SUFFOLK TRADITIONAL ORCHARD GROUP

ADVICE NOTE 6 (STOGAN 6)

COBNUTS IN SUFFOLK (and East Anglia)

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Fig 1

CONTENTS


Fig 2


Fig 3


Fig 4

Figs 1-4 Male catkins, female flower, fresh green nuts and ripe nuts of the Suffolk cobnut variety Cosford.

COBNUTS IN SUFFOLK (and East Anglia)

"Fylberds be profitable for them that have the olde cough yf they be bet with honey and eaten; yf they be stamped with the outwarde huskes and olde grece of a sow or a beare this will cause heere to come up in the balde places." ***Peter Trueris, AD 1526***

INTRODUCTION

The terms **plat**, applied to a piece of land, is often used in southern England to refer to a **nut plat**, a piece of land planted with nuts for cropping**,** also called here in Suffolk a **nuttery**. Today, almost all extensive commercial nut plats that remain are in Kent, although other plats once existed elsewhere especially in Nottingham, Gloucestershire and Sussex. Suffolk Traditional Orchard Group's survey has already found that Suffolk (and the claylands area of Norfolk) supported many nut trees usually as part of, or adjacent to, old farm orchards and rarely, if ever, in large plantations.

Historically cobnuts were an important traditional farmstead crop across Europe, from Scandinavia and Germany to Spain and Greece. Cobnuts were, and still are, extensively grown commercially in Southern Europe, especially Italy and Spain where the long involucre species *Corylus maxima* predominates. Some greengrocers still remember Barcelona Nuts, Turkish Nuts, and Naples Long, as dried cobnuts imported for the Christmas market. These imports continue today, but the names have changed.

However, in world terms the largest producer of hazel and cobnuts is Turkey: 600,000 metric tonnes in 2010, over six times that of USA and Italy, the next largest producers. Pasta Guiaduja, invented in Italy as a solid marzipan-like confection of ground cobnuts and used as a chocolate replacement in Italy in 1940 is today a fashionable Italian ice-cream flavour which developed into Nutella. Nutella was first marketed in 1964, a creamy version with a small chocolate content. Today Nutella is a world brand, and made worldwide, but using a range of different local ingredients, including, in the USA, both nuts and soya. In Turkey, *tahin pekmez*, so-called "Turkish Nutella", is a much older food product.

This Advice Note has been written to provide a background to the cobnuts tradition and make recommendations about restoration and new planting. It could not have been written without the very considerable advice and guidance of Meg Game of the Kentish Cobnuts Association.

THE GENUS *CORYLUS*

In almost all historic and gardening literature there is considerable widespread confusion between the various *Corylus* species, and between coppiced hazel grown for coppice wood, and species and varieties grown for a nut crop. Although there has been much DNA analysis work done for agricultural and breeding purposes, it has not been directed at sorting out the relationships or separations between species. The following is a current view of the species and varieties and their cultivation history..

There are about 15 species known worldwide; three or four species are considered to be components of currently cultivated cobnuts:

C. avellana, the native hazel, also called cob, has short lobed **involucre** (sometimes loosely called a **husk** or **bract**) around the small more or less spherical nut, but markedly shorter than the nut in length. The nut of the pure hazel is usually less than 1.5cm in length.

C maxima, the filbert, or in East Anglia the cob, has a long involucre lobed at its apex that extends beyond the, usually, elongated larger nut. This long involucre was also called the beard, hence possibly "full beard".

Both species have a chromosome count of 2n = 22, and some botanists consider that these are two forms of one single species. Some modern floras separate them, for example Stace (New Flora of the British Isles) states that in the UK *C. maxima "is rarely self-sown"* and that crosses of ***avellana x maxima*** *"have been reported from Suffolk"*. In fact both species and their innumerable crosses self-sow wherever birds and squirrels let them. Both can be up to 10m high. It is widely known that some 'wild' hazel plants sold for hedging and new woodland planting are known to originate from a Kentish cobnut plat near Plaxtol, Kent, and are also imported as seedlings *C. maxima* cobnuts from Holland, thus polluting the native *C. avellana*. In old orchard sites in Suffolk where cultivated cobnuts are found, the hedges often contain cobnut seedlings (some of which bear very nice nuts!).

