

CHARLES NEALE

Tree Reports and Site Surveys

9, Common Hill,
Steeple Ashton,
WILTSHIRE.
BA14 6EE

9th January 2026

Dear Mr and Mrs Wheeler,

At your request I undertook a site visit on 22nd December to inspect 2 large mature deciduous trees located at The Old Manor, Bradenstoke and have written a report detailed below. In addition, I have included print outs with the report which I feel may be of interest to you.

The trees, a Horse Chestnut and a Sycamore tree are located on the edge of the driveway and adjacent to a single storey brick built extension.

The Chestnut tree is, in my opinion, a dangerous tree and should be removed at the earliest opportunity. The reason for this conclusion is the extensive decay at the base of the tree. It is so serious that you can look through the base of the tree and see daylight through the other side and the weight above this point is considerable. I really do feel that you should ask the Tree Officer at Wiltshire Council to visit you on site to discuss this as soon as they have time available as they may be able to approve the removal of the tree without the normal 8/10 weeks consultation time that is normally standard for proposed tree works within a Conservation Area.

The Sycamore tree is also in a poor condition and I need to highlight the damage caused to the base of the tree with a chainsaw. I realise why this was done which was to erect a pair of metal gates and gateposts but this should never have been done and the tree will never recover from such a substantial wound (see my print out on CODIT) and Fungal growth (*Coriolus Versicolor*) is now infecting the tree.

What is of concern regarding both of the above trees is the truly awful tree work (often referred to as 'Topping') which has been done previously. Again this should never have been done and I have included information for you to read on this subject. The trees will never recover from this work and a significant hazard has instead been created.

'There is no 'Topping' cut that will not cause a tree serious injury. Topping cuts like codominant stem cuts, will always have infections because there are no natural

protection zones at the bases of the stems'. Extract from 'A New Tree Biology'. Alex Shigo.

Rot and dieback is clearly evident in the crown as well as a considerable number of epicormic shoots.

My recommendation is that both trees are felled and cut to ground level. In addition, a stump grinder should be brought in to grind out the stumps. This will reduce the risk of Honey Fungus infecting the area.

Finally, I would strongly recommend that you should plant two trees to replace the ones that you are proposing to fell and cut to ground level.
There are some important points to consider.

You should always choose a tree that suits your soil conditions.

It is important to choose a tree that will not only give you all year round interest but will also be of benefit to the wildlife such as the birds, bees, butterflies and small insects.

The replacement trees should never be planted in the same location as the trees that you have removed.

