

# AGROFORESTRY-APPROPRIATE LAND & CAPITAL

Multi-party cooperation among landowners, investors, organizations, and farmers in the Midwest USA

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## ABSTRACT

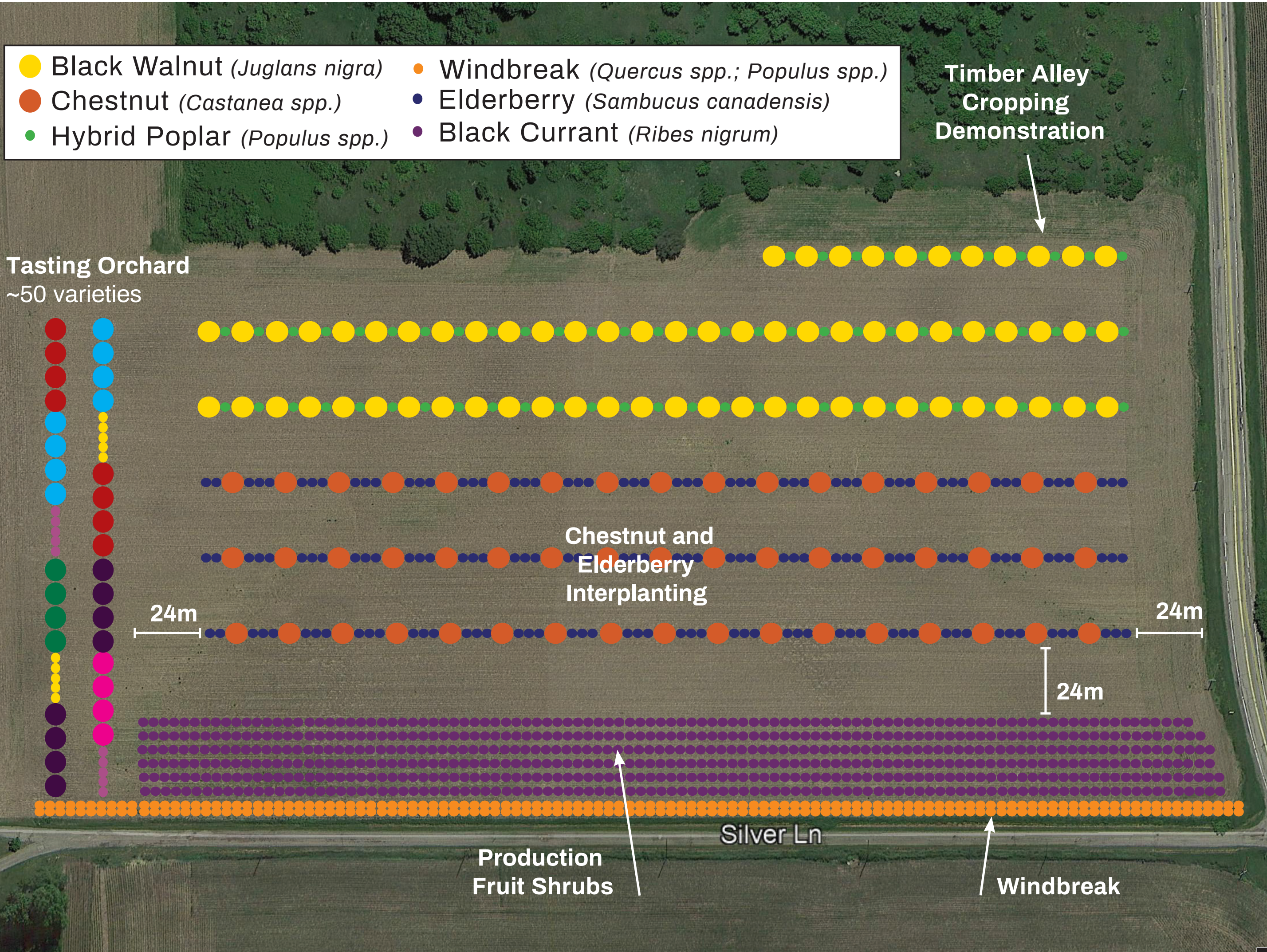
Appropriate land and capital access are critical for wider adoption of agroforestry. In the U.S. 39% of farmed land is non-owner operated. One-year cash rent leases designed for annual crops most commonly govern use of this land. Long-term secure agroforestry arrangements could better meet many landowner objectives and public interests, e.g. improved property values and ecosystem functions. Conventional agricultural financing, too, may suit annual systems, but agroforestry-appropriate capital accords conditions as such. Access to land and capital are common barriers for beginning farmers—key potential agroforestry adopters. Bringing together multiple parties—farmers, landowners, and sources of capital—in suitable land and business arrangements represents a potential strategy for stimulating adoption of agroforestry. In this paper, we (1) outline the principles of agroforestry-appropriate land and capital (2) highlight exemplary cases of agroforestry on non-owner operated land via multi-party arrangements, including with institutional landowners, (3) develop best practices and potential pitfalls for successful multi-party agroforestry arrangements, (4) assess potential for expanding use of multi-party agroforestry arrangements, and strategies for how it might be realized by collaboration among academics, policy makers, government agencies, civil society organizations, businesses, institutional and individual landowners, and agroforestry practitioners.