C. americana (American Hazel) has wide involucre, longer than hazel and jagged at the tips only. It has crossed with *avellana* and *maxima* and may be a constituent of some varieties.

C. colurna (Turkish or Cypriot Hazel) has small nuts and a long involucre split into numerous spiky lobes almost to its base, is normally a large tree with a single trunk, but old multi-stemmed trees are mixed with other cobnuts in two Suffolk sites. C.*colurna*, which does not crop well here, is reported as being a parent with *maxima* or *avellana*, of the **trazel**, **x colurnoides** a small group of hybrid varieties bred in the 20th C in Canada, now available in England..

Hazel, ***C. avellana***, a species native of the UK to Russia and south to Alps, was a foraged crop here for millennia. It is thought (Roach 1985) that bronze age traders, or Romans, introduced ***C. maxima*** a species from Eastern Europe, Turkey and the Caucasus, to England. Turkish hazel, ***C. colurna*** (Fig. 5), a tall tree species, was introduced subsequently at an unknown date, and the American Hazel, ***C. virginica,*** was introduced, last, from the USA probably in the 17th century.

Fig. 5 *Corylus colurna*
Turkish Hazel

Fig. 6 *Corylus virginica*
American hazel

Although early cultivated cobnut varieties may have been long involucre varieties, breeding and selection by English nurserymen and enthusiasts from the 18th century introduced intermediate involucre length forms with rounder nuts. In addition, since the 1950's continental varieties have been widely promoted and sold in England. These too may have short involucres and look like giant hazels. Recent imports are from Germany, Spain, USA and Holland, and as time progresses the old distinction between the short involucre ***avellana*** and long ***maxima*** is becoming blurred (and may never have been significant).

Illustrations of hazels and cobnuts on the internet are frequently incorrectly named, varieties sold by nurseries do not always match those grown under the same name in the National Fruit Collection at Brogdale in Kent, and information in modern floras does not always fit the facts.

STERILITY AND FERTILIZATION

Corylus male and female flowers are separate; male flowers are the familiar catkins and the female flowers are the tiny red brush-like flower cluster most frequently found on two year old twigs, borne on the same tree. **Cobnuts and hazels are generally self-sterile**; the female flower requiring pollen from a different individual, or clone, to be fertilized. *Corylus* species, crosses and varieties flower over a long period; some are in flower by Christmas and others as late as March. Male catkins shed pollen over just a few days; female flowers may be fertile for several weeks. Although the flowering periods of all the species do not necessarily coincide, crossing between many of the known species occurs, and hybrids are common, especially between ***C. avellana*** and ***maxima***.

It is now recognized that pollination between cobnut varieties is complex, and that many varieties once thought to pollinate each other do not do so, and that in the UK hedge hazels may be the most reliable sources of pollination, for all hybrid cultivars. In western USA research was needed to find pollinators for European cobnut varieties as there is no local *Corylus* that can do that, and there two or more varieties are selected to grow together.

COMMON NAMES

Originally the names **hazel** and **cob** were considered to be alternatives for the short involucre **C. *avellana*** species, and **filbert** (or "full beard", filbard, etc.) the long. Today, especially in East Anglia, **cob** or **cobnut** is the widely used name for filberts, large *avellana* types and the many intermediate crosses, with **hazel**, the small native *avellana*. In the early 19th century the **Kent Cob**, with a very obviously a long involucre ***C. maxima,*** the filbert***,*** was called **Lambert's Filbert.** Modern nursery catalogues now seem to muddle along with whatever name they like and list all these species and crosses together. We have chosen to call the wild *C avellana* **hazel** and the cultivated forms of whatever species or cross **cobnut.**

VARIETIES OF COBNUTS

The varietal names are quite recent. It is widely reported in the literature that the crosses and varieties we know today were first selected, introduced to cultivation and cultivated in England in the 18th century or even later, but this is no longer widely accepted (see references). Many varieties we have today were probably in existence centuries, even millennia, before that, grown as seedlings or from layered coppice stools, but only since the early 19th century were the many new varietal names applied by Richard Webb of Reading.