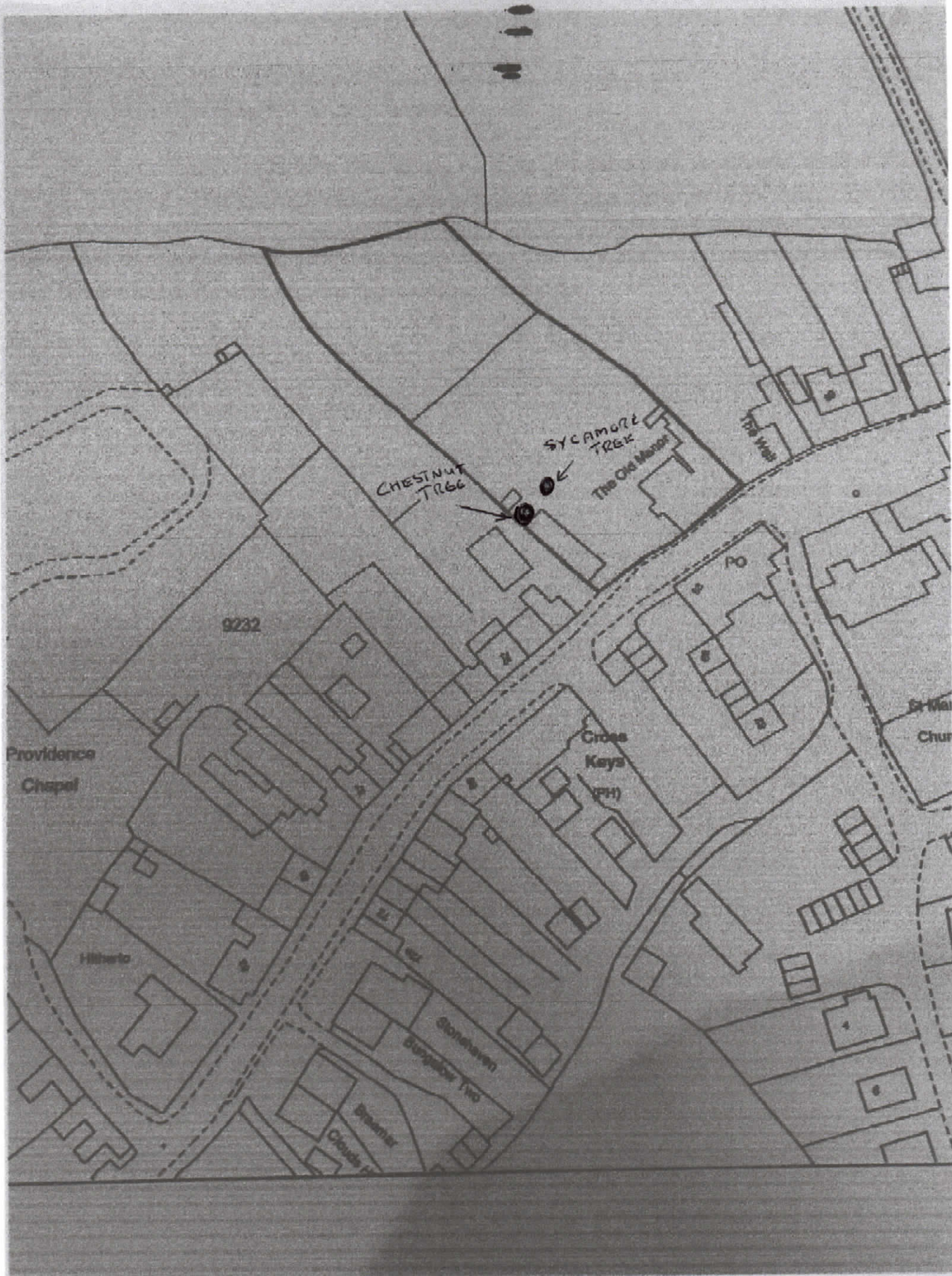
Always plant well away from any buildings to avoid problems caused to the buildings by the tree roots.

Lastly, you have a very large garden and therefore have many suitable locations to plant replacement trees. I would not recommend planting the replacement trees adjacent to the drive. The problem with this area is that the tree roots will suffer from ground compaction which can cause significant root problems.

As you will be aware, your property is located in a Conservation Area and, as a consequence, it is of paramount importance that no tree works are undertaken until you have discussed your proposals with the Tree Officer at Wiltshire Council and that you wait for confirmation from them BEFORE proceeding.

Please do not hesitate to contact me if you have any queries or require further advice.

Charles Neale, RFS Cert Arb
07977 494335









Compartmentalization of decay in trees

Compartmentalization of decay in trees (**CODIT**) is a model developed by plant pathologist **Alex Shigo** after studying wood decay fungus patterns.

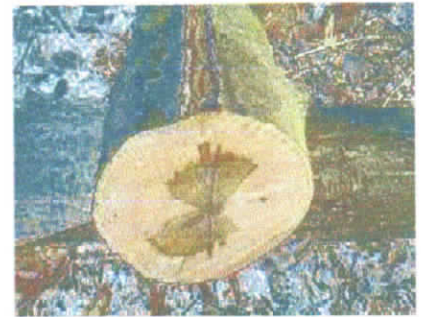
Theoretical background

In keeping with the theory of spontaneous generation, in which living things can develop from non living things, scientists traditionally believed that tree decay led to fungal growth. With the advent of germ theory, however, German forester **Robert Henig**, in the early 20th century theorized the opposite was the case, and developed a new model for tree decay: when trees are wounded, fungi infect the wounds, and the result is decayed wood.

