### THE TREE DISPENSARY

The Uses, History, and Herbalism of Native European Trees



CHRISTINA STAPLEY

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## **Christina Stapley**

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### **Dedication and Acknowledgements**

This book is dedicated to my grandchildren, Elliott, Tighe, Carys, Samuel, and Natasha, hoping the trees of today may thrive throughout their lifetimes and beyond.

I would like to offer particular thanks to three colleagues. My dear friend Ruth Mannion-Daniels who has given tremendous support in many ways, ever since I first told her of my concept for this book. My friend and colleague in herbal history as well as herbalism, Anne Stobart, for her support and assistance on my visit to Holt Wood Medicinal Forest and since; and my friend Barbara Lewis who read the manuscript, advised, supported my work and much more. They have all accompanied me on this journey of discovery. I would like to thank my friends Linda and David Papworth for their continued encouragement and David for his excellent photographs of the birds in this book. My thanks also goes to the staff at the Weald and Downland Living Museum, for without my workshops and tree walks there, this book might never have been written.

### **Foreword**

**During my training as** a herbalist, I searched unsuccessfully for an in-depth book on trees in herbal medicine. Already a historical researcher and growing thirteen trees offering herb harvests, I found the more encyclopaedic books available did not encourage my interest. At the time, however, I had much to learn in other areas of medicine.

My real fascination with trees grew from researching in preparation for tutoring a historical herb workshop. *The A–Z of Medicinal Trees*. The workshop was held at the Weald and Downland Living Museum where there were fine examples of many of my own trees and several more. The interest attracted by that first and subsequent day courses and guided tree walks, when I was asked so many questions, encouraged me to delve further into their histories.

More than that, it brought a change in me. For years as a herbalist I had been walking about looking down for what was growing around my feet. The emphasis changed to looking up and I was delighted by the exquisite detail of tiny female flowers on trees, which I simply could not believe I had completely missed before.

I took photographs, pressed herbarium samples, harvested for a wider range of recipes and studied trees in my collection of old herbals. I increased my collection of items turned or carved from their wood. I listened to sap rushing up inside the trunks in spring, paid attention to the variation in sound that the rustling leaves make at different seasons, and felt the slippery sap covered inner surface between the wood and bark as I peeled it away for harvests. I watched associated birds, insects and animals and experimented with barks, catkins and leaves to produce dyes. The varying shades produced at different seasons and from trees in different environments is a valuable source of information in itself, revealing chemical changes as the trees react to their annual cycle and habitat.

Never again will a tincture or dried herb of tree origin be simply a name on the label and list of constituents, actions and indications. I hope as you read this book, written from personal experience and interaction with the trees growing around us, you also will feel a stronger connection and wish to explore, plant and care for them yourselves.

## THE TREE DISPENSARY



The Tree Dispensary presents a personal appreciation of the trees as the author has experienced them through everyday life, as a herb historian and herbalist.

"Getting to Know the Tree" sections cover a wide area of general knowledge from cultivation experience to cookery, wines, crafts, and folklore.

In the histories, having been trained by my archivist father to go to primary sources, I have allowed these to dominate the text. Voices from the past speak for themselves from my library of original herbals, rather than presenting a modern view of the past.

The herbalist's reference section is material selected from information that I compiled as a handy reference when prescribing and has additions from my own observations. In this, dosages and constituents are taken from a wide variety of sources including:-

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### **SPRING**



### Fraxinus excelsior - Ash - Oleaceae

ASH – Usefulness – The fruits can be pickled when young. They contain edible oil, similar to sunflower oil. The leaves, fruits, bark and sap have medicinal properties. The wood can be turned and has been greatly used since prehistoric times. From the handle of the "Iceman's" dagger in the Bronze Age to wheelbarrows and frames for the Mosquito bomber. Ash trees and the environment they provide support a wide range of wildlife, from the brown fritillary butterfly to bullfinches and the dormouse. Ash wood burns well, with little smoke. The ashes give potash and the bark has been used for tanning calf-skins. The leaves contain a green colouring and can be used as an over-dye on blues to give green.

*Dangers* – Ash trees are currently threatened by Chalara dieback, a disease caused by a fungus called *Hymenoscyphus fraxineus*. As the crown of the tree dies back it is usually deadly to the tree. Ash keys should not be fed in large quantities to domestic animals.

