

NATIONAL AGROFORESTRY SURVEY 2022

OMB No.
Approval Expires: 1/1/0001
Project Code:
SurveyId: 9032



**United States
Department of
Agriculture**



**NATIONAL
AGRICULTURAL
STATISTICS
SERVICE**

USDA/NASS - National
Northeastern Region
4050 Crums Mill Road, #203
Harrisburg, PA 17112-2875
Phone: 1-800-498-1518
FAX: 1-855-270-2719
Email: NASSRFONER@usda.gov

Please make corrections to name, address and ZIP Code, if necessary.

The information you provide will be used for statistical purposes only. Your response will be kept confidential and any person who willfully discloses ANY identifiable information about you or your operation is subject to a jail term, a fine, or both. This survey is conducted in accordance with the Confidential Information Protection and Statistical Efficiency Act of 2018, Title III of Pub. L. No. 115-435, codified in 44 U.S.C. Ch. 35 and other applicable Federal laws. For more information on how we protect your information please visit: <https://www.nass.usda.gov/confidentiality>. Response is voluntary.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB number is 0535-xxxx. The time required to complete this information collection is estimated to average xx minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

Screener

1. In the past 12 months, did this operation:

a. Raise or sell any livestock (possible examples include cattle, hogs, sheep, goats, equine, poultry, bees, etc.)?

0001 1 ☐ Yes 3 ☐ No

b. Own and/or operate cropland, pastureland, woodland, rangeland, or other land with agricultural or forestry activities?

0002 1 ☐ Yes 3 ☐ No

c. Received any Federal or state agricultural payments and/or participated in a Federal or state agricultural program?

0003 1 ☐ Yes 3 ☐ No

d. Did you answer **Yes** to any of the questions above?

0004 1 ☐ Yes - Continue 3 ☐ No - Go to Section 6, page 22

Section 1 - Windbreaks, Shelterbelts and Hedgerows

Windbreaks, Shelterbelts and Hedgerows are rows of trees and shrubs that are used to create a more favorable environment for soils, crops, livestock, wildlife, and people. In some cases, they are designed to slow wind, while other times they are designed for visual screening, snow management, odor control, shade for livestock/buildings/people, enhancing pollination, field/property borders, etc.

Does this operation have any land in **windbreaks, shelterbelts or hedgerows**?

1000 ☐ 1 Yes - Continue

☐ 3 No - Go to Section 2, page 6

1. Does this operation utilize any of the following types of windbreak, shelterbelt and/or hedgerow? Check all that apply

1001 ☐ **Farmstead** - for use around buildings (shade, energy savings, etc.)

1002 ☐ **Field** - for use in protecting crops (field, orchards, etc.)

1003 ☐ **Livestock** - for use in protecting livestock and/or odor control

1004 ☐ **Boundary** - primarily used for enclosing or separating fields

1005 ☐ **Living snow fence** - specifically designed for snow management

1006 ☐ **Hedgerow** - primarily used for natural resource conservation purposes

1007 ☐ **Other** - Specify: 1008 _____

2. Were any of the following activities used to establish windbreaks, shelterbelts, and/or hedgerows on this operation?

Establishment Activities	YES	NO	DON'T KNOW
Hand planted tree seedlings 1009	☐ 1	☐ 3	☐ 2
Mechanically planted tree seedlings 1010	☐ 1	☐ 3	☐ 2
Used herbicides for weed control/site preparation prior to planting 1011	☐ 1	☐ 3	☐ 2
Used cultivation for weed control/site preparation prior to planting 1012	☐ 1	☐ 3	☐ 2
Used barrier weed control (mulch, plastic, etc.) to establish trees 1013	☐ 1	☐ 3	☐ 2
Irrigated trees during the 1-3 year establishment period 1014	☐ 1	☐ 3	☐ 2
Controlled weeds after planting trees during the 1-3 year establishment period .. 1015	☐ 1	☐ 3	☐ 2
Installed fencing and/or tree tubes to protect trees from wildlife/livestock 1016	☐ 1	☐ 3	☐ 2
Replanted seedlings to fill gaps 1017	☐ 1	☐ 3	☐ 2
Established windbreak without planting by allowing trees to grow naturally..... 1018	☐ 1	☐ 3	☐ 2
Other establishment activities - Specify: 1019 _____			

3. When were windbreaks, shelterbelts, and/or hedgerows established on this operation? Check all that apply

1020	☐ 1 Less than 5 years ago ☐ 2 5 years - less than 10 years ago ☐ 3 10 years - less than 15 years ago	☐ 4 Greater than 15 years ago ☐ 5 Don't Know
------	---	---

4. Have any of the following activities occurred, or will occur, to manage/maintain the windbreaks, shelterbelts, and/or hedgerows on this operation?