Shigo expanded this theory to claim that when trees are wounded, they respond to the infected wood with both chemical and physical changes to limit the decay, which he called *compartmentalization*.

Process

According to CODIT, when a tree is wounded cells undergo changes to form "walls" around the wound, slowing or preventing the spread of disease and decay to the rest of the tree.



Example of compartmentalization, with radial and circular walling, in an *Acer platanoides* of 5 years



CODIT model walls labeled

Wk. 1 The first wall is formed by plugging up normally conductive vascular tissue above and below the wound. This tissue runs up and down the length of the stem, so plugging it slows the vertical spread of decay. Decays are plugged in various ways, such as with tyloses, polyphenolic deposits, and fungal substances and (in conifers) by the closure of the bordered pits linking vascular cells. This wall is the weakest.

Wk. 2 The second wall is formed by the thick-walled, lignin-rich cells of the latewood growth ring interior and exterior to the wound, thus slowing the radial spread of decay. This wall is the second weakest, and is continuous except where interrupted by ray cells (see next section).

Wk. 3 The third wall is formed by ray cells, which are groups of radiating cells oriented perpendicular to the stem axis, dividing the stem into segments not entirely unlike the slices of a pie. These groups of cells are not continuous and vary in length, height and thickness, forming a *maze*-like barrier to tangential spread of decay. After wounding, some ray cells are also altered chemically, becoming toxic to some microorganisms. This is the strongest wall at the time of wounding, prior to the growth of the fourth wall.

Wk. 4 The fourth wall, known as the *hurdle zone*, is created by new growth of specialized woody tissue on the exterior of the tree, enclosing tissue present at the time of infection from subsequent growth. This is the strongest wall, and often the only one which can completely halt the spread of infection by enclosing the wound with new wood. When only the fourth wall remains intact, the result is something most people have seen walking through the woods or in a park: a living tree with a completely rotted out interior. In such cases, all the tissue present at the time of injury has become infected, but new healthy tissue has been allowed to continue to grow outside of the infected zone.

Practical impact

By increasing understanding of how trees respond to decay, CODIT has had many applications. For example, arborists are frequently called upon to analyze the danger posed to people or property by a damaged or decaying tree. By knowing how decay is likely to spread, such hazard tree analyses may be more accurate, thereby preventing unnecessary tree removal, property damage, or injury.

Work done by Dr. Edward E. Gilman at the **University of Florida** shows that a wound's proximity to leaf mass greatly influences compartmentalization as well as wound closure.

References

DO's and DON'Ts in Pruning



Introduction

"Pruning is one of the best things an arborist can do for a tree but one of the worst things we can do to a tree"

-Alex Shigo

Pruning is the most common tree maintenance work. Proper pruning helps to selectively remove defective parts of a tree and improves the structure of a tree, thereby contributes to the overall tree health and structure and reduces the risk a tree may cause to nearby persons or properties. Improper ways of pruning, in particular topping, can be detrimental to the health and structure of a tree and make a tree hazardous, hence it is essential to establish clearly defined objectives before commencement of any pruning

PROPER TREE PRUNING

✓ DO's

✗ DON'Ts

Objective

- Prune as necessary.

- Do not prune excessively or unnecessarily.

Common Types of Pruning

- Crown Cleaning



- Crown Thinning



- Crown Reduction



- Crown Raising



- Lion Tailing



- Topping



- Over Lifting



Where to prune?

- Edge of Branch Collar



- Stub remaining



- Flush Cut

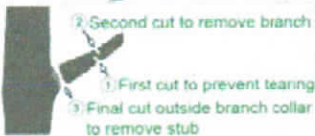


- Large Pruning Cut



How to make pruning cut?