## EXAMPLE CASE STUDY

Silverwood Park in Wisconsin includes public trails and fields leased for arable crops. To demonstrate agroforestry there, the Savanna Institute, the citizen group that manages the park, an arable crop farmer, and the municipal landowner established a 7ha silvoarable, windbreak, and diverse orchard demonstration.

ROLES & RESPONSIBILITIES	FRIENDS OF SILVERWOOD PARK	SAVANNA INSTITUTE	ROW CROP FARMER	DANE COUNTY PARK
Land tenure	Long-term lessee	Long-term sub-lessee	Sub-lessee	Landowner
Fundraising	Some responsibility for fundraising	Main responsibility for fundraising	May contribute cash or labor to costs	Capital expenses
Planning/design/stakeholder engagement	Equal role	Equal role	Equal role	None
Installation	Contribute labor	Lead responsibility	Secondary	None
Ongoing management	Contribute labor	Oversee	Contribute labor	None
Ownership of products	Shared based on initial agreement	Shared based on initial agreement	Shared based on initial agreement	None
Research	Assist as appropriate	Lead responsibility	Assist as appropriate	None
Public programs	Shared responsibility	Shared responsibility	Assist as appropriate	None

FIGURE 1  
Demonstration Field Design, Silverwood Park, Wisconsin USA



## BACKGROUND

Constraints to wider application of agroforestry for established farmers include: time, knowledge, perceptions that trees do not belong in farming systems, sunk costs in existing enterprises, advanced older age, new crops with long-term returns on investment. Beginning farmers are more inclined toward agroforestry, but access to land and capital to purchase land is often a major barrier, and thus leasing can be a more accessible option.

Leasing is common (39 % of all farmland; 54% of all cropland in USA), but most agriculture lease terms are one-year cash rent. Investments in agroforestry systems—trees, soil health, infrastructure such as fencing, etc.—are not reasonable because the risk of lease non-renewal threatens sufficient return on investment. Given these factors, tenure models outside of land ownership and short-term leases are needed to facilitate agroforestry.

## OBJECTIVES & METHODS

The primary objective of this study was to describe examples of farmers practicing agroforestry on land they do not own in the Midwest USA. We conducted interviews with these farmers and landowners to learn about their tenure arrangements. In some cases, three or more parties played a role, including investors, another farmer operating an integrated enterprise, and/or a community stakeholder group. Given the diversity of entities and forms of cooperation, we broadly term these arrangements multi-party agroforestry (MA).

