writing had, in fact, been on the wall for some time, as can be seen by the 1890 Select Committee Report, in which it was noted that British beer was becoming significantly less hopped (mainly due to vatted beers falling out of favour), and that there were increasing volumes of hops coming in from overseas (mainly Germany, at that time). Between 1880 and 1914, about one-third of the hops consumed by UK brewers were deemed to be imported. By 1910, the acreage under the hop in the UK was well under half of its 1878 zenith, then, during WW1, it collapsed even further to a mere 16,000 acres by 1918.

References

1. By 1786 it was 1.6d. per lb. for English hops, and there was a wartime rise to 2½d. in 1801. After much lobbying by the hop-growing counties, the rate on indigenous hops was reduced to 2d.

per lb. in 1806. Even so, this rate meant that 1cwt. of hops carried a duty of almost £1, something that penalised merchants, factors, and brewers who needed to carry stocks. The tax was especially problematic in years of glut, because, with the lower value of the crop, it represented an unwieldy percentage of the selling price. When the duty was repealed, in 1862, the rate was 1½d. per lb. for English hops, and 2d. per lb. for the imported product.

2. Lord Ernle was also known as R.E. Prothero – see *English Farming Past and Present*, 1917.

3. He means young woods, still sometimes called 'springs' in Essex; they were cut down for hop-poles .

4. At that time Hedingham Castle was the family seat of the Earls of Oxford – the de Vere family. The castle was built, it is thought, by Aubrey de Vere, who fought with William, Duke of Normandy at the Battle of Hastings, and received Hedingham as his reward in 1066. In 1142, Aubrey de Vere III was made Earl of Oxford by the Empress Matilda. The de Veres owned Hedingham until 1592.

5. Young is quoting here from Rev. John Howlett, who was vicar of Great Dunmow around 1800. In the same treatise, Rev..Howlett also provides minute details as to the methods of cultivation, picking, drying and packing of hops, as practised in Essex in his day. The chief sorts grown, apparently, were, the Kentish, Essex, Worcester, Farnham, and Flemish. Of Young, Raven (1895) says: 'Arthur Young, of Bradfield Combust, though as a farmer practically unsuccessful, was able by his writings to bring agriculture under the notice of the more refined classes. His father was a Prebendary of Canterbury and Rector of Bradfield Combust. Of all his works, the "Farmer's Tour through the East of England" (1771) concerns us most. About ten years after its appearance, which ominously coincided with his own failure in an Essex farm, he is found farming in Bradfield, and in 1787 he made the first of those French tours by which he is best known … Shortly after his French tours a Board of Agriculture was established, and Mr. Young was its first secretary.' The Young family home had been at Bradfield Hall, nr. Bury St Edmunds, for over two hundred years, and, befitting his status, as Secretary of State to the Board of Agriculture, Arthur owned a London address in Sackville St., W1. Young went blind in 1811, and died in 1820; he is buried in Bradfield church.

6. The *Bury and Norwich Post* for 11 June, 1797, reported that 'The Society of Arts, Manufacturers and Commerce have awarded the gold medal to Lewis Majendie of Castle Hedingham for planting 7 acres with Ash.'

7. An area near the river, behind Crown Street.

8. Details to be found in Vancouver's *General View of the Agriculture of the County of Essex* (1795).

9. Hedingham hops were especially esteemed for their size and flavour .

10. Compare this price with the price of 200s. (£10) per cwt. in 1787.

11. In 1767 there were 38 acres at Colne Engaine.

12. If the Select Committee returns are taken into account, then there was one acre in Essex in 1886, not five.

13. Tye Hall was next to 'Dukes' the home of Thomas Crush during the latter years of the 17th century.

14. Meaning that the plant is found in hedgerows; is perennial, and flowers in July.

15. Interestingly, Baxter reports that hops were first successfully cultivated in Kent in 1693. The hop-growing industry around Farnham became so extensive that in 1729 Professor Bradley regarded the town as 'the first capital Town for Hops in Britain.'.