- 3-point Cut



- Jagged Wounds



- Bark Tearing





No Topping

1. Starvation:

- After topping, a large portion of the tree crown is removed.
- The removal of green foliage which is the source of food production will temporarily cut off the food making ability.

2. Insects and Diseases:

- After topping, the large diameter and the terminal location of these cuts reduce the process of 'Compartmentalization Of Decay In Trees', i.e. the natural process of wound closure in trees.
- The tree becomes vulnerable to pests and diseases.

3. Weak Limbs:

- Extensive water sprouts will develop, giving rise to new limbs that are weakly attached.
- These weak attachments are prone to failure.

4. Ugliness:

- The tree form is heavily distorted. Even if the tree survives, it will never return to its original and natural form.
- The valuable landscape for the community is permanently lost.

5. Cost:

- The adverse impact on the tree may give rise to increased expenses in the long term, due to the replacement cost, the risk of liability from failure of weakened branches, and increased future maintenance.





Tree Topping: The Cost is Greater Than You Think

If you are topping a tree to make it safer, DON'T. It doesn't work!

Updated: December 9, 2024



Unlabeled topped trees lining a street.

Trees provide so much to our communities, our homes, and our lives. Healthy trees provide shade, reduce energy costs, prevent soil erosion, filter pollutants from the air and water, beautify our landscapes, and increase property values.

Some become concerned when trees grow large and worry that branches will break and fall, causing property damage or harm. They feel trees must be shortened or "topped" to make them safer. In reality, tree topping harms trees, shortens their lives, and creates dangerous or hazardous trees that will surely drop branches in the future. With proper care and maintenance, large trees can be safe in our landscapes.

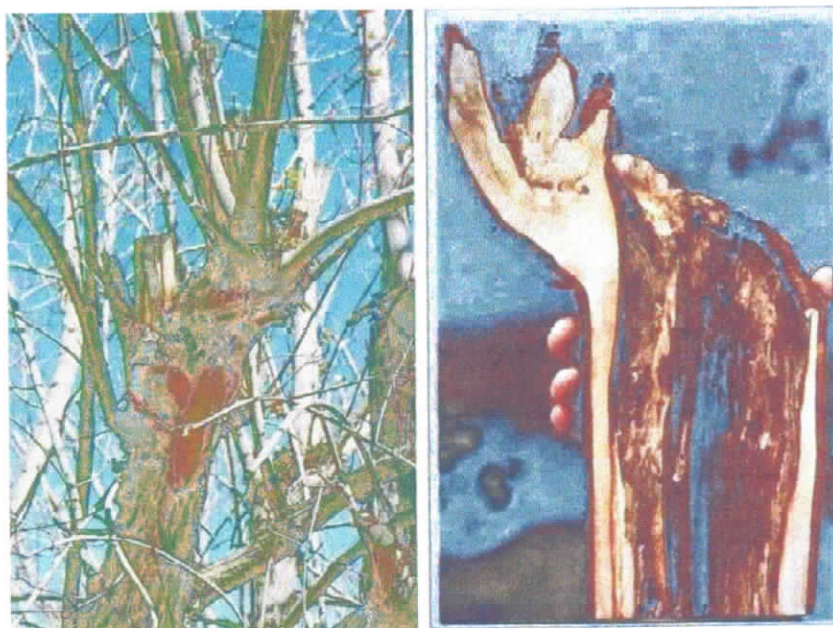
Tree topping is the removal of large amounts of leaves and branches from a tree's crown. In some cases, 80% of the leaves and branches are removed, leaving large stubs where branches were cut.



(<https://extension.psu.edu/media/wysiwyg/extensions/cata-og-prod.ct/3abc3f5197584e2dbd6ff7c5bcca8a251/a/topped-red-maple-in-yard-1.jpg>)

This red maple was topped and destroyed because it grew taller than the house. Below each heading or stub cut water sprouts grow quickly, while branched rot away from a cut and wound that does not close.