Management/Maintenance Activities	YES	NO	DON'T KNOW
Cultivation for weed control (disking, plowing, mowing, etc.) 1021	1 ☐	3 ☐	2 ☐
Herbicide for weed control 1022	1 ☐	3 ☐	2 ☐
Barrier weed control (mulching/fabric) 1023	1 ☐	3 ☐	2 ☐
Flash or short duration grazing within windbreaks 1024	1 ☐	3 ☐	2 ☐
Pruning of tree branches and stems 1025	1 ☐	3 ☐	2 ☐
Replanting trees/windbreak vegetation 1026	1 ☐	3 ☐	2 ☐
Removal of living or dead trees (thinning) 1027	1 ☐	3 ☐	2 ☐
Irrigation of trees 1028	1 ☐	3 ☐	2 ☐
Fertilization and/or soil amendments for the trees 1029	1 ☐	3 ☐	2 ☐
Root pruning 1030	1 ☐	3 ☐	2 ☐
Fencing or tree tubes to protect trees from wildlife/livestock..... 1031	1 ☐	3 ☐	2 ☐
Other management activities - Specify: ¹⁰³² _____			

5. Of the crops/products originating from windbreak trees and shrubs listed below, please specify whether this operation has:

► sold this before

► plan to sell this in the future

► use this for personal or on-farm use

Check all that apply

Crops, Products and Resources from Windbreak, Shelterbelt, and/or Hedgerow Trees and Shrubs

Sold this before	Plan to sell this in the future	Use this for personal or on-farm use
1033 ☐	1034 ☐	1035 ☐
1036 ☐	1037 ☐	1038 ☐
1039 ☐	1040 ☐	1041 ☐
1042 ☐	1043 ☐	1044 ☐
1046 ☐	1047 ☐	1048 ☐
1050 ☐	1051 ☐	1052 ☐
1054 ☐	1055 ☐	1056 ☐
1058 ☐	1059 ☐	1060 ☐

- a. Firewood
- b. Trees for timber products (lumber, boards, veneer, utility poles, etc.)
- c. Trees for non-timber products (pulp, fence posts, woodchips, etc.)
- d. Forages/hay/fodder for livestock
- e. Edibles (raspberries, walnuts, maple syrup, etc.)
Specify products: ¹⁰⁴⁵
- f. Medicinal plants and herbs (American ginseng, goldenseal, etc.)
Specify products: ¹⁰⁴⁹
- g. Decorative plants and/or materials for landscaping
Specify products: ¹⁰⁵³
- h. Other crops/products - Specify: ¹⁰⁵⁷

6. In the next five years, will the acreage of trees and shrubs in windbreaks, shelterbelts, and/or hedgerows for this operation increase, decrease or stay the same? Check one

1061	1 ☐	Increase - Specify reason(s): ¹⁰⁶² _____
	2 ☐	Decrease - Specify reason(s): ¹⁰⁶³ _____
	3 ☐	Stay the same
	4 ☐	Don't Know

