



Forest Service
U.S. DEPARTMENT OF AGRICULTURE

NOW AVAILABLE

AN INTRODUCTION TO THE AMERICAN CHESTNUT

A STATE-OF-THE-ART ONLINE COURSE

Learn basic background information on the American chestnut: taxonomy, silvics, historic importance, ecological functions & its demise

Materials include interactive audio & video, glossary, links to free resources, and more

FIND IT HERE:

<https://doi.org/10.2737/SRS-GTR-271>

Clark, Stacy L. 2021. An introduction to the American chestnut (*Castanea dentata*). Gen. Tech. Rep. SRS-271. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. [Online course]. <https://doi.org/10.2737/SRS-GTR-271>.

- Anagnostakis, S.L.; Clark, S.; McNab, H. 2009. Preliminary report on the segregation of resistance in chestnuts to infestation by the Oriental Chestnut Gall Wasp. *Acta Horticulturae*. 815: 33-35. <https://doi.org/10.17660/ActaHortic.2009.815.3>.
- Anagnostakis, S.L. 2012. Chestnut breeding in the United States for disease and insect resistance. *Plant Disease*. 96(10): 1392-1403. <https://doi.org/10.1094/PDIS-04-12-0350-FE>.
- Ashe, W.W. 1911. Chestnut in Tennessee. *Tennessee State Geological Survey Bulletin*, O-B, 35 p.
- Bailey, R.G.; Avers, P.E.; King, T.; McNab, W.H., eds. 1994. Ecoregions and subregions of the United States (map). Washington, DC: U.S. Geological Survey. Scale 1: 7,500,000; colored.
- Balci, Y.; Balci, S.; Eggers, W.L. [and others]. 2007. *Phytophthora* spp. associated with forest soils in Eastern and North- Central U.S. Oak Ecosystems. *Plant Disease*. 91(6): 705-710. <https://doi.org/10.1094/PDIS-91-6-0705>.
- Barnhill-Dilling, S.; Delborne, J.A. 2019. The genetically engineered American chestnut tree as opportunity for reciprocal restoration in Haudenosaunee communities. *Biological Conservation*. 232: 1-7. <https://doi.org/10.1016/j.biocon.2019.01.018>.
- Bauerle, W.L.; Wang, G.G.; Bowden, J.D.; Hong, C.M. 2006. An analysis of ecophysiological responses to drought in American chestnut. *Annals of Forest Science*. 63: 833-842. <https://doi.org/10.1051/forest:2006066>
- Blythe, R.M.; Lichti, N.I.; Smyser, T.J.; Swihart, R.K. 2015. Selection, caching, and consumption of hardwood seeds by forest rodents: implications for restoration of American chestnut. *Restoration Ecology*. 23(4): 473-481. <https://doi.org/10.1111/rec.12204>.
- Braun, E.L. 1950. *Deciduous forests of eastern North America*. Blakiston, Philadelphia.
- Buttrick, P.L. 1915. Commercial uses of chestnut. *American Forestry*. 21: 960-967.
- Buttrick, P.L. 1925. Chestnut in North Carolina. In: *Chestnut and the Chestnut Blight in North Carolina*. North Carolina Geological and Economic Survey Paper. 56: 6-10.
- Case, A.E.; Mayfield, A.E.; Clark, S.L. [and others]. 2016. Abundance and frequency of the Asiatic oak weevil (Coleoptera: Curculionidae) and defoliation on American, Chinese, and hybrid chestnut (*Castanea*). *Journal of Insect Science* 16(1): 1-8. <https://doi.org/10.1093/jisesa/iew012>.
- Clark, S.L.; Schlarbaum, S.E.; Saxton, A.M.; Hebard, F.V. 2012. Nursery performance of American and Chinese chestnuts and backcross generations in commercial tree nurseries. *Forestry: An International Journal of Forest Research* 85: 589-600. <https://doi.org/10.1093/forestry/cps068>.
- Clark, Stacy L.; Schweitzer, Callie J.; Saunders, Mike R.; Belair, Ethan P.; Torreano, Scott J.; Schlarbaum, Scott E. 2014. The American chestnut and fire: 6-year research results. Waldrop, Thomas A., ed. 2014. In: *Proceedings, Wildland fire in the Appalachians: Discussions among managers and scientists*. Gen. Tech. Rep. SRS-199. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station: 60-70. <https://doi.org/10.2737/SRS-GTR-199>.
- Clark, S.L. and others. 2019. Could restoration of the American chestnut remodel our wildlife landscape? *The Wildlife Professional* 13(4): 52-56. Available at: <https://www.srs.fs.usda.gov/pubs/59285>. [Date accessed: 16 August 2022].
- Collins, R.J.; Copenheaver, C.A.; Kester, M.E. [and others]. 2017. American chestnut: re-examining the historical attributes of a lost tree. *Journal of Forestry*. 116(1): 68-75. <https://doi.org/10.5849/JOF-2016-014>.