16. In 1602, however, the price of hops became very high and the growth was increased. It was then £10 per cwt.

17. The first part of this report of hop cultivation in Stowmarket, including Mr Rout's tabulation of expenses, first appeared in the second volume of *Annals of Agriculture*, which was published in 1784. On page 162, Young says: 'Upon a former occasion [July 4, 1782] I had examined the culture of hops at Stowmarket, and shall insert here the notes I took …'

18. No other Norfolk acreage figures are included in that particular Select Committee report.

19. Edward III reigned from 1327-1377.

20. CLXI.- Assembly on Thursday, the Vigil of the Purification of the Virgin [1 Feb.1459].

Bibliography

Almack, B. (1845) 'Agriculture of Norfolk.' *J. Royal Agricultural Society of England.* V: pp.307-357.

Anon ('A Gentleman') (1769-70) *A New and Complete History of Essex From a Late Survey*. 6 volumes. Chelmsford.

Anon (1733) *Instructions for Planting and Managing Hops and for raising hop-poles*. Drawn up and published by Order of the Dublin Society. Dublin.

Anon (1846) Library of Agricultural and Horticultural Knowledge. 4th edn. Lewis: J.Baxter.

Atkin, M. (1985) 'Excavations on Alms Lane (Site 302N)', *East Anglian Archaeology*. 26, pp.144-260.

Aubrey, J. (1718) [1975] *The Natural History and Antiquities of the County of Surrey*. Vol. III. London. Facsimile edition published by Kohler & Combes, Dorking.

Ayers, B. and Murphy, P. (1983) 'A Waterfront Excavation at Whitefriars Street Car Park, Norwich, 1979', *East Anglian Archaeology*. 17, pp.1-60.

Banister, J. (1799) *Synopsis of Husbandry*. London: G.G. & J. Robinson, London.

Barrett, C.R.B. (1892) *Essex: Highways, Byways and Waterways*. London: Lawrence and Bullen.

Beckett, G., Bull, A. and Stevenson, R. (1999) *A Flora of Norfolk*. Privately published.

Behre, K-E. (1984) Zur Geschichte der Bierwürzen nach Fruchtfunden und schriftlichen Quellen. In Zeist, W. van, and Casparie, W.A. (eds.) *Plants and Ancient Man: Studies in Palaeoethnobotany*. Rotterdam: Balkema,

Behre, K-E. (1999) 'The history of beer additives in Europe – a

review', *Vegetation History and Archaeobotany*. 8, pp.35-48.

Berry, A. (1922) *Eighteenth Century Sudbury*. Ipswich: Suffolk Books (Suffolk County.

Bingham, E. *Castle Hedingham in Olden Times*. (Reprinted by Maurice & Anne Stockhill).

Bird, C.J. (1990) *Pictures From the Past*. Halstead: Halstead and District Local History Society.

Boys, J. (1793) 'Agricultural Minutes, taken during a ride through the counties of Kent, Essex, Suffolk, Norfolk, Cambridge, Rutland, Leicester, Northampton, Buckingham, Bedford, Hertford, Middlesex, Berkshire and Surry, in 1792', *Annals of Agriculture*. XIX, pp.72-146.

Bradley, R. (1729) *The Riches of a Hop-Garden explained*. London.

Britnell, R.H. (1986) *Growth and Decline in Colchester, 1300-1525*. Cambridge: Cambridge University Press.

Brown, A.F.J. (1969) *Essex at Work 1700-1815*. Chelmsford: E.R.O. Publications, No. 49. Essex County Council.

Bullein (also as Bulleyn), W. (1579 — there is also a 1562 edn.) *Bulwarke of Defence against all sicknesse, soareness, and wounds that do daily assaulte mankind*.

Bullein, W. (1595) *Governement of Health*. London.

Chapman, A.C. (1905) *The Hop and its Constituents*. London: Brewing Trade Review.

Cooper, A. (1994) *Heart of Our History*. Bulmer Historical Society.

Cooper, A. (1998) *Our Mother Earth*. Bulmer Historical Society.

Copinger, W.A. (1902) *History of the Parish of Buxhall*. London: H. Sotheran & Co.

Darling, H.S. (1961) 'Hop Growing in England', *J. Royal Agricultural Society of England*. 122, pp.82-96.

Dickson, R.W. (1805) *Practical Agriculture: A Complete System of Modern Husbandry*. 2 Vols. London: Richard Phillips.

Dutt, W.A. (1900) *Norfolk*. London: J.M.Dent.

Ellis, E.A. (1965) *The Broads*. London: Collins.