7. Do windbreaks, shelterbelts, and/or hedgerows provide any of the following benefits to this operation?

Number	Conservation Benefits		YES	NO	DON'T KNOW
1	Improved erosion control	1064	1 ☐	3 ☐	2 ☐
2	Improved soil health	1065	1 ☐	3 ☐	2 ☐
3	Habitat for pollinators and other beneficial insects	1066	1 ☐	3 ☐	2 ☐
4	Wildlife habitat	1067	1 ☐	3 ☐	2 ☐
5	Improved water quality	1068	1 ☐	3 ☐	2 ☐
6	Improved nutrient management	1069	1 ☐	3 ☐	2 ☐
7	Chemical drift mitigation (pesticide, herbicide, fertilizer)	1070	1 ☐	3 ☐	2 ☐
8	Dust mitigation	1071	1 ☐	3 ☐	2 ☐
9	Increased carbon storage in soils, trees, and vegetation	1072	1 ☐	3 ☐	2 ☐
Economic Benefits					
10	Increased crop production/yield	1073	1 ☐	3 ☐	2 ☐
11	Improved crop quality	1074	1 ☐	3 ☐	2 ☐
12	Income from windbreak trees/shrubs (firewood, timber, nuts, etc.)	1075	1 ☐	3 ☐	2 ☐
13	Crops/products for on-farm or personal use from windbreak trees/shrubs (firewood, timber, nuts, etc.)	1076	1 ☐	3 ☐	2 ☐
14	Improved welfare of livestock	1077	1 ☐	3 ☐	2 ☐
15	Increased livestock production	1078	1 ☐	3 ☐	2 ☐
16	Snow management	1079	1 ☐	3 ☐	2 ☐
17	Protection of farm buildings, home, and other structures	1080	1 ☐	3 ☐	2 ☐
18	Income diversification from multiple crops/products	1081	1 ☐	3 ☐	2 ☐
19	Farmstead energy conservation	1082	1 ☐	3 ☐	2 ☐
20	Increased crop water use efficiency and/or irrigation efficiency	1083	1 ☐	3 ☐	2 ☐
21	Revenue from hunting leases	1084	1 ☐	3 ☐	2 ☐
22	Reduced spread of tree diseases (canker, citrus greening, etc)	1085	1 ☐	3 ☐	2 ☐
23	Improvement of marginal or unfarmable land	1086	1 ☐	3 ☐	2 ☐
24	Increased land value	1087	1 ☐	3 ☐	2 ☐
25	Revenue from conservation payments	1088	1 ☐	3 ☐	2 ☐
26	Improved resilience to weather extremes (drought, flood, etc.)	1089	1 ☐	3 ☐	2 ☐
Other Benefits					
27	Improved working or living environment from less intense wind	1090	1 ☐	3 ☐	2 ☐
28	Aesthetics/scenic beauty	1091	1 ☐	3 ☐	2 ☐
29	Privacy/visual screening	1092	1 ☐	3 ☐	2 ☐
30	Hunting	1093	1 ☐	3 ☐	2 ☐
31	Recreation (other than hunting)	1094	1 ☐	3 ☐	2 ☐
32	Odor reduction	1095	1 ☐	3 ☐	2 ☐
33	Noise reduction	1096	1 ☐	3 ☐	2 ☐
34	Other benefit(s) - Specify: ¹⁰⁹⁷				

8. Of the windbreak, shelterbelt, and/or hedgerow benefits listed above (1 - 34), which 3 are most important to this operation? Enter the 3 corresponding numbers from the table above

Enter Number		
1098	1099	1100

9. Have any of the following been challenges on this operation when establishing or managing windbreaks, shelterbelts, and/or hedgerows?

Number	Potential Challenges	YES	NO	DON'T KNOW
1	Lack of information about establishment 1101	1 ☐	3 ☐	2 ☐
2	Difficulty establishing trees/shrubs 1102	1 ☐	3 ☐	2 ☐
3	High startup costs 1103	1 ☐	3 ☐	2 ☐
4	Lack of information on management and maintenance 1104	1 ☐	3 ☐	2 ☐
5	Difficulty regrowing trees within an established windbreak 1105	1 ☐	3 ☐	2 ☐
6	Expense of maintenance 1106	1 ☐	3 ☐	2 ☐
7	Lack of information on recommended tree/shrub species 1107	1 ☐	3 ☐	2 ☐
8	Lack of knowledge among technical assistance providers 1108	1 ☐	3 ☐	2 ☐
9	Lack of examples or demonstration sites 1109	1 ☐	3 ☐	2 ☐
10	Lack of financial assistance 1110	1 ☐	3 ☐	2 ☐
11	Lack of markets for products from windbreak 1111	1 ☐	3 ☐	2 ☐
12	Loss of cropland 1112	1 ☐	3 ☐	2 ☐
13	Harbors harmful crop pests (wildlife, insects, weeds, etc.) 1113	1 ☐	3 ☐	2 ☐
14	Conflict with farm equipment, practices, or layout 1114	1 ☐	3 ☐	2 ☐
15	Trees and crops compete for space, light, water, and nutrients 1115	1 ☐	3 ☐	2 ☐
16	Livestock damage to trees 1116	1 ☐	3 ☐	2 ☐
17	Wildlife damage to trees 1117	1 ☐	3 ☐	2 ☐
18	Tree/shrub pests and diseases 1118	1 ☐	3 ☐	2 ☐
19	Herbicide damaging trees/shrubs 1119	1 ☐	3 ☐	2 ☐
20	Snow drift issues 1120	1 ☐	3 ☐	2 ☐
21	Adds labor and complexity to management 1121	1 ☐	3 ☐	2 ☐
22	Other challenge(s) - Specify: 1122 _____			