- Crandall, and others. 1945. Root disease of *Castanea* species and some coniferous and broadleaf nursery stocks caused by *Phytophthora cinnomomi*. *Phytopathology*. 35: 162-180.
- Dalglish, H.; Nelson, C.D; Scrivani, J.A.; Jacobs, D.F. 2016. Consequences of shifts in abundance and distribution of American chestnut for restoration of a foundation forest tree. *Forests* 7(1). 4 p. <https://doi.org/10.3390/f7010004>.
- Dane, F.; Lang, P.; Huang, H.; Fu, Y. 2003. Intercontinental genetic divergence of *Castanea* species in eastern Asia and eastern North America. *Heredity*. 91: 314-321. <https://doi.org/10.1038/sj.hdy.6800300>.
- Delcourt, P.A. and others. 1998. Prehistoric human use of fire, the eastern Agricultural complex and Appalachian oak-chestnut forests: Paleoecology of Cliff Palace Pond, Kentucky. *American Antiquity*. 63: 263-278. <https://doi.org/10.2307/2694697>.
- Diamond, S.J.; Giles, R.H.; Kirkpatrick, R.L; Griffin, G.J. 2000. Hard mast production before and after the chestnut blight. *Southern Journal of Applied Forestry*. 24(4): 196-201. <https://doi.org/10.1093/sjaf/24.4.196>.
- Faison, E.; Foster, D.R. 2014. Did American chestnut really dominate the eastern forest? *Arnoldia*. 72(2): 18-32. <http://nrs.harvard.edu/urn-3:HUL.InstRepos:23520603>.
- Frothingham, E.H. 1912. Second growth hardwoods in Connecticut. *Forest Service Bulletin*. 96: 70 p. <https://doi.org/10.5962/bhl.title.66435>.
- Frothingham, E.H. 1924. Some silvicultural aspects of the chestnut blight situation. *Journal of Forestry*. 22: 861-872.
- Frothingham, E.H. [and others]. 1926. A forest type classification for the southern Appalachian Mountains and adjacent plateau and coastal region. *Journal of Forestry*. 24: 673-684. <https://doi.org/10.1093/jof/24.6.673>.
- Graves, H.S. 1905. Notes on the rate of growth of red cedar, red oak and chestnut. *Forest Quarterly*. 3: 349-353.
- Griffin, G.J. 2000. Blight Control and Restoration of the American Chestnut. *Journal of Forestry*. 98(2): 22-27.
- Griffin, G.J. and Elkins, J.R. 1986. Chestnut blight. In: Chestnut blight, other Endothia diseases, and the Genus Endothia. St. Paul, Minnesota: The American Phytopathological Society: 1-26.
- Hawley, R.C. and Hawes, A.F. 1925. *Forestry in New England: manual of forestry for the northeastern United States*. J. Wiley & Sons.
- Hough, Franklin B. 1878. Report upon forestry. Washington, DC: Government Printing Office, 1878. 650 p.
- Illick, J.S. 1921. Replacement of the chestnut. *Journal of Forestry*. 19(2): 105-114.
- Jacobs, D.F.; Selig, M.F.; Severeid, L.R. 2009. Aboveground carbon biomass of plantation-grown American chestnut (*Castanea dentata*) in absence of blight. *Forest Ecology and Management*. 258: 288-294. <https://doi.org/10.1016/j.foreco.2009.04.014>.
- Joesting, H.M.; McCarthy, B.C.; Brown, K.J. 2009. Determining the shade tolerance of American chestnut using morphological and physiological leaf parameters. *Forest Ecology and Management*. 257: 280-286. <https://doi.org/10.1016/j.foreco.2008.09.009>.
- Kane, J.M.; Varner, J.M.; Saunders, M.R. 2019. Resurrecting the lost flames of American chestnut. *Ecosystems*. 22(5): 995-1006. <https://doi.org/10.1007/s10021-018-0318-1>.
- Keever, C. 1953. Present composition of some stands of the former oak-chestnut forest in the southern Blue Ridge Mountains. *Ecology*. 34(1): 44-54. <https://doi.org/10.2307/1930307>.
- Korstian, C.F.; Stickel, P.W. 1927. The natural replacement of blight-killed chestnut in the hardwood forests of the Northeast. *Journal of Agricultural Research*. 34(7): 631-648. Available at: <https://naldc.nal.usda.gov/download/IND43967310/PDF>. [Date accessed: 16 August 2022].
- Lutts, R.H. 2004. Like manna from God: the American chestnut trade in southwestern Virginia. *Environmental History*. 9(3): 497-525. <https://doi.org/10.2307/3985770>.