Also at this time nurserymen began to market their products and maintained specific named clones. As a consequence, it is no longer realistic to separate the terms and cobnut is now used as a generic term for all cultivated *Corylus* species, hybrids and varieties.

For a crop that has such a long history in England it seems surprising that prior to about 1750 only a few cultivar names are recorded. However, by 1830, nurseries stocked 40 or more, of which only a few more successful forms survive today, many of them the earliest. The most successful cultivars were, and are:

Kent Cob
Introduced in 1830, but perhaps present earlier and first grown in Kent. This is a filbert, with long leaf-like involucres. It is common in Suffolk as old stools, and is the best cropper of the old varieties. As with perhaps all cobnuts in England, Kent Cob is pollinated by hedge hazels nearby.


Fig. 7 White Filbert


Fig. 8 Kent Cob (Lambert's Filbert)

White Filbert
This variety has the longest, most bristly tube-like involucres of all the cobnuts. It is the second or third most commonly found variety in Suffolk. It does not appear to pollinate Kent Cob, despite literature to this effect.

Cosford Cob
This variety has a shorter involucre type than White Filbert. It does not pollinate Kent Cob. It is also said to be self-fertile, almost certainly untrue. It is an old variety said to be given the name in 1816 of Cosford Hundred in Suffolk near Ipswich (although there are several other Cosfords in England!). Widely planted in East Anglia, Kent, Nottingham and spread right across the English speaking world (as a pollinator!). A large proportion of nuts have the involucre split on one side exposing the nut inside.

Frizzled Filbert
This variety (Fig. 9), with deeply jagged stiff involucres, may be the next most frequent in Suffolk.

Fig. 9 Frizzled Filbert

Fig. 10 A purple-leaved cobnut

Red Filbert

Red Filbert, with a red testa/skin round the nut kernel, is otherwise similar to White Filbert, and has been found in Suffolk orchards but is not at all common. (Unfortunately this name has recently been used, incorrectly, for the red- and purple-leaved varieties, such as *C. avellana purpurea,* which do produce small, but still edible nuts.)

In the 18th century **Daviana, Garibaldi, Shah** and **Webb's Prolific** and several other varieties were named or bred (by Richard Webb of Reading). **Pearson's Prolific,** a variety from the Nottingham area was also sold in Suffolk. Nottcutt's of Woodbridge was a major supplier, propagating by stool layering, until the 1980's; in the 1960's they listed 12 cobnut varieties.

Since the 1930's, a number of *avellana* type and cross varieties, with stiff jagged involucres shorter or only just longer than the large nut have been introduced. **Butler** and **Ennis** are from the USA. **Gunslebert** (aka Gunslebener) and the largest nut of all **Hallesche Riesen** (in England anglicised to Hall's Giant) were named in 18th century Germany. These, especially the last variety, produce large nuts early in the bush's life. None are very prolific croppers here, by comparison with **Kent Cob**, and may be better suited to warmer continental summers.

The best collection and the place to see many of these varieties growing is the National Fruit Collection at Brogdale near Faversham in Kent.

THE COBNUT TRADITION

Coppicing *Corylus* on a regular basis stops cropping for several years, perhaps as much as 8 or 12 years, until the main stems are large enough to generate the short top branches. Frequent coppicing will eliminate cropping entirely, any dormouse habitat managers please note. For this reason coppicing is not compatible with nut production, and nut plats were, and should be, managed very differently to hazel for rods and thatching materials.

