use. The problem with most standard propagation — when dealing with native plants — is over-watering and poor drainage.

I believe that each of these unorthodox propagation methods I am using has a future, at least among patient and caring gardeners seeking to grow and establish the choicest forms of America's native azaleas, thereby preserving a bit of natural heritage on their homestead.

It seems more the rule than the exception for new native azalea and some rhododendron cultivars (mostly seedlings) to be named and then to never be propagated at all or to vanish after a year or two in a few catalogs. I wish there was an old living repository of past native azalea cultivars somewhere.

I hope to improve native azalea propagation techniques so that superior cultivars (not just seedlings) can continue in propagation by breeding and identifying a number of easy-to-propagate cultivars. I do not feel that tissue culture will always produce truly viable, long-lived plants. Another need is to create an informative list of current and important past cultivars; a list of source nurseries and breeders; and to write a book on all the 16 species, which will enable more gardeners to grow and enjoy native azalea cultivars hardy to their areas all across America.

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Black Walnut Trees' (Juglone) Effect on Azaleas

Phil Louer — Haymarket, Virginia

[The following is a reprint from the Northern Virginia Chapter "Azalea Clipper," Vol. 21(2), 1999, Ed.]

There were some communications recently on the Azaleas e-mail list concerning the effect of juglone (from black walnut trees) on plants, specifically, azaleas. It started with a message from Bob Stelloh, Treasurer of the Azalea Society of America.

Bob was researching the topic of allelopathy (poisons put out by plants, either to kill other plants or to make themselves unattractive to insects) for a friend who has a lot of black walnut trees (known to put out "juglone" that kills competitive plants). He noted a few azaleas listed that are purported not bothered by juglone: Rhododendron periclymenoides, and the Exbury hybrids 'Gibraltar' and 'Balzac.' For a list of other tolerant plants and more information on the topic, he referred to the website: http://www.anet-chi.com/~manytimes/page18.htm.

Barbara Bullock, Curator of Azaleas, US National Arboretum, Washington, DC, replied to the above message. She was reporting about the (10,000-plus or minus) 55-year-old Glenn Dales planted on the south slope of Mt. Hamilton in the National Arboretum. The black walnut is a native species on the hillside. Where there are old black walnut trees (about two), the Glenn Dale azaleas have died out. Where there are black walnut trees that have seeded in, and have not yet fruited, the azaleas still thrive. They [Arboretum staff] try to remove the saplings as soon as they see them. There is an ongoing tree removal program, but the dangerous trees get the higher priority for removal. The black walnuts [at the Arboretum] are not dangerous to their visitors. So...as far as Barbara can see, Glenn Dales are NOT tolerant of juglone.

We (the Louers) have had considerable experience with the black walnut trees and the juglone effect on azaleas. When we bought our five acres 20 years ago, we had about 12-14 black walnut trees on the property. We innocently planted many azaleas near these trees, many varieties including the Glenn Dale, Robin Hill, Satsuki, Gable, Girard, Kurume, and other hybrids.

All of these plants within a radius of about 40 feet from each tree died over the years—a total of more than 200 plants. One particular plant, 'Big Joe' (Gable), lived longer than most, but not well. We moved it to a better location, and it has survived well. As far as other flowers are concerned, we did find that iris and gladiolus would grow all right under these trees.

We have since reclaimed the areas by, first, removing every black walnut tree. About two to three years after each tree was cut down, we again planted azaleas. We dug the holes larger than the plant root ball, removed the dirt completely, refilled the hole with fresh dirt and compost, and then planted the azaleas. Our success rate with this restoration process is near 100% after five to 15 years. We have not lost any plants that we can trace to the juglone effect in the restoration area.

[For the complete discussion on this topic on the Azalea e-mail list, subscribe to azaleas@azaleas.org, then use the archives feature described in the sidebar on page 38 to review all the e-mails contributed, Ed.]

Philip Louer has been a member of the Society since 1979. Phil and his wife Frances have been active in the Northern Virginia Chapter. They opened their five-acre garden near Haymarket, Virginia, for one of the tours offered during the Society's annual convention in 1998. Their woodland garden collection contains over 2,000 varieties of azaleas intermixed with many interesting companion plants. Phil, for the past several years, has been editor of the chapter newsletter, "The Azalea Clipper."