- Mackey, H.E., Jr.; Sivec, N. 1973. The present composition of a former oak-chestnut forest in the Allegheny Mountains of western Pennsylvania. *Ecology*. 54(4): 915-919. <https://doi.org/10.2307/1935689>.
- Mattoon, W.R. 1909. The origin and early development of chestnut sprouts. *Forest Quarterly*. 7: 34-47.
- Minser, W.G. and others. 1995. Feeding response of wild turkeys to chestnuts and other hard mast. 1995 Proc. Annu. Conf. Southeast. Assoc. Fish and Wildl. Agencies. 49: 488-497.
- Moerman, D.E. 1986. Medicinal plants of native America (Vol. 2). University of Michigan Museum. <https://doi.org/10.3998/mpub.11394575>.
- Novak, B.J.; Estes, J.A.; Shaw, H.E. [and others]. 2018. Experimental investigation of the dietary ecology of the extinct passenger pigeon, *Ectopistes migratorius*. *Frontiers in Ecology and Evolution*. 6: 20 p. <https://doi.org/10.3389/fevo.2018.00020>.
- Oliver, J.B.; Mannion, C.M. 2001. Ambrosia beetle (Coleoptera:Scolytidae) species attacking chestnut and captured in ethanol-baited traps in middle Tennessee. *Environmental Entomology*. 30(5): 909-918. <https://doi.org/10.1603/0046-225X-30.5.909>.
- Opler, P.A. 1979. Insects of American Chestnut: Possible Importance and Conservation Concern. In: *Proceedings of the American Chestnut Symposium*: 83-85.
- Paillet, F.L. 1982. The ecological significance of American chestnut (*Castanea dentata* (Marsh.) Borkh.) in the Holocene forests of Connecticut. *Bulletin of the Torrey Botanical Club*. 109: 457-475. <https://doi.org/10.2307/2996487>.
- Paillet, F.L. 2002. Chestnut: history and ecology of a transformed species. *Journal of Biogeography*. 29: 1517-1530. <https://doi.org/10.1046/j.1365-2699.2002.00767.x>.
- Paillet, F.L.; Rutter, P.A. 1989. Replacement of native oak and hickory tree species by the introduced American chestnut (*Castanea dentata*) in southwestern Wisconsin. *Canadian Journal of Botany*. 67: 3457-3469. <https://doi.org/10.1139/b89-423>.
- Pinchot, C.C.; Schlarbaum, S.E.; Saxton, A.M. [and others]. 2011. Incidence of *Craesus castaneae* (Hymenoptera: Tenthredinidae) of chestnut seedlings planted in the Daniel Boone National Forest, Kentucky. *Journal of Entomological Sciences*. 46(3): 265-268. <https://doi.org/10.18474/0749-8004-46.3.265>.
- Rhoades, C.C. 2007. The influence of American chestnut (*Castanea dentata*) on nitrogen availability, organic matter and chemistry of silty and sandy loams soils. *Pedobiologia*. 50: 553-562. <https://doi.org/10.1016/j.pedobi.2006.10.003>.
- Rumbold, C. 1911. A new record of a chestnut-tree disease in Mississippi. *Science*. 34(887): 917. <https://doi.org/10.1126/science.34.887.917.b>.
- Saucier, J.R. 1973. American chestnut - an American wood. U.S. Department of Agriculture Forest Service. FS-230: 3-6.
- Tulowiecki, S.J.; Larsen, C.P.S. 2015. Native American impact on past forest composition inferred from species distribution models, Chautauqua County, New York. *Ecological Monographs*. 85(4): 557-581. <https://doi.org/10.1890/14-2259.1>.
- Wang, G.G.; Bauerle, W.L.; Mudder, B.T. 2006. Effects of light acclimation on the photosynthesis, growth, and biomass allocation in American chestnut (*Castanea dentata*) seedlings. *Forest Ecology and Management*. 226: 173-180. <https://doi.org/10.1016/j.foreco.2005.12.063>.
- Wang, G.G. and others 2013. The Silvics of *Castanea dentata* (Marsh.) Borkh., American Chestnut, Fagaceae (Beech Family). Gen. Tech. Rep. SRS-173. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 18 p. <https://doi.org/10.2737/SRS-GTR-173>.
- Westbrook, J.W.; James, J.B.; Sisco, P.H. [and others]. 2019. Resistance to *Phytophthora cinnamomi* in American chestnut (*Castanea dentata*) backcross populations that descended from two Chinese chestnut (*Castanea mollissima*) sources of resistance. *Plant Disease*. 103: 1631-1634. <https://doi.org/10.1094/PDIS-11-18-1976-RE>.

- Woods, F.W.; Shank, R.E. 1959. Natural replacement of chestnut by other species in the Great Smoky Mountains National Park. *Ecology*. 40(3): 349-361.
<https://doi.org/10.2307/1929751>.
- Ziegler, E.A. 1920. Problems arising from the loss of our chestnut. *Forest Leaves*. 17: 152-155.
- Zon, R. 1904. Chestnut in southern Maryland: U.S. Department of Agriculture, Bureau of Forestry.