In early English literature plats were often recommended for sloping open ground, to avoid early frosts (especially during the "little ice age"), with a few well-spaced larger trees to provide shelter without excessive shade. Standard apples and pears, even walnuts, are recommended in early literature, with sheep grazing in spring and summer. Most of the commercial Kent plats are on the well-drained, poor soils of the Lower Greensand, the

major cobnut area in England. However, almost every farm house in Suffolk, perhaps in south Norfolk and Essex too, seem to have grown cobnuts. There are market records, and a few memories, of cobnuts being sold in small market towns, notably Debenham, Eye, Framlingham, Wickham Market, and Diss, just over the Suffolk border in Norfolk. Although this information needs some interpretation, it seems that cobnuts were a valuable cash crop, probably picked early to avoid (red) squirrel and bird (especially jay and jackdaw) predation, and sold immediately, as a fresh "green" crop in August or early September for immediate local consumption. "Green" cobnuts are quite sweet and juicy and have a unique flavour, unlike dried and stored brown cobnuts. In this respect the commercial Kent Cobs in Kent are today mostly sold green.

In central Europe from central France through Germany, Switzerland, Austria, Hungary etc., the tradition is old and continuing, mainly in the extensive fruit growing areas that support the old "scattered orchard" tradition, such as Saarland, Württemberg and Schwabian Alb in Germany, much of the lakesides of Switzerland, northern Italy, Slovenia and Austria, and the steppe fruit areas of Hungary. The number of nut products in supermarkets in these regions reflects this, including nut drinks, nut syrups for adding to coffee, and the ubiquitous Nutella. Walnuts are also common in these regions too.

STAGES IN THE DEVELOPENT OF A COBNUT KERNAL

Fig. 11 Left
Stages in the development of a cobnut kernel 1

Initially the soft green shell is filled with a sweetish fibrous pulp and a small fertilized "embryonic" nut, at the top of the shell.

Fig. 12 Right
Stages in the development of a cobnut kernel 2

At this early stage grey squirrels bit the top off the nut while still on the tree and eat only the tiny immature nut. Later, squirrels usually remove the nut from the tree and break open more of the shell to reach the larger nut. At this stage jays and jackdaws join in!

Fig 13 Left
Stages in the development of a cobnut kernel 3

As the nut ripens, over about two weeks, the small kernel (see left**) swells and the pulp diminishes until almost gone and the kernel almost fills the shell (**see right**).**

At this stage the cobnut is ripe enough to crop for fresh consumption, the date varying with the variety but usually from mid-August onwards.

The nut should be left for the shell to harden and brown if picked for storage - rarely possible in Suffolk!

CULTIVATION OF COBNUTS

Two methods of tree management may be seen in England today. One generates low half-standard plants with a short single trunk, or "short leg". This also suits trees **grafted** onto hazel or cobnut seedling rootstocks, but, in Kent this method was mainly used for trees on their own roots. Another regime produces multi-stemmed bushes with a small number of long lived trunks, always on their own roots.

Cobnut plats in Kent

Kent has by far the largest plats and produces more nuts that any other county. All Kentish cobnuts, of all varieties, are grown on a "short leg". It is a traditional method that originated with cobnut plants that were propagated from layers or suckers and were on their own roots.

Fig. 14 Young Cobnut on a "short leg" in the National Fruit Collection. Brogdale Kent. This plant is grafted onto seedling hazel.