10. Of the challenges listed above (1 - 22), which 3 are most significant to this operation? Enter the 3 corresponding numbers from the table above

Enter Number		
1123 _____	1124 _____	1125 _____

11. Please estimate the total land area in windbreak, shelterbelt and/or hedgerow for this operation. Include all windbreak types.

INCLUDE: ► land owned ► rented ► leased from others	Estimate as acres OR length and width
---	--

ACRES

1126

- a. Total acres of windbreak.....

OR

FEET

MILES

- b. Average width of windbreaks.....

1127

AND

total combined length of windbreaks
rounded to the nearest 1/4 mile

1128

Section 2 - Silvopasture

Grazing livestock on a site with trees is considered **silvopasture** if all three components of the system (livestock, trees, and forage) are deliberately integrated and managed. Some examples of silvopasture include:

- ▶ woodland, forest, or forest edge that is managed to produce forage, livestock and trees simultaneously
- ▶ grazing land where trees were added to pasture
- ▶ orchards where livestock are integrated
- ▶ grazing natural savannas

Does this operation have any land in **silvopasture**?

²⁰⁰⁰ 1 ☐ Yes - Continue

3 ☐ No - Go to Section 3, page 11

Silvopasture Acres

1. How many acres of land does this operation have in silvopasture?

INCLUDE: land owned, rented, and leased from others

2001

2. Were any of the following activities used to establish silvopasture(s) on this operation?

Establishment Activities	YES	NO	DON'T KNOW
Converted a pasture or field to silvopasture by planting trees 2002	1 ☐	3 ☐	2 ☐
Converted an existing tree plantation to silvopasture by removing some trees and incorporating livestock and forage..... 2003	1 ☐	3 ☐	2 ☐
Converted an existing forest, woodlot, or forested edge to silvopasture by removing some trees and incorporating livestock and forage 2004	1 ☐	3 ☐	2 ☐
Converted from a natural savanna to silvopasture by adding livestock 2005	1 ☐	3 ☐	2 ☐
Converted a former field or pasture to silvopasture over time by allowing trees to grow naturally 2006	1 ☐	3 ☐	2 ☐
Converted an orchard to silvopasture by incorporating livestock 2007	1 ☐	3 ☐	2 ☐
Other conversion strategy - Specify: ²⁰⁰⁸			
Site Preparation and Infrastructure Activities			
Removed stumps (grinding, grubbing, shearing, etc.) 2009	1 ☐	3 ☐	2 ☐
Cleared debris (slash, downed trees, rocks, etc.) 2010	1 ☐	3 ☐	2 ☐
Used cultivation for site preparation (disking, scarification, etc.) 2011	1 ☐	3 ☐	2 ☐
Used herbicides prior to or during establishment 2012	1 ☐	3 ☐	2 ☐
Used livestock to assist with establishment 2013	1 ☐	3 ☐	2 ☐
Used prescribed fire prior to establishment 2014	1 ☐	3 ☐	2 ☐
Used fertilizer and/or soil amendments to assist with establishment 2015	1 ☐	3 ☐	2 ☐
Seeded forages - Specify species: ²⁰¹⁶ 2017	1 ☐	3 ☐	2 ☐
Allowed natural regeneration of forages 2018	1 ☐	3 ☐	2 ☐
Used fencing and/or tree tubes to protect trees from wildlife/livestock 2019	1 ☐	3 ☐	2 ☐
Installed or improved livestock watering system 2020	1 ☐	3 ☐	2 ☐
Installed fence infrastructure (boundary fencing, cross fencing, etc.) 2021	1 ☐	3 ☐	2 ☐
Other establishment activities - Specify: ²⁰²²			

3. Please check the box for the type of livestock utilizing the silvopasture(s) on this operation. Also, please specify the average stocking rate of those livestock as animals/acre OR animal units/acre.

