

The 1935 Blennerhassett Black Walnut Plantation

West Virginia's Blennerhassett Island Historic State Park is an interesting place for both history buffs and black walnut enthusiasts. Before walnuts, a little history:



Harmon and Margaret Blennerhassett (*WV State Parks*)

Irish aristocrat, Harmon Blennerhassett, purchased the island in 1797 and built for his bride a mansion which became the showplace of the Ohio Valley frontier. Ex-vice president Aaron Burr was a guest in 1805. Together they planned a military expedition with the intent to conquer the Southwest. They were arrested and tried for treason before the U.S. Supreme Court – acquitted!



Artist conception on the Blennerhassett Mansion (*WVU Library*)

After Blennerhassett left for the Southwest, vandals ransacked the mansion and burned it. It only stood for 9 years. In the mid 1990s the local Friends of Blennerhassett rebuilt the mansion atop the original foundations



The rebuilt Blennerhassett mansion, which has already stood longer than the original. (*WV State Parks*)

Over the years the island has changed hands many times. In the late 1800s the island was a popular excursion park. That business was ruined by the emergence of the automobile. The island was purchased by Amos Gordon, a wealthy Louisiana oil executive, who set out a 2.5-acre black walnut planting in 1935. (It's easy for me to figure those tree's age.)

Most early black walnut plantations succumb to the gunstock demand during the two great wars, but this planting was (lucky for us) too late. Subsequent owners paid little attention to the walnuts. Essentially the plot has been unmanaged and will continue to be unmanaged by park policy.

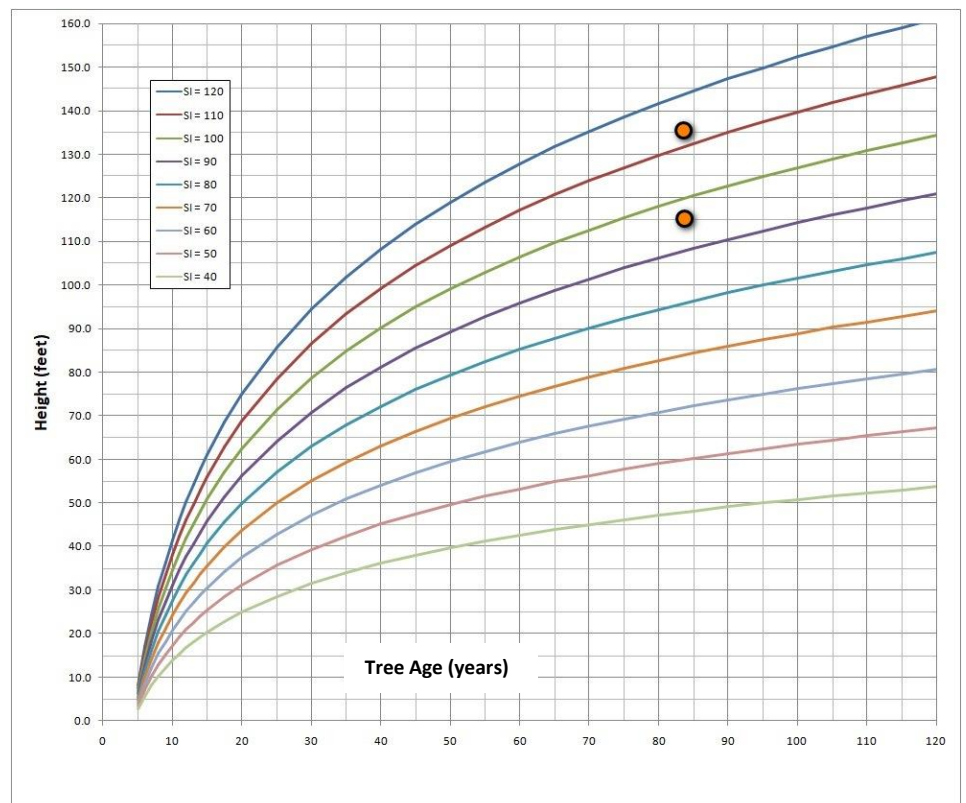
The trees were planted about 5 feet apart in rows 15 feet apart. We assume the plants came from older black walnuts which still shade the mansion's lawns.



An older black walnut and possible seed source, 50.4" DBH – for scale, notice our orange 5-gallon bucket (photo by author)