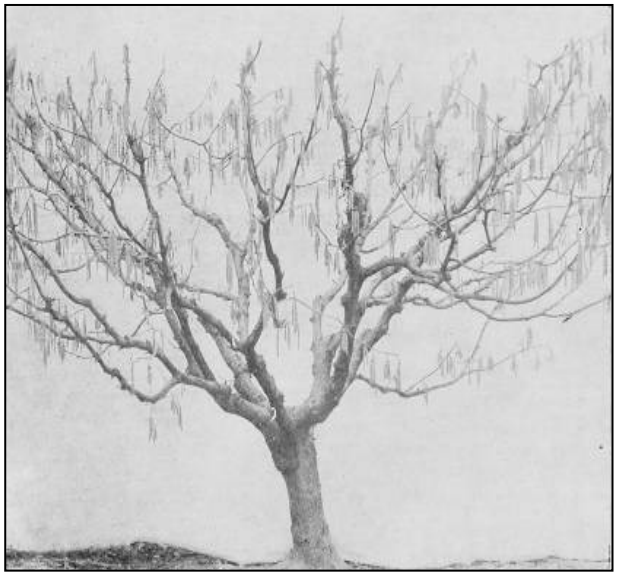

Fig. 15 Cobnut on a "short leg" as illustrated by MAF, 1930.

All new plats in Kent today are still grown on a single stem, most on their own roots, but some grafted trees have been planted.

The “short leg” method was the only one described and recommended by the Ministry of Agriculture in the first 50 years of the 20th century, and has been widely described and copied by gardener writers, perhaps beginning with the early versions of the Gardeners Assistant from 1888 to 1927, but also including RHS publications, such that the method is now widely tried by those who have read the RHS’s “The Fruit Garden Displayed”.

In Kent stools may be well over a hundred years old, and, although originally all were grown as a single stem, in very old plats the centre “trunk” may have rotted away and new shoots from the base been brought on to make a multi-stemmed tree or stool.

Fig. 16
Old Kent Cob trees grown on a “short leg”, with regularly replaced stems. The leg is now a large basal bole.

Silverhill Plantation, Kent.

Photograph courtesy of Meg Game.

Fig. 17
Meg Game, secretary of the Kentish Cobnut Association, in an old nut plat in Kent. The original “short legs” have been largely been replaced over the years by selected new growth from the base. The productive branches have been maintained at a height that can be cropped without ladders, and allow light into the canopy.

In Kent the basal shoots and suckers, called wands (also locally elsewhere called “spawn” or “gourmandizers”) are removed annually. The height of 6 to 10 main stems is kept no higher than a picker can reach to pick the nuts, and also allows light into the canopy. Old abandoned nutteries in Suffolk are often so shady there is almost no crop. Nuts were, and still are, widely picked and sold when green, in August or early September. There was probably always a proportion of crop picked later when brown and ripe and stored, but in some years forced drying may have been required to store well.

There is ample evidence of nut trees being grown in this manner in Kent in the 19th century and perhaps even earlier.

In western USA, where predators are kept at bay, and the nuts allowed to ripen, the nuts can be shaken from trees much later, and swept off the ground by mechanical collectors, from stems that are permitted to grow far taller than would be practical where they are hand-picked.

Outside Kent and England cobnuts are grown as multi-stemmed stools; trees are not generally grafted but propagated from rooted cuttings.

Cobnuts in Suffolk nutteries

Fig. 18
30-40 year old multi-stemmed cobnuts in a herbicide cleared strip, a “new” orchard, associated with an old farm in Framsden, Suffolk. These are nicely tended (unusual in Suffolk!)

The main stems have been left longer than those in Kent, more in keeping with the Suffolk style.

In Suffolk, and where we have seen them elsewhere in East Anglia (except where gardeners have been influenced by the RHS’s Fruit Garden Displayed and its adherents), cobnuts were grown as 5-10 stout stems from a multi-stemmed stool.

There are descriptions of vast arching stems creating tunnel-like aisles in nutteries (e.g. Gertrude Jekyll) and several nut walks still exist in old gardens (such as Girton College, Cambridge) which would have been managed similarly, perhaps without keeping much, if any, check in their height. In Suffolk farm orchards the nut stools are often in a group of 4 - 20 in one or two rows; sometimes just one or two huge stools survive. These can be vast, up to 3m across at the base and some over 10m high, and in some cases it appears that they may never have been coppiced, suggested by solid wood boles with a small number of

main stems, and a multiplicity of erect “gourmandizers” or “wands” off the lower stems. In some parts of England, including the Suffolk sandlings and in Scotland, hazels and cobnuts have grown without any coppicing resulting in multi-stemmed, even single stemmed, trees with few wands or suckers.