Getting to Know the Ash Tree – The black knobbly balls produced on year-old twigs and branches during winter make native ash trees easy to identify. I paid them little attention however, until one spring walking in the hills I found myself staring in wonder at a branch in full flower.

At the time I did not even associate it with the ash, only being familiar with the leaves and the possible height of over a hundred feet of these fast-growing, yet fairly long-lived trees. The identification really



Ash flowering.

surprised me. I had never realised the ash could be so fascinating. Perhaps I should have known that a tree with the importance in folklore and magic of the ash must have something very special about it.

The following year I was careful to watch for the opening of the flowers. Coming before the leaves in April, when partly opened, the panicles first reminded me of a stem of purple sprouting broccoli with maroon beads on the tips. Returning to view their progress, several days later, I saw the flowers were now opening out like mini seaweed with yellow branches having purple tipped pistils. The ovary, which will become the fruit, develops between the two pollen carrying stamens. Each flower is bi-sexual, but the male part dies

before the female ovary of that flower develops, ensuring that each is cross-pollinated from other trees. Since they are wind-pollinated they do not need petals.

The leaves commonly have eight to twelve leaflets in pairs, growing straight from the central stem with an added odd one at the end, although an occasional even numbered leaf occurs. They may seem slightly dull after the flowers, but have attracted a good deal of folklore, with even numbered leaves gathered for love divination. Additionally they have medicinal use and were also picked as a tea substitute in the nineteenth century. Diuretic and mildly purgative properties of the leaves should be kept in mind if you try this at home.

On days when I have taught hedgerow basketry and we used young, flexible ash branches, I recall how delighted the goat was to eat all the leaves left over. Young shoots and leaves have also been fed to deer. Should cows eat them, as apparently happened in the Godalming area

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in the early nineteenth century, butter from their milk was described as rank. However, cattle have been fed on the bark in Lancashire in past times when grass was scarce. A note of caution on ruminating animals, eating ash is listed in notes on poisons found in veterinary practice, with "acute impaction of the rumen" recorded. The amount eaten was not specified.<sup>3</sup>

Along with the leaves, the young, still tender and abundant clusters of seeds, known as ash keys have always been harvested to be powdered and prepared for medicine or pickled to accompany salads. In past years on historical woodland workshop days, I have introduced others to picking ash keys and making the pickle in white wine vinegar, sweetened with sugar. Ash fruits were also called in the seventeenth century peterkeyes or kitkeyes, each containing the seed near the stalk. In autumn the keys fly in the wind from the tree, twisting like tiny propellers and taking the seeds sometimes over long distances. With the aid of these, ash trees have a marked tendency to spread their young into gardens, and especially into gravelled paths, where they are not welcome, and so the ash has tended to be looked upon almost as a weed by many gardeners.

Neither past uses in medicine and cookery, nor the popularity of the wood for everything from tool handles to snooker cues seems to recommend it to modern ears. Transport has much to thank the ash for. The wood has provided frames for horse-drawn coaches, the Mosquito bomber plane, and the Morris traveller car. Ash has also provided veneer in interior fittings on trains<sup>4</sup> and had a role in boat-building. Cabinet makers named the interestingly patterned veined wood "green ebony".

In the north, many place names contain the Nordic term "ask" commemorating ash coppices or nurseries from the Middle Ages.<sup>5</sup> Askham Bryan is one. Ash trees were coppiced in the past and cut on a twelve to fifteen year rotation to give hop-poles, and building materials. Outer and inner layers of the light-coloured bark have both been used in medicine. Also the lye or wash from the ashes of the burnt wood can be used as a shampoo for dandruff, or an application to treat ringworm.<sup>6</sup>

Unpopular as it may be with some gardeners, over the past twenty or so years the occurrence of the fungal disease, ash dieback, that threatens ash in Britain, has made many turn to consider the role of ash in the environment. The leaves are important as a food for many species of moth, including the coronet and privet hawk-moth. After a long life, the deadwood of the ash supports the lesser stag-beetle, and the lovely, rare brown fritillary butterfly is attracted to the ash. Where it grows in the under-storey of woods, alongside the hazel, ash is host to dormice. Ash trees also provide nesting sites for birds from the larger owls and woodpeckers down to smaller redstarts and nuthatches.