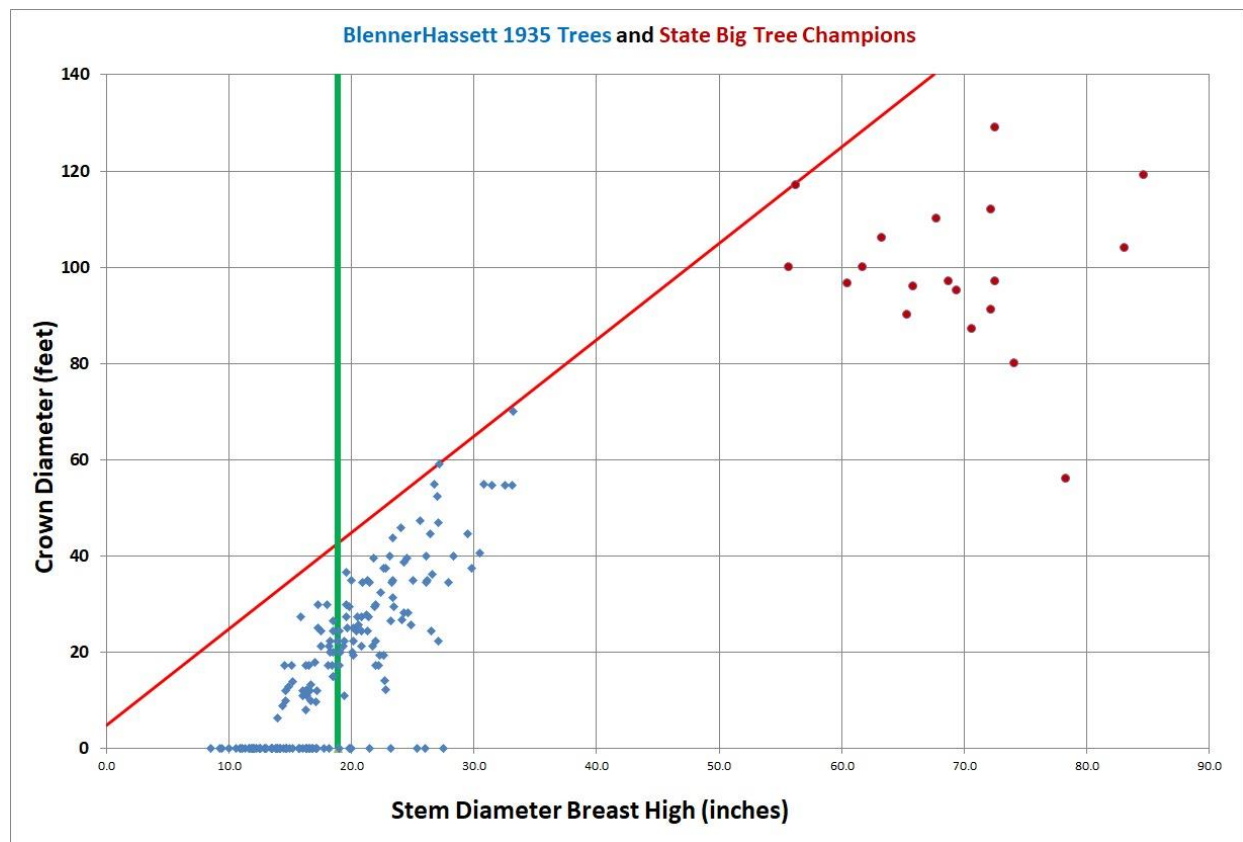
The island is an outstanding black walnut site. The soil is deep and identified as Huntington loam. At age 83, we measured tree heights of 115 and 135 feet. That makes the site-index (age 50) around 105 feet. For perspective, walnut plantings are discouraged for sites with a site-index below 70 feet.

Two height measurements shown on black walnut site-index growth curves





An open grown black walnut, with the Walnut Council experimental planting in the background
(photo by Keith Bibbee)



Canopy crown size vs. stem diameter for several state Big-Tree Champions (red) and the 1935 Blennerhassett trees (blue, measured after the 2018 growing season)

Black walnut trees growing out in the open tend to grow up with big crown, shown as the red line on the above graph. The crowns of open grown trees can't be much bigger than the red line, or they would break off in wind storms. The crowns of plantation trees become squeezed, which slows their growth. The main goal of timber management is to remove inferior trees and give the best trees canopy space for maximum growth (near the red line).

In an unmanaged planting, the stem diameters slowly get bigger, but the crown size is fixed by canopy competition. So, one would think the blue dots would move straight to the right – bigger diameters - fixed crown size. It is not that simple. In the unmanaged Blennerhassett planting most of the trees, winners and losers, are still there. The park only removes trees after they die and fall down. Half of the trees (losers) are no longer in the canopy. They fall

behind and continue to fall further behind in the competition for sunlight. They don't just die, they lose resistance to their many enemies. The vertical axis in the graph is crown diameter in the canopy. These loser trees are now below the canopy, so they have zero canopy space and are grouped along the bottom of the graph.

The winner trees are growing closer to the red ideal line. The very best tree is 31 inches DBH with a 70 foot diameter crown is growing right up the red line like an open grown tree. So, all the trees don't slow down together when things become over crowded. They split into winners and losers.

The Big Tree Champion black walnuts from several states are included on the graph (red dots) to show how large black walnuts can grow. The best Blennerhassett trees are headed that way, but may need another 80 years to get there.



The 1935 Blennerhassett black walnut planting with the author picking up nuts from the best trees
(photo by Todd Griffith)

So, all black walnut growers should make their once-in-a-lifetime “hajj” to see the 1935 black walnuts on Blennerhassett Island. Bring your grandchildren so they might catch your

enthusiasm. The Park runs a paddle wheeler from the Parkersburg, WV dock to the island from May through October.

[Blennerhassett Island Historical State Park - West Virginia State Parks](#)

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