Also coppice stools and in Kent managed trees may begin to develop unmanaged appearances after some decades without management.

Unlike the modern commercial Kent plats, these old stools do not seem to have been reduced in height (but may have been in the past). Recent observations suggest that if a cobnut (or a hazel) is allowed to grow without being coppiced, it naturally produces a small number of heavy main stems, and does not initially generate the mass of uniformly sized wands that result from coppicing.

Just as apples and pears were not routinely pruned in many small farm orchards, it seems cobnuts were often just allowed to grow without check, apart from removing the wands off the lower stems annually, or occasionally. Since fruiting wood is generally on two year old short branches this regime is very practical, and fits with the current Kentish Cobnuts Association recommendations.

It also seems likely that sometimes ancient stools with very large main stems became too large (some have been found collapsed) and were rejuvenated by coppicing. In several Suffolk orchards cobnut stools are so large that dead centres have developed, even to the extent that there now appears to be a rough circle of separate stools.

Excessive shading too reduces cropping. Nut plats were also fertilized (with long acting fertilizers such as shoddy, old sheep’s wool and fish meal) to increase crop and nut size.

Text books, such RHS Fruit Garden Displayed, describe a pruning technique called “brutting” or bratting, said to weaken the subsequent branching growth and stimulate flower production. The short branch ends at the upper ends of the main stems were snapped halfway by hand in summer, not removed but left hanging to stimulate repeated branching. However, we can find no evidence of this in Suffolk and it is not known from Kent either. In Kent annual pruning in winter to cut off the developing leaders and stimulate bracing is carried out and this was probably done in East Anglia too and is recommended as a means to keep the production within reach.

GRAFTED COBNUTS

The only easily visited nut plat using grafted plants on a short leg is the National Fruit Collection (NFC) at Brogdale, near Faversham, Kent. This method is the **only** method suitable for cobnut scions which have been grafted onto seedling hazels or cobnuts. The method can also be used for nuts on their own roots (but the multi-stemmed method is far more practical, and is the only one traditionally used in Suffolk).

The graft position may be just above ground level, or up to 60cm (2ft) high on the rootstock stem, but in every case suckers from the rootstock (known as “spawn” or “wands” by nut growers) must be rigorously removed, thus higher the graft the better. Also any whip-like shoots (called colloquially “*gourmandizers”* or in Kent *“wands”*) that grow vertically straight up from the main shoot, the bole, or from the fruiting trunks must also be removed to maximise the growth of fruiting branches further up the stems.

Grafting was used for the NFC's nut collection because the different cultivars were obtained as twigs and grafted onto seedling hazel rootstocks. The method requires considerable labour and attention to pruning, especially where the graft is close to the ground. Gardeners buying grafted plants in many instances are unaware that they had been grafted, and by allowing the suckers to swamp the original scion in time lose the original purchased variety. Unfortunately, to this day nurseries sell both grafted plants of some varieties (often imported) and nuts on their own roots, and may not always tell their customers (possibly some do not know themselves). Grafting is a relatively quick and easy propagating method, given some simple manual skill, and it is not surprising that it is widely used. An alternative method is to etiolate root cuttings in heated high humidity boxes with rooting hormones (the method used by Dutch nurseries), or (more traditionally) to pile earth onto coppiced cobnut stools and after a year cut out the partially rooted new growth and grow them on as new plants.

Grafted cobnuts are **not** part of an East Anglian tradition and should not be planted in traditional orchards, or as part of a Higher Level Stewardship (HLS) orchard creation or restoration. It is also very difficult to maintain a grafted plant without losing it to its suckers, unless the graft is high up on a stem at least 40cm above soil level, very obvious, and the owner must be aware that it must be managed it in this way

Grafted plants are considered viable for a commercial organization that can adjust the management to suit.