Emmison, F.G. (1961) *Tudor Secretary: Sir William Petre at Court and Home*. London: Longman Green

Emmison, F.G. (1966) *Catalogue of Essex Parish Records 1240-1894*. 2nd edn. Chelmsford: E.R.O. Publications, No. 7. Essex County Council.

Emmison, F.G. (1970) *Elizabethan Life: Disorder*. Chelmsford: Essex County Council.

Emmison, F.G. (1978) *Elizabethan Life: Wills of Essex Gentry and Merchants*. Chelmsford: E.R.O. Publications, No. 71. Essex County Council.

Emmison, F.G. (1980) *Elizabethan Life: Wills of Essex Gentry and Yeoman*. Chelmsford: E.R.O. Publications, No. 75. Essex County Council.

Emmison, F.G. (1986) *Essex Wills (England). Vol. 3, 1571-1577*. Boston: New England Historic Genealogical Society.

Ernle, R.E.P. (1912) *English Farming Past and Present*. London: Frank Cass.

Evans, D.H., and Carter, A. (1985) 'Excavations on 31-51 Pottergate (Site 149N),' *East Anglian Archaeological Reports*. 26, pp.9-143.

Evans, W.J. (1886) *Old and New Halstead*. Halstead.

Fisher, F.J. (1935) The Development of the London Food Market, 1540-1640', *Economic History Review*. 5, pp.46-64.

Fuller, T. (1862) *The History of the Worthies of England*. London.

Gibson, G.S. (1862) *Flora of Essex*. London: Wm. Pamplin.

Goodchild, R.H. (1993) 'Hop Growing: A personal account of hop growing in Essex in the decades following the Second World War,' *Brewery History*. No. 73, pp.5-10.

Gras, N.S.B. (1918) *The Early English Customs System*. Harvard Economic Studies XVIII. Cambridge, MS.

Grimmond, C.K. and Kay, S.A. (1952) *History of the Borough of Sudbury*. Sudbury: published by the authors.

Harrison, Wm. (1577) *Description of England in Shakespeare's Youth*. London.

Hartlib, S. (1651) *His Legacie, or An Enlargement of the Discourse of Husbandry used in Brabant and Flanders*.

Henslow, J.S. and Skepper, E. (1866) *Flora of Suffolk*. London: Simpkin & Marshall.

Hind, W.M. (1889) *The Flora of Suffolk*. London: Gurney & Jackson.

Holderness, B.A. (1984) 'East Anglia and the Fens', in Thirsk, J. (ed.) *The Agrarian History of England and Wales, 1640-1750*. Vol. V, pt.1, Regional Farming Systems. Cambridge: Cambridge University Press.

Hollingsworth, Rev. A.G.H. (1844) *The History of Stowmarket*.

Hope-Moncrieff, A.R. (1909) *Essex*. London: Adam & Charles Black.

Hornsey, I.S. (2003) *A History of Beer and Brewing*. Cambridge: Royal Society of Chemistry.

Hudson, W. (1892) *Leet Jurisdiction in the City of Norwich, during XIIIth and XIVth centuries*. Seldon Society Publication No. 5. London: Bernard Quaritch.

Kelly's *Directory of Essex*. 1882.

Kelly's *Directory of Cambridgeshire, Norfolk and Suffolk*. 1900.

Kelly's *Directory of Norfolk and Suffolk*. 1908.

Kelly, S. (1893) 'The Economic Topography and Structure of Norwich c.1300' in Priestley, U.M. (ed.) *Men of Property: an analysis of the Norwich Enrolled Deeds, 1285-1311*. C.E.A. Studies, Norwich.

Kent, N. (1794) *General View of the Agriculture of the County of Norfolk*. London.

Kerling, N.J.M. (1954) *Commercial Relations of Holland and Zeeland with England from the late 13th century to the close of the Middle Ages*. Leiden: E.J. Brill.

Kirby, J. (1735) *The Suffolk Traveller, or Journey Through Suffolk*. Ipswich: J. Bagnall.

Lawrence, J. (1801) *The New Farmer's Kalendar: or monthly remembrancer*. 3rd edn.

McIntosh, F. (1998) *The Decline of Stourbridge Fair, 1770-1934*. Friends of the Dept. of English Local History, University of Leicester.

Malster, R. (1995) *Britain in Photographs: Stowmarket*. Stroud: Alan Sutton Publishing.

Malster, R. (1996) *250 years of brewing in Ipswich*. Ipswich: Malthouse Press.