"You are topping a tree to make it smaller, but it doesn't work! After a tree is topped, it grows back really fast in an attempt to replace its missing canopy. Leaves are needed to manufacture food for the tree. Without new canopy, the tree will die. The new branches that sprout up below the cuts will continue to grow quickly until they reach the same size it was before it was topped. Sometimes topped trees will not grow back quickly; instead, they will slowly die in the coming years.



(<https://extension.psu.edu/media/wysiwyg/extensions/cata-og-prod.ct/504a6e9c48d944269e80f933a274cf5f/a/topping-sprouts-and-decay-1.jpg>)

Long, weakly attached water sprouts emerge from heading or topping cuts. Rot and decay easily spread down a branch that has been topped.

If you don't want a tree to get too big, then it is best to remove the large tree and replace it with a type of tree that doesn't grow too fast. You can't "stop" trees from growing fast by topping. If you do succeed, you have killed them.

A tree's leaves manufacture its food (photosynthesis). Repeated removal of a tree's food source literally starves the tree over time. When it is topped it must use stored (reserves) food to grow back new leaves and branches.



(https://extension.psu.edu/media/nyprny3/extension/cats/eg_press/4771/991906c944e99576069c60c0c89d4/dying_topped_maple_1.jpg)

This maple was topped and is dying because it lacks energy reserves to re-sprout.

Topped trees are ugly. They lose their natural majestic look once they are topped. The new growth of the upright branches looks like a broom to some. The natural form and appearance that took years for the tree to grow can be destroyed forever in a few hours by an uninformed tree worker or landscaper who "Tops."

Topped trees become hazardous. According to Dr. Alex Shigo, world renowned scientist and author of books on the care of trees, topping is the most serious injury you can inflict upon your tree.

Topping creates unsafe trees in three ways:

1. Topping or Heading Cuts opens the tree up to an invasion of rotting organisms. A tree can defend itself from rot when proper cuts are made in relationship with branch collars. It cannot stop the spread of decay when it is topped. A topped tree can quickly become unsafe, and begin to drop branches on homes, cars, and people. Rotted limbs or the entire tree may fall years after it was topped. Ironically, many people top their trees because they think it will make them safer.
2. The new, quick growing sprouts (or sprouts) are weakly attached and break easily in wind or snowstorms, even many years later when they are large and heavy. These upright sprouts do not have branch collars, the interweaving of trunk and branch wood, that embeds naturally growing branches, providing a very strong attachment.
3. The thick re-growth of new branches (sprouts) caused by topping makes the tree top heavy and more likely to catch the wind. This increases the chance of storm winds blowing branches out of the tree. A tree can be properly pruned (thinned) to allow wind to pass through the branches. Tree topping typically leads to future storm damage from the tree versus proper structural pruning when done early in a tree's life.



(<https://extension.psu.edu/media/wysiwyg/extensions/cats-og-product/e6d96efd71c9455b837fdd9704cf217c5/1/1-var-map-e-topped-1.jpg>)

After being topped, this large maple re-sprouted and regained its height in just a few short years, while decay set into the branches.

When you think about it, the cost of Tree Topping is greater than you think! Once it is topped, a tree must be topped every few years and eventually must be removed when it dies or the owner gives up. This will cost lots of money. Proper pruning actually improves the health and beauty of a tree, needs less maintenance, and costs less in the long run.

Think before You Top your tree. Get the facts. Becoming an educated consumer can save you money and save your tree from many misinformed tree workers and landscapers. Contact your local Penn State Extension office or D&NR Bureau of Forestry office for more information. Attend tree care workshops and learn about pruning and national tree care standards. Hire an ISA Certified Arborist (<https://www.treesaregood.org/findanarborist>) to care for your tree. They've received extensive training and passed a comprehensive exam on tree care practices.