PESTS AND DISEASES

Throughout East Anglia today Grey Squirrels prevent any harvest unless controlled, often taking the small undeveloped nut before they have swollen, and preventing the harvest of even green cobnuts. Undoubtedly this has reduced the enthusiasm to plant cobnuts. Jays and Jackdaws appear to take nuts later while still green, but when the kernel has fully expanded.

Other pests and diseases can be a problem as in all dense monocultures, but in these small nutteries the other major problem is the nut weevil, a tiny brown beetle that feeds on leaves and very young nuts laying eggs early in the year on tiny nuts in May and June. The grubs feed on the growing kernel, and perhaps other material inside the shell and emerge from the nut through a neat round hole as the nut matures in late August and is turning brown, passing the winter as a pupa in the soil below.

In the past, the ground beneath the nut trees was dug over in winter which reduced the adult nut weevils (by frost or enabling birds to predate them). Some nut varieties, Kent Cob, and especially White Filbert and Butler, seem more susceptible than others. In Suffolk some nutteries seem to be completely free of nut weevil, others inundated. See also reference: "*Pruning Kentish Cobnuts"*

PLANTING A NEW NUTTERY

Later versions of this Advice Note will contain sections on propagation and with recommendations for planting new sites.

Fig. 19 A new planting in Kent of Kent Cob on "short legs". These are not grafts, but are propagated from rooted cuttings or layers.

The spacing in the line is about 4m, and about 8m between rows. Older planting have narrower spacings between rows.

Photograph courtesy of Meg Game.

RESTORING OLD COBNUT STOOLS TO PRODUCTION

This process has begun in several Suffolk sites, but only since 2010, and it too early to comment on the method. Recently discovered cobnut sites come in two forms; those that have been abandoned for many decades and are now vast, up to 10m high multi-stemmed trees with dense growth of wands; and stools that have been coppiced, and are a mass of young more or less uniform growth, in most cases not yet flowering.

The method being tested (2012) is as follows:

- ♠ Remove, and continue to remove annually, all slender unbranched growth (wands) as close to the old base as possible.
- ♠ Select 6-10 large stems and remove all others to close to the base, choosing stems that tend to lean outwards leaving a relatively open centre. This will require considerable manpower and power machinery for a large stool, and may require many major stems to be removed entirely.
- ♠ Cut the retained stems off at 1.6-2m high and allow new growth to produce a small head (somewhat like a small pollard with young growth that will flower within two years.
- ♠ Then maintain each "pollard head" with annual pruning to maintain the production young growth (see Pruning Kentish Cobnuts, Kentish Cobnuts Association, 2001).

Fig. 20 Suffolk cobnut grove, last coppiced perhaps 20 years ago, in the longstanding belief that they were hazels, and used as a source of thatching broaches. Glemham, Suffolk.

Fig. 21 Old cobnut stool, with main stems and wands, never, or not recently, managed, a solid bole over 3m in circumference. Thrandeston, Suffolk.

This is a well-documented method of returning a routinely coppiced stool to production and is known to succeed. However, we do not know how successful this will be with very old large unmanaged stools, or the exact time scale it will take to production, and it is suspected that may be a number of losses. It is planned to update this advice note in the future with this information.

Fig. 22
A row of cobnuts just inside a hedge on an old farm orchard site, now lawn. These are the last remaining original orchard trees, now managed by coppicing and probably only producing a nut crop briefly before being re-coppiced.
This is at Framsden, Suffolk, but similar rows are present in many sites in Suffolk.

HAZEL AND COBNUT FOR THATCHING

Throughout East Anglia and, no doubt, everywhere in England, coppice managed hazel has been an important crop for producing thatching materials. The number of broaches (in Suffolk pronounced **"**brortch**",** and often used as a generic term for all the various different hazel rods), sways, staples (the longest rods bent into hairpins), cross-rods, spars and liggers (longer lengths used on and over the ridge) was very considerable. This was not just for house thatch, but in vast amounts for thatching ricks. Hay ricks, which stored loose hay, or, after about 1900, hay in small bales, had to last for up to a year or more; corn ricks, where whole stooks were stored dry before threshing during late autumn and winter, usually for much less. Every rick was thatched with cereal long-straw (without the seed heads) and with lots of structural hazel to hold it all in place.