Marshall, Mr. (1818) *The Review and Abstract of the County Reports to the Board of Agriculture*. 5 Vols., Vol. III. Eastern Department. London: Longman, Hurst, Rees, Orme and Brown.

Mathias, P. (1959) *The Brewing Industry in England 1700-1830*. Cambridge: Cambridge University Press.

Moens, W.J.C. (1905) *Register of Baptisms in the Dutch church at Colchester for 1645-1728*. Lymington: Hugenot Society of London.

Morant, P. (1748) *The History and Antiquities of the most ancient Town and Borough of Colchester*. London: W.Bowyer.

Morant, P. (1768 & 1816) *History and Antiquities of Essex*. 1st edn. London. 1768 & 2nd edn. Chelmsford.

Murphy, P. (1985a) 'Environmental Reports', in Evans, D.H. and Carter, A. Excavations on 31-51 Pottergate (Site 149N). *East Anglian Archaeology*. 26, pp.66-69.

Murphy, P. (1985b) 'Plant Remains', in: Atkin, M. Excavations on Alms Lane (Site 302N). *East Anglian Archaeology*. 26, pp.228-234.

Murphy, P. 'Plant Macrofossils', in Ayers, B. Excavations at St.Martin-at-Palace, Norwich, 1981. *East Anglian Archaeology*. 37, pp.118-125.

Murphy, P. (1991) Plant Macrofossils from sites IAS 3104 (Buttermarket), IAS 3201 (ABC cinema) and IAS 5203 (Greyfriars Road), Ipswich. *Ancient Monuments Laboratory Report* 33/91. London: English Heritage.

Nicholson, W.A. (ed.) (1914) *A Flora of Norfolk*. London: West, Newman & Co.

Norden, J. (1594) *Speculi Britanniæ Pars: An Historical and Chorographical Description of the County of Essex*. London. Also Camden Society Publication, 1840.

Norden, J. (1607) *The Surveyors Dialogue*. London.

Norris, E.G. (1906) 'A Seventeenth century Inventory', *Essex Review*. XV, pp.169-175.

Owen, D.M. (1984) 'The Making of King's Lynn', *Records of Social and Economic History*, ns. ix. Published for the British Academy by O.U.P. London.

Owen, W. (1765) *Book of Fairs*.

Peaty, I.P. (1992) *Essex Brewers*. New Ash Green: Brewery History Society.

Petch, C.P., and Swann, E.L. (1968) *Flora of Norfolk*. Norwich: Jarrold.

Pocock, D.C.D. (1959) 'England's diminished hop acreage', *Geography*. 44, pp.14-21.

Pocock, D.C.D. (1965) 'Some former hop-growing centres', *Agricultural History Review*. 13, pp.17-22.

Pollington, S. (2000) *Leechcraft: Early English Charms, Plantlore and Healing*. Hockwold: Anglo-Saxon Books.

Powell, W.R. (ed.) (1956) 'Ongar Hundred', in *Victoria County History of Essex*. IV. Published for the Institute of Historical Research by Oxford University Press.

Pusey, R. (1985) *A Discovery of Old Essex*. London: Robert Hale.

Raven, J.J. (1895) *History of Suffolk*. London: Elliot Stock.

Raynbird, W., and Raynbird, H. (1849) *The Agriculture of Suffolk*.

Reyce, R. (1618) *Breviary of Suffolk*.

Reyce, R. (1902) *Suffolk in the XVIIth Century: The Breviary of Suffolk by Robert Reyce, 1618*. Lord Francis Hervey (ed.) London.

Riches, N. (1967) *The Agricultural Revolution in Norfolk*. 2nd edn. London: Frank Cass.

Rye, W. (1885) *A History of Norfolk*.

Rye, W. (ed.) (1888) *Calendar of the Freemen of Norwich from 1317 to 1603 by John L'Estrange*. London: Elliot Stock

Scot, R. (1574) *A Perfite Platform of a Hoppe Garden*.

Slicher von Bath, B.H. (1963) *The Agrarian History of Western Europe A.D.500-1850*. London: Edward Arnold.

Smedley, N. (1976) *Life and Tradition in Suffolk and North-East Essex*. London: J.M.Dent & Sons.

Smit, H.J. *Bronnen tot de geschiedenis van den handle met Engeland, Schotland en Ierland*. Vol I, 1150-1435; Vol II, 1435-1485.