## RESULTS

TABLE 1 Select cases of multi-party agroforestry and farm characteristics in the Midwest USA.			
FARM	PRIMARY PRODUCTS	HECTARES	FARMING ENTITY
Feral Farm	Chestnut, small fruits, hay	4	Sole proprietorship
Vulcan Farm	Perennial polycultures, nursery	4	LLC
Saturn Farm	Chestnut, hazelnut, currant	8	LLC
Humble Hands Harvest	Livestock, vegetables, nuts	9	Worker-owned cooperative
Green Pastures Farm	Livestock, timber, mushrooms	647	LLC
Aspen Farm	Livestock	45	LLC
Silverwood County Park	Chestnuts, timber, small grains, fruit	7	Non-profit organization
Main Street Project Research Farm	Poultry, hazelnuts, elderberry	40	Non-profit organization
Farley Center Farm Incubator	Vegetables, perennial polyculture	17	Beginning farmers
Community Groundworks	Vegetables, small fruits, nuts	6	Community gardeners
Brix Cider	Apple cider	20	LLC

TABLE 2 Key attributes of multi-party agroforestry for select cases in the Midwest USA.					
FARM	PARTIES	LEASE (YEARS)	TREE OWNERSHIP	LANDOWNER RIGHTS	DISTINCTIVE ATTRIBUTES
Feral Farm	Landowner & farmer	15	Farmer	Use of alleys for hay or livestock	Communication clause; future alley use for pasture
Vulcan Farm	Landowner & farmer	99	Landowner: trees as trees; Farmer: trees as crops	Alley grazing, trees as trees, personal harvest	Landowner enrolled in CRP; market adjusted lease rate
Saturn Farm	Landowner, investor & farmer	30	Farmer	None	Farmer enrolled in CRP; absentee landowner
Humble Hands Harvest	Cooperative, LLC landowner, and donors	1	Cooperative	None	Coop manages commons; neighborhood farmland investors
Green Pastures Farm	Landowners & farmer	>7	Landowner	Access; hunting	Infrastructure in leases
Aspen Farm	Farm owner, land-owner, herd owner, herd manager	1	Landowner	Access; hunting	Lessee converted forest silvopasture
Silverwood County Park	Municipality, 2 non-profits, 2 farmers	Varies	Landowner	Designated public access	Municipal landowner
Main Street Project Research Farm	Non-profit, land-owners, farmers, LLC, investor	Varies	Non-profit	House site	Multiple landowners
Farley Center Farm Incubator	Non-profit, farmers	1	Landowner	USDA organic standards	Informal security of long-term tenure
Community Groundworks	Land trusts, non-profit, public	50	Non-profit; public access	None	Public harvests at will
Brix Cider	18 landowners & value-added business	None	Landowner	All except agreed harvest	No formal or legal contracts

## DISCUSSION & CONCLUSIONS

This study documented a diversity of forms of cooperation in multi-party agroforestry (MA). MA generally emerged from shared objectives, intensive planning, and ongoing coordination. MA appears to be adaptable to private, investor, institutional, and public landowners, as well as beginning farmers and others seeking land access without ownership. Leasing land can ease the capital requirements to begin and expand agroforestry operations as long as terms are appropriate and tenure is secure. MA represents a social mechanism for conservation in agricultural landscapes with the potential to enhance crop production and broader public benefits, including carbon sequestration; biodiversity; soil and water quality; and resiliency.

Potential limitations to wider application of MA include a lack of agroforestry land management companies, technical service providers, and third-party match-makers and facilitators. Further research is needed to document and assess MA in other regions. There is also a need to evaluate outcomes of MA over time.

ACKNOWLEDGMENTS	
This project was funded through the National Agroforestry Center by USDA Forest Service State & Private Forestry grant number #18-DG-11132540-046 to the Savanna Institute.	
Thank you Roxanne Aubrey Marina for poster design and layout. Thank you Ginny Maki McClure for illustrations.	
We appreciate the time, information, and insight provided by the farmers, landowners, and others whom we interviewed.	