A small 60 acre farm might thatch 12 ricks a year, and a large 500 acre estate maybe 50 a year. It has been estimated that 10 ricks a year might require a 7-10acre hazel plantation cut in sections every year, each section on a 10 year rotation (this estimate is tentative as no one has tested the premise!)

The increased use of baling machines, plus the arrival of combine harvesters after WW2, has eliminated rick building. Today hazel broaches for house thatching are imported from Spain and the Baltic states, and many small coppiced hazel areas have been grubbed up, or abandoned and no longer coppiced.

This, combined with changes in farm ownership and the loss of the orchard and cobnut growing tradition by farming families, has had some interesting results. A number of small cobnut plantings still exist, but have been thought to be hazel for decades and so been managed by intermittent or desultory coppicing. This has lost the original tree forms but does not lose the stools.

One of the best examples is on the Thornham Estate, where the memory that they were once cobnuts still exists. In several other cases only the discovery of large cobnuts, usually just the shells, on the ground below the stools demonstrates that these are not hazels planted for thatching materials. In one instance in Suffolk a plantation of cobnuts on a farm estate was forgotten, probably in the early 20th C, and maintained as source of coppiced wood for rick thatching! Several of these coppiced cobnut sites are now in the process of restoration.

Hazels coppiced regularly and repeatedly extend the area of the stool far faster than uncoppiced stools.

Fig. 22
A very large old cobnut in a what was once a market garden, probably originally a small farm orchard, with over 15 main stems and many wands, one of several large cobnuts on the site, of a variety similar to Cosford.

The girth round the base of the solid wooden bole is 7.36m. At this size and age it is not possible to know how it might have been managed in the past. The site has many other old fruit trees.
Thrandeston, Suffolk.

Photograph courtesy of Nicky Rowbottom

Fig. 23 A hazel in Scotland with a single main stem, not unusual where the trees are unmanaged, although more frequent is a multi-stemmed tree with 3-10 stems.

Photograph courtesy of Helen Read

Fig. 24 A nuttery on the southern edge of Breckland. 23 stools of at least two varieties and self-sown seedling cobnuts. Once part of a much larger orchard site associated with a large farm and present on maps of 1884, this is all that remains. The trees are spaced 9-10m apart, further than on most sites, and they were presumably expected to be big.

This site was only "discovered" in July 2012, by Diane Ling (in picture).

REFERENCES

Modern references are very limited, no DNA analysis data is readily available without purchasing papers, and the internet is full of mistakes, incorrectly named images, and wild guess work. Some early references and out of print texts are available as digitized reprints, but most good sources are in the RHS or University libraries.

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Written by RBG Kew Principle Scientific Officer. (OOP) The text covers the world. Good but brief summary of cobnuts in England.

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Kentish Cobnuts Association www.kentishcobnutsassociation.org.uk produces newsletters (*"Cobweb"*) on all matters to do with cobnuts, about 3 times a year. Editor Meg Game. Also run courses on traditional Kentish cob pruning.

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"*The Fruit Garden Displayed".* Various authors including Harry Baker and Brian Self, RHS's 1951 to 1994. Only editions later than about the1970's have a section on Cobnuts, including the current 8th Ed. Describes the Kent method only. Has errors that were widely transmitted in the past about pollination and self-fertility, repeated the confusion over the identity of Red Filbert and purple-leaved filberts.

Where to see cobnuts

National Fruit Collection, Brogdale Farm, Faversham, Kent. August is the best time to see the crop on the trees. 41 varieties, but many German, Dutch or USA. Has most of the varieties known to be found in Suffolk. Also a Nut Festival in September some years, although not a wide range exhibited then.

Paul Read (with considerable assistance from Meg Game)
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Fig. 25 Which? Gardening, has also noticed the problem with grafted hazels!