Type of Livestock (Mark all that apply)	Animals/Acre		AnimalUnits/Acre
2023 ☐ Cattle.....	2024	OR	2025
2026 ☐ Chickens	2027	OR	2028
2029 ☐ Sheep	2030	OR	2031
2032 ☐ Goats	2033	OR	2034
2035 ☐ Hogs and Pigs	2036	OR	2037
2038 ☐ Horses	2039	OR	2040
2041 ☐ Other - Specify: 2042.....	2043	OR	2044

4. Of the crops/products originating from silvopasture listed below, please specify whether this operation has:

► sold this before

► plan to sell this in the future

► use this for personal or on-farm use

Check all that apply

Crops, Products and Resources from Silvopasture

a. Firewood

b. Trees for timber products (lumber, boards, veneer, utility poles, etc.)

c. Trees for non-timber products (pulp, fence posts, woodchips, etc.)

d. Forages/hay/fodder for livestock

e. Livestock products (milk, meat, stockers, wool, etc.)

Specify products: 2057

f. Edibles (walnuts, maple syrup, apples, etc.)

Specify products: 2061

g. Medicinal plants and herbs (American ginseng, goldenseal, etc.)

Specify products: 2065

h. Materials for landscaping and/or decorative plants

Specify products: 2069

i. Other crops/products - Specify: 2073

Sold this before	Plan to sell this in the future	Use this for personal or on-farm use
2045 ☐	2046 ☐	2047 ☐
2048 ☐	2049 ☐	2050 ☐
2051 ☐	2052 ☐	2053 ☐
2054 ☐	2055 ☐	2056 ☐
2058 ☐	2059 ☐	2060 ☐
2062 ☐	2063 ☐	2064 ☐
2066 ☐	2067 ☐	2068 ☐
2070 ☐	2071 ☐	2072 ☐
2074 ☐	2075 ☐	2076 ☐

5. When were silvopasture(s) established on this operation? Check all that apply

2077	1 ☐ Less than 5 years ago	3 ☐ 10 years - less than 15 years ago	5 ☐ Don't Know
	2 ☐ 5 years - less than 10 years ago	4 ☐ Greater than 15 years ago	

6. Do the silvopasture(s) provide any of the following benefits to this operation?

Number	Conservation Benefits	YES	NO	DON'T KNOW
1	Invasive/noxious plant control 2078	1 ☐	3 ☐	2 ☐
2	Habitat for pollinators and other beneficial insects..... 2079	1 ☐	3 ☐	2 ☐
3	Wildlife habitat 2080	1 ☐	3 ☐	2 ☐
4	Improved soil health..... 2081	1 ☐	3 ☐	2 ☐
5	Improved soil erosion control..... 2082	1 ☐	3 ☐	2 ☐
6	Improved nutrient management..... 2083	1 ☐	3 ☐	2 ☐
7	Increased carbon storage in soils, trees and vegetation 2084	1 ☐	3 ☐	2 ☐
8	Improved water quality 2085	1 ☐	3 ☐	2 ☐
Economic Benefits				
9	Expansion of pasture acreage..... 2086	1 ☐	3 ☐	2 ☐
10	Income from sale of products (meat, eggs, stockers, timber, etc.)..... 2087	1 ☐	3 ☐	2 ☐
11	Crops/products for on-farm or personal use..... 2089	1 ☐	3 ☐	2 ☐
12	Improved animal welfare and health..... 2089	1 ☐	3 ☐	2 ☐
13	Increased livestock production..... 2090	1 ☐	3 ☐	2 ☐
14	Improved forage quality..... 2091	1 ☐	3 ☐	2 ☐
15	Increased forage availability throughout the year..... 2092	1 ☐	3 ☐	2 ☐
16	Increased forage production on a per acre basis..... 2093	1 ☐	3 ☐	2 ☐
17	Reduction in feed purchases..... 2094	1 ☐	3 ☐	2 ☐
18	Improvement of marginal, unproductive or unfarmable land..... 2095	1 ☐	3 ☐	2 ☐
19	Income diversification from multiple crops/products..... 2096	1 ☐	3 ☐	2 ☐
20	Increased land value..... 2097	1 ☐	3 ☐	2 ☐
21	Revenue from conservation payments..... 2098	1 ☐	3 ☐	2 ☐
22	Revenue from hunting leases..... 2099	1 ☐	3 ☐	2 ☐
23	Timber stand improvement..... 2100	1 ☐	3 ☐	2 ☐
24	Increased water use efficiency..... 2101	1 ☐	3 ☐	2 ☐
Other Benefits				
25	Wildfire fuel reduction..... 2102	1 ☐	3 ☐	2 ☐
26	Aesthetics/scenic beauty..... 2103	1 ☐	3 ☐	2 ☐
27	Hunting 2104	1 ☐	3 ☐	2 ☐
28	Recreation (other than hunting)..... 2105	1 ☐	3 ☐	2 ☐
29	Odor reduction..... 2106	1 ☐	3 ☐	2 ☐
30	Improved resilience to weather extremes (drought, flood, etc.) 2107	1 ☐	3 ☐	2 ☐
31	Other benefit(s) - Specify: ²¹⁰⁸ _____			