Legends and Folklore. The saying, "if the ash before the oak we are going to have a soak, if the oak before the ash we will only have a splash" remains familiar to many even today. It refers to which tree will open leaves first. This is almost always the oak, as the ash is late with the flowering period coming earlier. Folklore of the ash is so much greater than simple weather lore. The ash is the eternal World Tree or tree of life in Norse legend. This Yggdrasil reaches across all nine worlds in Norse mythology with three great roots supporting it. Under one is the well of wisdom, under another is the Scandinavian Hades, and by the third root is a spring where the gods meet in council. The fate of men is determined by the Norns, maidens who dwell close to this root.<sup>7</sup>

Beliefs in the strength of the ash lingered on in Scotland over the centuries. The tree as protector against shrews, which were believed to cause lameness by running over the foot of a person or animal, is an extraordinary tale. The cure was supposed to be brought about by capturing a shrew that was then entombed inside an ash tree. The tree was asked for help and as it healed over the place where the shrew had been placed, so the lameness was expected to be healed. Gilbert White mentions this practice in the late eighteenth century.

While some believed the broomsticks of witches were made of ash, as with other useful trees, there is another set of folklore declaring the ash to be protective against witches and magic. In Ireland, ash wood was burned to keep the devil away and in Scotland in the eighteenth century John Lightfoot recorded new-born babies being given sap from the ash to protect them from witches and goblins. The ritual of passing a sick child through a hoop made by bending an ash sapling is recorded in the early  $1800s^{10}$  and again over a hundred years later. There is far more in legend and folklore than I can recount here.

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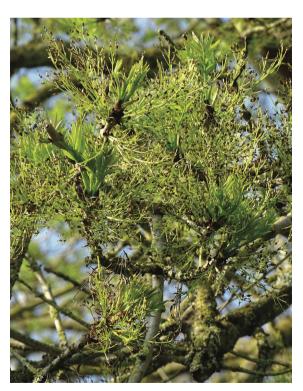
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### **ASH – History of Medicinal Use**

Ash is a native tree of the British Isles, which spread during the dominance of mixed oak woodland in very early times. Both the wood and the charcoal from ash trees are easily recognised and have been recorded from settlements during the Mesolithic period onwards. The highest numbers quoted by Godwin are from the north-west and Somerset on limestone areas. As well as charcoal finds, ash was also discovered to have been used in building track-ways, foundations for buildings and providing shafts and handles of tools and weapons.

The Anglo-Saxon period was a time when medicinal baths were used and these were made using tree barks and herbs. Ash and willow barks have anti-inflammatory properties and these could be applied in salves to ease wounded or inflamed parts of the body. Ash continued to be used into the second millennium for poulticing multiple injuries with



Ash with last flowers and leaf buds now opening.

fractures and bruising. We find the bark and flowers of the ash in the *Chirurgia* or book on surgery, written by the most important surgeon of Bologna, Theodoric (1205–1298) in 1277. Surgeons of this period knew ash as a mild styptic, repercussive to remove offensive matter and a regenerative agent, supporting growth of new tissue.<sup>1</sup>

In a manuscript of recipes from the fourteenth century, one has the fascinating title of "driving away wind in the ears". This title may of course be referring to inflammation in the ear from being in cold wind, or that may just be my modern mind working overtime. The branch from an ash tree is taken still green and placed in the full heat of the fire so that the sap will

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ooze out from the ends. This warm sap is put into the ear each night until the patient is cured.<sup>2</sup> The same method of gathering ash sap, which then has the addition of fat and other herbs, appears a century later in another ear treatment.<sup>3</sup> This time it is for an evil ear. We can only surmise as to whether this term refers to a build up of wax or an abscess. The second seems likely as ash was also used to treat festering areas producing pus, particularly in the mouth.

References to ash being used against serpents and their bites occur in the sixteenth century. Gerard recommends the ash as a diuretic to aid weight loss and with added nutmeg to provoke urine. Culpeper tells us the ash tree is governed by the sun and writes scathingly about the belief that adders are afraid of ash leaves and the tree. He supposes this has come from Pliny and Gerard. Culpeper points out that he has seen proof that adders have no such fear. He then approves the diuretic uses and repeats the great antidote of Matthiolus of Siena (sixteenth century doctor and naturalist) against poison and pestilence. This includes ash tree seeds and Culpeper writes, "I am very loath to leave out this medicine, which if it were stretched out, and cut in thongs, would reach round the world." (p.338).4

