

00 Introduction:

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Over the years of attending forestry and Walnut Council meetings, we have seen the enthusiasm of new growers, often followed years later by the disappointment of failure. The “enthusiasm / disappointment” pattern is not a stranger to ourselves. Does everybody need to learn by trial-and-error? We hope not – read on.

It is not difficult to grow black walnut trees, but a challenge to grow top-quality veneer black walnut trees. You can easily get advice on how to grow black walnut but to what quality standard? We will describe how to grow top-quality, veneer black walnut trees (on the first try) – not difficult, but a bit tricky!

At the left is a completely happy, successful, and valueless black walnut tree. It is a typical result of zero attention. Only squirrels or a stove could love this tree.

Like all living things, black walnut tree’s objective is reproduction. All aspects of tree growth are ultimately to support reproduction. The veneer market wants straight clear stems, but Mother Nature wants to spread out, collect sunlight and cover the ground with nuts. If we want to grow top-quality veneer, we have an unnatural challenge - to induce a tree species to grow outside of its comfort zone.

Black walnut trees are a shade-intolerant species. They grow healthy, wide, and branchy in an open setting. Under the shade of a forest canopy, they can’t compete in the low lighting. They fall behind, struggle, and usually do not survive. It seems that the open setting has too much sunlight and the closed setting doesn’t have enough. At intermediate light levels, the search for sunlight defines the general form of the growing tree.

A veneer buyer once said that he would only pay top dollar for a black walnut veneer log that came from deep in a forest. That's a very rare find - a walnut where it doesn't belong. We need to examine (and duplicate) how such a rare gem of a tree accidentally managed to survive and flourish in an environment contrary to its basic nature. Left to themselves, open-grown or edge-grown trees will have strong branching to collect sunlight from all open directions, even down to the ground level. These branches are great for the tree, but the branches' knots are show-stoppers for veneer use.



How about a well managed widely spaced monoculture plantation? Such managed black walnut plantations can be beautiful park-like settings. With lots of manual work and many years of annual growth to cover the early defects it is possible to produce veneer looking stems. But veneer buyers are not easily fooled. They have put in their 10,000 hours watching flitches come off a veneering machine, and now have x-ray vision like Superman. Walnut veneer logs are cooked, halved, and then sliced like cabbage. A beautiful plantation log with no outward defects will inevitably have a center of pruning defects that ruin many of the veneer slices, hence the discount – better than a sawlog, outwardly beautiful, but not “top-quality”.

Consider further the top-quality veneer tree growing deep in a forest where it didn't belong. It wasn't there before the forest or it would have become a “wolf tree”, wolfing up a quarter acre of canopy before the competition grew tall. The veneer gem didn't arise after the canopy was established, or it would not have survived being over topped and heavily shaded.

If not before and not after, likely the rare black walnut gem and its close-by neighbors grew up together. The lower part of the tree was intensely shaded from the very beginning. Lower shaded branches, contributing nothing to the tree's energy, were abandoned and shed while tiny. But directly above the tree was clear sky to force it upward for light. Duplicating this scenario is the essence of the veneer



growing process in this book. The remainder of this book will describe the details of how we and other growers have manipulated natural processes to achieve our #1 objective:

#1 Objective: Top-quality veneer stems.

As you can imagine, starting out with dense shade, by whatever method, is going to look like an impenetrable thicket, not a park. If you want a park, that's a grand idea, but this book is not for you.

So far we have shown a picture of a happy wolf tree and a picture of the devious park-like labor intensive beauties. Neither is what we want. We should not end this introduction without showing (at left) a tree that will meet our top-quality veneer expectations.

Most available black walnut growing advice focuses on early survival and canopy management, the beginning and the late phases of growth. For the phase between planting and canopy closure, you will be advised to prune like mad.

At the very heart of our top-quality veneer method is managing our crop tree's basal shading. The basal shading is to start from the beginning of growth and continue for the tree's life. To achieve our top-quality goal we need to eliminate the between pruning phase altogether, and the manual labor that goes with it. This document will not have a chapter about manual pruning, nor will this document have a chapter about mowing, or epicormic sprout removal, or a warning about tractor damage. These dreadful activities are unnecessary and nearly impossible in the environment we are proposing to create.

At the left is a flawless, small diameter black walnut stem. Not only will this tree fetch top-quality veneer price, it contains more veneer length – another economic multiplier. Notice that this is not a park. In the background can be seen

the white pines that grew up with the black walnut and provided (and are still providing) the needed dense basal shading. What are not visible in the picture are the tree's annual growth rings. This tree has finished its 14th leaf (I planted the seeds in 2004). It has had a diameter growth of about half an inch per year, just like an open grown tree, a "win win". So this brings us to adding our second objective.

#2 Objective: No growth-rate concession.

We want the bottom of the tree to think it is in the deep woods, like the veneer buyer's ideal setting. We want the top of the tree to think it is out by itself in an open meadow. We have found that there is a surprise benefit from these methods. There is way less labor involved. With the right starting conditions we might achieve "**do nothing forestry**", so it will cost us nothing to add a freebee third objective.

#3 Objective: Minimum intervention.

The method described in the pages that follow is exactly how I would do it if given another try, but alas, we have had our one try. We have run out of both acreage and time. We might buy some more acreage, but no amount of money can buy us more time. That's why it is important to succeed on your first try. Hopefully, others can learn from our many mistakes and our few happy successes.



A Black Walnut's second long life

"The best time to plant trees is 30 years ago."