TRAINING MANUAL
FOR AGROFORESTRY PRACTICES

2025 Edition













Center for Agroforestry
University of Missouri

Acknowledgments

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Training Manual for Applied Agroforestry Practices
2025 Edition

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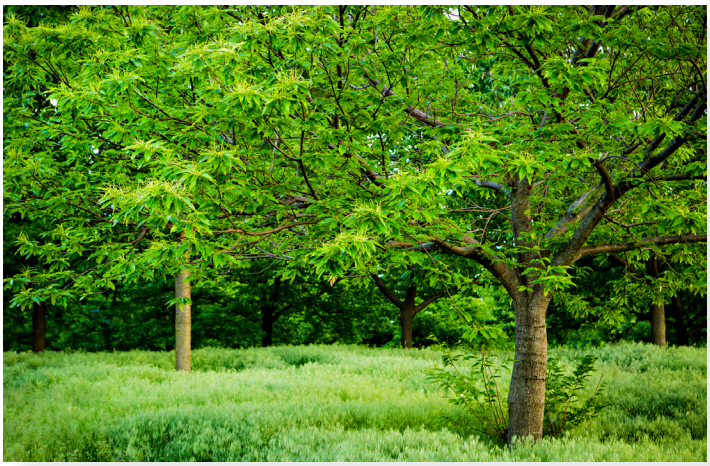
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User's Guide to the Training Manual

Farmers, land stewards, and others drawing sustenance from the land often strive to produce goods through methods that are economical, conservation-minded and socially acceptable. Agroforestry practices are unique and multifunctional. Through proper application, these practices can meet each objective of economic viability, conservation of resources, and social acceptance.

Agroforestry practices are designed to fit specific niches within the farm to meet diverse objectives. When properly planned and managed, agroforestry practices can achieve a balance between diverse, and often seemingly opposed, goals. This manual will examine six agroforestry practices and their various applications. Additionally, this manual is designed to assist in the decision-making process so that, when established and managed, the given agroforestry practice is most effective at achieving the desired objectives.





About this manual

This training manual is designed to provide easy-to-use information about agroforestry. The intended audience includes forest and agricultural land stewards and producers, natural resource professionals, and other educators; yet, anyone interested in establishing or managing trees for multiple functions on the landscape can use the agroforestry guidelines to assist in achieving success. This updated edition of the training manual is not intended to function as a comprehensive source of information on agroforestry. Agroforestry is both an art and a science. Therefore, do not use this training manual as your only source of information. Rather, it is designed as a tool to assist in the decisionmaking process. There are countless ways for trees to meet conservation, economic and societal goals, and we learn more each day about effective designs that better ensure agroforestry systems meet one or more of these specific objectives.

How the manual is organized

This manual is divided into specific chapters describing agroforestry practices and management. Please note that Chapter 2 is intended to establish a path for applying your knowledge of agroforestry in a step-by-step planning process, and it is best utilized when frequently referenced while reading other chapters in this training manual. The appendices contain information and crop sheets for selecting the appropriate trees, shrubs, grasses, and forbs for your agroforestry practices. You may pull out chapters and appendices and use them independently as needed.

Let's begin

From specific land management practices designed to conserve limited resources to the marketing of specialty, non-commodity products, the information in this manual can improve the likelihood of your success. We hope it is both a useful tool and a source of inspiration for additional management practices that utilize trees or shrubs on the farm for multiple benefits. Land management practices that integrate trees and shrubs with agriculture can provide benefits to the farm and the surrounding landscape for generations. Our objective in sharing this manual is to help land stewards and their communities achieve long-term satisfaction from working harmoniously with the soil, water, air, forests and wildlife of this Earth.

About The Center for Agroforestry

Established in 1998, the Center for Agroforestry seeks to understand the science and practice of agroforestry, the integration of trees and shrubs with crops or livestock on farms of all scales. Through research, outreach, and educational programs, the Center has developed an enduring reputation as a critical source of information on agroforestry and perennial specialty crops for Missouri, the Midwest region, and beyond. The Center's intergenerational insights on the science behind agroforestry and our collaborative work to translate scientific advancements into accessible training programs for diverse audiences has resulted in new profitable perennial crop industries, such as chestnut and elderberry, for farms throughout the region.

Agroforestry practices help farmers and land stewards diversify harvests, markets and farm income; improve soil and water quality; and reduce erosion, non-point source pollution and flood damage. The integrated practices of agroforestry enhance land and aquatic habitats for fish and wildlife and improve biodiversity while sustaining land resources for generations to come. For nearly three decades, our team of scientists and researchers have explored the ecological, economic, and social dimensions of agroforestry with special focus on tree and shrub crop breeding, silvopasture, enterprise budgeting, horticultural best management practices, ecosystem services, nutrition, and human health.

Our training programs translate academic and scientific findings to diverse groups of stakeholders in agroforestry, including farmers and ranchers, land stewards, natural resource professionals, policymakers, and the general public. Our offerings span multiple formats, topics, and experience-levels, including webinars, YouTube tutorials and presentations, field workshops, symposia, and more. The Agroforestry Academy is our signature training program offered annually in late spring as a 5-week online course paired with an optional 3-day field experience on Mizzou campus and surrounding farms. To date, the Academy has trained more than 350 farmers, educators, and natural resource professionals since it's inception in 2013.

The Center for Agroforestry hosts the only agroforestry graduate degree program in the United States. Our online master's program was developed to provide working professionals with advanced study and experience in agroforestry and related fields not readily available at other colleges and universities in the U.S. or abroad. Our agroforestry graduate certificate is also offered online. The campus-based M.S. thesis option is designed for individuals who wish to gain the skills required to conduct original research resulting in refereed publications. We also support doctoral students pursuing a Ph.D. in Natural Resources with emphasis in agroforestry.

This work is made possible by significant collaborative funding from the USDA Agricultural Research Service Dale Bumpers Small Farms Research Center in Booneville, Arkansas. The Center is housed in the University of Missouri School of Natural Resources within the larger College of Agriculture, Food, and Natural Resources (CAFNR) in Columbia, Mo. More information on our offerings can be found at centerforagroforestry.org.



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