Just four years after the publication of Culpeper's herbal, Coles gives us the classification of ash leaves and bark in his *Paradise of Plants*; dry and moderately hot, with the seed, which he also refers to as keys, as hot and dry in the second degree. Again this is a moderate degree, not particularly heating. He recommends all parts of the tree including the roots for their diuretic properties in treating dropsy. Coles repeats all that we have read before but instead of only preparing the bark in vinegar as a poultice, he adds an alternative recipe to boil the leaves and bark in oil before applying to the stomach. Then he writes that the seeds, husks removed, not only help stitch in the side from wind, but are commended for rickets. They were also powdered with nutmegs to increase "natural seed and stir up bodily lust" (p.306).<sup>5</sup> He does not question the use against serpent bites.

In the 1694 *Bates Dispensatory*, edited by the doctor and self-styled professor of physic, William Salmon, we find ash keys included with water cress, pine tops and more, in a distilled water against scurvy. This aspect of use of the ash keys made them a popular country pickle. Many culinary recipes follow over the next two centuries. In the same year,

Pechey prescribes the juice of the leaves and tender twigs as a morning diuretic and the powdered seeds in wine for dropsy. He adds that the salt of the ash provokes sweat and urine.

In the following century, Miller in his *Botanicum Officinale* places more emphasis on treating the spleen and liver, as well as the stone. He records the bark being given successfully in other countries to treat intermittent fevers. In Ireland in 1735, Ke'ogh writes of the inner bark for treating fevers and the wood ash being applied to ringworm.<sup>6</sup> In 1790, Meyrick gives the strong leaf tea as a purge and repeats William Withering, affirming that the bark sometimes cures the ague. He backs up this claim for ash with fevers by including the statement by the physician Vander Mye from the previous century that the distilled water had been given in pestilential diseases with success.<sup>7</sup>

Summary. Use of ash bark dominates the early recipes, leaves also providing a diuretic drink. Belief in ash as a protector and treatment for serpent bites was criticised by Culpeper, but lived on in folklore. Other diuretic treatments for dropsy and urinary stones, and use as a mild purge for the liver and spleen continue throughout the history of ash use. All parts of the tree found their way into recipes, with outward applications as well as teas, distilled water and alcoholic extractions. Ash keys gain in popularity for their content of vitamin C in treating scurvy from the end of the seventeenth century. Ash is absent from several nineteenth-century herbals. However, in 1916 the leaves are still being gathered for treatments and this time gout is mentioned. See Herbalists' Reference for the modern view.

### **Recipes**

Extracted from A Collection of Receipts. 1746. "For a Dropsy. Take the Leaves of Ash-trees, as soon as they begin to come out, and double distil them; give nine Spoonfuls of this Water, with one Spoonful of Mustard-seed, in the Morning; and at four or five in the Afternoon, give a Spoonful of Mustard-seed, in the like Quantity of White-wine: This is recommended as never failing. When the Distemper is taken at first, rest from taking it for ten Days, and then begin again." (p.241).

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## FRAXINUS EXCELSIOR – Herbalists' Reference

The Parts of Ash Used for Medicine – The sap is harvested in early spring, the bark can be harvested a little later from two to three year old twigs. The fruits or keys are the next harvest and should still be green and quite soft. The leaflets are harvested without the stalk, in May or June.

**Dosage and Forms** – One heaped teaspoon of leaf to each cup of boiling water. Infuse for fifteen minutes. Dose: half a cup three times daily. Syrup of the fruits may also be made.

*Constituents* – The bark of ash contains salicylates. Other parts contain flavone glycosides, resins, tannin, mannitol, and fruit acids.



Ash keys and leaves.

Actions and Uses – The action of ash is largely to stimulate kidney function with resulting diuresis, which is helpful in oedema. Promoting excretion of uric acid indicates ash to treat gout and rheumatic conditions. As ash also has a diaphoretic effect, stimulating blood circulation to the periphery of the body, this makes it useful if the patient is feverish. The anti-inflammatory effect can be classed as moderate and is due to the coumarins inhibiting T-cells and prostaglandin biosynthesis.<sup>1</sup>

*Precautions and Contraindications.* Do not use the bark if the patient has a salicylate allergy.

#### Note

1. Mills S. & Bone K. *Principles & Practice of Phytotherapy*. (Churchill Livingstone. 2000). 149.