7. Of the silvopasture benefits listed above (1 - 31), which 3 are most important to this operation? Enter the 3 corresponding numbers from the table above ..

Enter Number

2109 _____	2110 _____	2111 _____
------------	------------	------------

8. Have any of the following activities occurred, or will occur, to manage/maintain the silvopasture on this operation?

Management/Maintenance Activities	YES	NO	DON'T KNOW
Cultivation for weed control (mowing, hand pulling, etc.) 2112	1 ☐	3 ☐	2 ☐
Herbicide for weed control 2113	1 ☐	3 ☐	2 ☐
Prescribed fire 2114	1 ☐	3 ☐	2 ☐
Irrigation 2115	1 ☐	3 ☐	2 ☐
Fertilization and/or soil amendments 2116	1 ☐	3 ☐	2 ☐
Replanting trees 2117	1 ☐	3 ☐	2 ☐
Replanting forages 2118	1 ☐	3 ☐	2 ☐
Pruning of tree branches and stems 2119	1 ☐	3 ☐	2 ☐
Removal of trees (thinning) 2120	1 ☐	3 ☐	2 ☐
Removal of undesirable understory vegetation 2121	1 ☐	3 ☐	2 ☐
Fencing or tree tubes to protect trees from wildlife/livestock 2122	1 ☐	3 ☐	2 ☐
Rotational grazing 2123	1 ☐	3 ☐	2 ☐
Utilize pastures without trees as part of grazing management 2124	1 ☐	3 ☐	2 ☐
Provide supplements to livestock (minerals, hay, grain, etc.) when in silvopasture 2125	1 ☐	3 ☐	2 ☐
Other management activities - Specify: 2126 _____			

9. Please list up to 3 tree species growing in your silvopastures that are the most useful for your desired goals. List trees by species name (example: loblolly pine, red oak, etc.). If unsure of species name, list trees by common name (example: pine, oak, etc.).

