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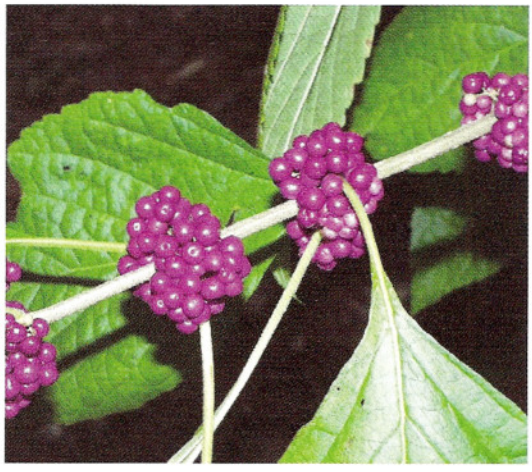
44. © Sulfuric acid scarification of *Callicarpa americana* L. (Lamiaceae) seeds improves germination. Contreras, R. N. and Ruter, J. M. Native Plants Journal 10(3):283-286. 2009.

Sulfuric acid scarification of *Callicarpa americana* L. (Lamiaceae) seeds improves germination



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ABSTRACT

An experiment was conducted to determine if sulfuric acid scarification improved seed germination of *Callicarpa americana* L. (Lamiaceae). Treatments included a control (0 min), 15-min, and 30-min soaks in concentrated (18N) sulfuric acid followed by a 15-min rinse in tap water. The 30-min treatment had the earliest germination with seedlings appearing 18 d after treatment (DAT). The 15-min treatment had seedlings emerge at 26 DAT while seedlings in the control did not begin to emerge until 60 DAT. After 60 d, seeds from the acid treatments had approximately 50% germination while the control had less than 10%. At the conclusion of the study, the control, 15-min, and 30-min acid treatments germinated at 8.9%, 57.8%, and 48.9%, respectively. The results of this study show the benefit of sulfuric acid scarification in the germination of *Callicarpa americana*. Recommendations should be amended to include a 15- to 30-min soak in concentrated sulfuric acid to promote rapid and more uniform germination for this species.

Contreras RN, Ruter JM. 2009. Sulfuric acid scarification of *Callicarpa americana* L. (Lamiaceae) seeds improves germination. Native Plants Journal 10(3):283–286

KEY WORDS
beautyberry, propagation, sexual propagation

NOMENCLATURE
Cantino (1992)

Figure 1. Mature fruit of *Callicarpa americana* in early fall. Photo by John M Ruter

Callicarpa L. (Lamiaceae) (commonly called beautyberry) is a genus of approximately 150 species of shrubs and trees distributed throughout the world including warm-temperate and tropical America, Southeast Asia, Pacific Islands, and Australia (Harden 1992). Beautyberries are grown primarily for their handsome fruit, typically purple, which is produced in late summer to fall (Figure 1). *Callicarpa americana* L. is an attractive native shrub that is underutilized in the nursery and landscape industries. Selection, the sole means of improvement to date, has been primarily for pink or white-fruiting forms and for increased fruit production. To increase available diversity, a program has been initiated at the University of Georgia, Tifton Campus, with the goal of developing novel forms of beautyberry through interspecific hybridization and investigating inheritance of ornamental characters to assist in the breeding process. During this program, seeds were germinated after 60-d cold, moist stratification. Subsequent germination was observed to be slow, sporadic, and at low percentages.