Smith, H. (1925) *A History of the parish of Havering-atte-Bower, Essex*. Colchester: Benham & Co. Ltd.

Steer, F.W. (1950) *Farm and Cottage Inventories of mid-Essex, 1635-1749*. Chelmsford: E.R.O. Publications No. 8. Essex County Council.

Thirsk, J. (ed.) (1967) *The Agrarian History of England and Wales, Vol. IV, 1500-1640*. Cambridge: Cambridge University Press.

Thirsk, J. (1997) *Alternative Agriculture: A History from The Black Death to the present day*. Oxford: Oxford University Press.

Tingey, J.C. (1910) *The Records of the City of Norwich*. 2 Vols.

Trimmer, K. (1866) *Flora of Norfolk*. London: Hamilton Adams & Co..

Trist, P.J.O. (1971) *A Survey of the Agriculture of Suffolk*. County Agricultural Surveys, No. 7. Royal Agricultural Society of England, London.

Tusser, T. (1573) *Five Hundreth Points of Good Husbandry, united to as many of Good Huswifery*.

Vancouver, C. (1795) *General View of the Agriculture in Essex*. London: W. Smith.

Waller, W.C. (1895) 'Essex Field Names. Part I. The Hundred of Ongar, and the Half Hundreds of Harlow and Waltham', *Transactions of the Essex Archaeological Society*. N.S. 5. pp.144-181.

Waller, W.C. (1898) 'Essex Field Names. Part II. The Hundreds of Beacontree, Chafford and Barstable with the Liberty of Havering', *Transactions of the Essex Archaeological Society*. N.S. 6. pp.60-83.

Waller, W.C. (1898) 'Essex Field Names. Part III. The Hundreds of Rochford, Dengie and Thurstable', *Transactions of the Essex Archaeological Society*. N.S. 6. pp.258-277.

Waller, W.C. (1900) 'Essex Field Names. Part IV. The Hundreds of Winstree and Tendring', *Transactions of the Essex Archaeological Society*. N.S. 7. pp.65-92.

Waller, W.C. (1900) 'Essex Field Names. Part V. The Hundreds of

Lexden and Freshwell', *Transactions of the Essex Archaeological Society*. N.S. 7. pp.285-327.

Waller, W.C. (1902) 'Essex Field Names, Part VI. The Hundred of Hinckford', *Transactions of the Essex Archaeological Society*. 8, pp.76-103; 199-222.

Waller, W.C. (1902) 'Essex Field Names, Part VII. The Hundreds of Uttlesford and Clavering', *Transactions of the Essex Archaeological Society*. N.S. 8. pp.295-323.

Waller, W.C. (1906) 'Essex Field Names, Part VIII. The Hundreds of Dunmow and Witham', *Transactions of the Essex Archaeological Society*. N.S. 9. pp.68-100.

Waller, W.C. (1906) 'Essex Field Names, Part IX. The Hundred of Chelmsford', *Transactions of the Essex Archaeological Society*. N.S. 9. pp.156-179.

Wee, H. van der. (1963) *The Growth of the Antwerp market and the European Economy. Vol. II. Interpretation*. University of Louvain.

White, W. (1844) *History, Gazetteer, and Directory of the County of Suffolk*.

White, W. (1848) *History, Gazetteer, and Directory of the County of Suffolk*. (there is a 1970 reprint).

Wilson, D.G. (1975) 'Plant remains from the Graveney boat and the early history of Humulus lupulus L. in W. Europe', *New Phytologist*. 75, pp.627-648.

Young, A. (1768) *A Six Weeks Tour through the southern counties of England and Wales*. London.

Young, A. (1771) *A Farmer's Tour Through the East of England*. 4 Vols. London.

Young, A. (ed.) *Annals of Agriculture and other useful arts*. II, 1784; XVIII. (Inscribed: 'collected and published by Arthur Young, Esq., FRS' and 'printed for the editor, London').

Young, A. (1794) 'A Tour Through Sussex', *Annals of Agriculture*. XXII.

Young, A. (1797) *A General View of the Agriculture of the County of Suffolk*. London: Macmillan.

Young, A. (1804) *General View of the Agriculture of the County of Norfolk*. London.

Young, A. (1807) *A General View of the Agriculture of the County of Essex*. 2 Vols. [hops, pp.31-56] (and 1813 edn.).