2127	Specify species: _____
2128	Specify species: _____
2129	Specify species: _____

10. Have any of the following been challenges on this operation when establishing or managing the silvopasture(s)?

Number	Potential Challenges	YES	NO	DON'T KNOW
1	Lack of information about establishment 2130	1 ☐	3 ☐	2 ☐
2	Difficulty establishing trees, crops, or forage 2131	1 ☐	3 ☐	2 ☐
3	High startup costs 2132	1 ☐	3 ☐	2 ☐
4	Lack of information on management and maintenance 2133	1 ☐	3 ☐	2 ☐
5	Difficulty regrowing trees within an established silvopasture 2134	1 ☐	3 ☐	2 ☐
6	Expense of maintenance 2135	1 ☐	3 ☐	2 ☐
7	Lack of information on recommended tree, crop, or livestock species 2136	1 ☐	3 ☐	2 ☐
8	Lack of knowledge among technical assistance providers 2137	1 ☐	3 ☐	2 ☐
9	Lack of examples or demonstration sites 2138	1 ☐	3 ☐	2 ☐
10	Lack of financial assistance 2139	1 ☐	3 ☐	2 ☐
11	Lack of markets for products from silvopasture 2140	1 ☐	3 ☐	2 ☐
12	Adds labor and complexity to management 2141	1 ☐	3 ☐	2 ☐
13	Conflict with farm equipment, practices, or layout 2142	1 ☐	3 ☐	2 ☐
14	Trees, forage and livestock competing for space, light, etc. 2143	1 ☐	3 ☐	2 ☐
15	Livestock damage to trees 2144	1 ☐	3 ☐	2 ☐
16	Wildlife damage to trees 2145	1 ☐	3 ☐	2 ☐
17	Tree/shrub pests and diseases 2146	1 ☐	3 ☐	2 ☐
18	Windthrow (trees falling over after thinning) 2147	1 ☐	3 ☐	2 ☐
19	Livestock poisoning from foraging on toxic plants 2148	1 ☐	3 ☐	2 ☐
20	Soil compaction from livestock 2149	1 ☐	3 ☐	2 ☐
21	Other challenge - Specify: 2150 _____			

11. Of the challenges listed above (1 - 21), which 3 are most significant to this operation? Enter the 3 corresponding numbers from the table above

Enter Number		
2151 _____	2152 _____	2153 _____

12. In the next five years, will the acreage in silvopasture for this operation increase, decrease or stay the same?
Check one

2154	1 ☐	Increase - Specify reason(s): 2155 _____
	2 ☐	Decrease - Specify reason(s): 2156 _____
	3 ☐	Stay the same
	4 ☐	Don't Know

Section 3 - Riparian Forest Buffers

A riparian forest buffer is an area adjacent to a stream, river, lake, or wetland that contains a combination of trees and shrubs and is often used for erosion control, bank stabilization, and nutrient runoff control. They are also called: stream management zones, vegetated buffer strips, woody riparian buffers, and riparian forest corridors.

Does this operation have any land in **riparian forest buffers**?

3000 1 ☐ Yes - Continue 3 ☐ No - Go to Section 4, page 15

1. Please estimate the total land area in riparian forest buffer(s) for this operation.

INCLUDE: ► land owned ► rented ► leased from others	Estimate as acres OR length and width
---	--

a. Riparian forest buffer **ACRES** 3001

OR

b. Average width of buffers **FEET** 3002 **AND** total combined length of buffers rounded to the nearest 1/4 mile **MILES** 3003

2. Were any of the following activities used to establish riparian forest buffers on this operation?

Establishment Activities	YES	NO	DON'T KNOW
Allowed trees and vegetation to grow naturally 3004	1 ☐	3 ☐	2 ☐
Planted buffer trees and vegetation 3005	1 ☐	3 ☐	2 ☐
Used herbicides for weed control/site preparation prior to planting trees 3006	1 ☐	3 ☐	2 ☐
Used cultivation for weed control/site preparation prior to planting trees 3007	1 ☐	3 ☐	2 ☐
Used barrier weed control (mulch, plastic, etc.) to establish trees 3008	1 ☐	3 ☐	2 ☐
Irrigated buffer vegetation during the 1-3 year establishment period 3009	1 ☐	3 ☐	2 ☐
Controlled weeds after planting trees during the 1-3 year establishment period . 3010	1 ☐	3 ☐	2 ☐
Installed fencing and/or tree tubes to protect trees/shrubs from wildlife/livestock..... 3011	1 ☐	3 ☐	2 ☐
Replanted buffer trees or vegetation to fill gaps 3012	1 ☐	3 ☐	2 ☐
Other establishment activities - Specify: 3013 _____			

3. When were riparian forest buffers established on this operation? Check all that apply

3014 1 ☐ Less than 5 years ago 3 ☐ 10 years - less than 15 years ago 5 ☐ Don't Know
 2 ☐ 5 years - less than 10 years ago 4 ☐ Greater than 15 years ago

4. In the next five years, will the acreage in riparian forest buffer(s) for this operation increase, decrease or stay the same? Check one

3015 1 ☐ Increase - Specify reason(s): 3016 _____
 2 ☐ Decrease - Specify reason(s): 3017 _____
 3 ☐ Stay the same
 4 ☐ Don't Know

5. Have any of the following activities occurred, or will occur, to manage/maintain the riparian forest buffers on this operation?

