

The Republican

Hybrid trees the answer to chestnut blight

By: Lee Reich

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Call me a chauvinist, but I'll still state that the American chestnut is the finest of all chestnuts. At least that's been the concensus; I've never tasted an American chestnut. This tree towered majestically in America's virgin forests and yielded a wood that was used in musical instruments, molding, fenceposts, barrel staves, even telephone poles. The nuts were said to be deliciously sweet and flavorful.

Unfortunately, such majestic chestnut trees are very rare these days. Chestnut blight was accidentally introduced into this country about 100 years ago and spread 25 to 50 miles per year from the Bronx Zoo, where it was first noted, to leave 7 million acres of Appalachian forests with dead or dying chestnut trees within 50 years.

The American chestnut is not gone, though. The disease kills only the above ground parts of the trees, so blighted trees continue to send up new sprouts from the roots. These sprouts, which succumb to blight only as they age, provide a constant source of food to sustain the chestnut blight organism.

There's hope for chestnuts. Looking across the Pacific to Asia, home of the blight organism, we find resistance among Japanese and Chinese chestnut species. Neither matches the American chestnut in tree or nut quality, but could contribute blight resistance to hybrids. Most chestnuts you see in food markets come from across the Atlantic Ocean. They are European chestnuts, almost as susceptible to the blight as is our native species and with nuts that vary in quality, from astringent, to insipid, to moderately sweet.

The various chestnut species have been hybridized to produce trees with almost the grandeur of the American chestnut, yet resistance to chestnut blight. Some of the best - which I have planted - include Colossal, Eaton and Basalt.

Yet some nostalgic folks still pine for the purebred, unadulterated American chestnut. There's hope here also. The chestnut blight fungus is itself susceptible to a disease, a virus. Natural spread of the virus has been effective in arresting the spread of blight in Europe. Here in America, though, we are dealing with a different chestnut species, a different climate, and different strains of blight and blight viruses. Thus far, this technique has met with partial success here.

Other research has shown that blight lesions on trees can be treated with "natural medication." One scientist found that if the soil at the base of a blight-infected tree is

made into a poultice and held against the lesion with plastic wrap and tape, the lesion heals. Remember that the chestnut roots are not attacked by the blight fungus. The roots may be protected from infection by certain beneficial soil microorganisms, and these same organisms have beneficial effect when applied to infected bark.

The chestnut might return as a backyard tree, as a stately tree to line farm driveways or streets, and perhaps as a forest tree through the combined efforts of plant breeders, plant pathologists, and the observant eyes of everyday people. Very likely, some purebred American chestnut trees exist with innate resistance to the blight; they are waiting to be found, then multiplied and used in breeding. Learn more of the latest efforts through the American Chestnut Foundation (www.acf.org).

For the present, I recommend planting one of the blight-resistant hybrids - actually, at least two different ones for cross-pollination. Given reasonably good soil, such trees grow rapidly and bear their first crops within a couple of years or so of planting. This year's crop is just about all gathered and ready for roasting, and will taste great even if not quite on a par with a purebred American chestnut.

Any gardening questions? E-mail them to me at garden@leereich.com and I'll try answering them directly or in this column.