Management/Maintenance Activities	YES	NO	DON'T KNOW
Cultivation for weed control (disking, plowing, mowing, etc.) 3018	1 ☐	3 ☐	2 ☐
Herbicide for weed control 3019	1 ☐	3 ☐	2 ☐
Barrier weed control (mulching/fabric) 3020	1 ☐	3 ☐	2 ☐
Flash or short duration grazing within buffer 3021	1 ☐	3 ☐	2 ☐
Pruning of tree branches and stems 3022	1 ☐	3 ☐	2 ☐
Root pruning 3023	1 ☐	3 ☐	2 ☐
Removal of trees/buffer vegetation (thinning) 3024	1 ☐	3 ☐	2 ☐
Removal of trees/debris that have fallen into waterways 3025	1 ☐	3 ☐	2 ☐
Replanting trees/vegetation 3026	1 ☐	3 ☐	2 ☐
Irrigation of trees/shrubs 3027	1 ☐	3 ☐	2 ☐
Fertilization and/or soil amendments for the trees/shrubs 3028	1 ☐	3 ☐	2 ☐
Fencing or tree tubes to protect trees/shrubs from wildlife/livestock 3029	1 ☐	3 ☐	2 ☐
Other management activities - Specify: 3030 _____			

6. Of the crops/products originating from riparian forest buffer trees and shrubs listed below, please specify whether this operation has:

► sold this before

► plan to sell this in the future

► use this for personal or on-farm use

Check all that apply

Crops, Products and Resources from Buffer Trees and Shrubs

- a. Firewood 3031 ☐
- b. Trees for timber products (lumber, boards, veneer, utility poles, etc.) 3034 ☐
- c. Trees for non-timber products (pulp, fence posts, woodchips, etc.) 3037 ☐
- d. Forages/hay/fodder for livestock 3040 ☐
- e. Edibles (raspberries, walnuts, maple syrup, etc.) 3044 ☐
- Specify products: 3043 _____
- f. Medicinal plants and herbs (American ginseng, goldenseal, etc.) 3048 ☐
- Specify products: 3047 _____
- g. Decorative plants and/or materials for landscaping 3052 ☐
- Specify products: 3051 _____
- h. Other crops/products: Specify: 3055 _____

Sold this before	Plan to sell this in the future	Use this for personal or on-farm use
3031 ☐	3032 ☐	3033 ☐
3034 ☐	3035 ☐	3036 ☐
3037 ☐	3038 ☐	3039 ☐
3040 ☐	3041 ☐	3042 ☐
3044 ☐	3045 ☐	3046 ☐
3048 ☐	3049 ☐	3050 ☐
3052 ☐	3053 ☐	3054 ☐
3056 ☐	3057 ☐	3058 ☐

7. Do riparian forest buffers provide any of the following benefits to this operation?

Number	Conservation Benefits	YES	NO	DON'T KNOW
1	Improved erosion control 3059	1 ☐	3 ☐	2 ☐
2	Bank stabilization 3060	1 ☐	3 ☐	2 ☐
3	Improved soil health 3061	1 ☐	3 ☐	2 ☐
4	Improved water quality 3062	1 ☐	3 ☐	2 ☐
5	Improved nutrient management 3063	1 ☐	3 ☐	2 ☐
6	Chemical drift mitigation (pesticide, herbicide, fertilizer) 3064	1 ☐	3 ☐	2 ☐
7	Shade for aquatic environment 3065	1 ☐	3 ☐	2 ☐
8	Increased carbon storage in soils, trees, and vegetation 3066	1 ☐	3 ☐	2 ☐
9	Habitat for pollinators and other beneficial insects 3067	1 ☐	3 ☐	2 ☐
10	Wildlife habitat (both land and water) 3068	1 ☐	3 ☐	2 ☐
Economic Benefits				
11	Income from buffer trees/shrubs (firewood, timber, edibles, etc.) 3069	1 ☐	3 ☐	2 ☐
12	Crops/products for on-farm or personal use from buffer trees/shrubs (firewood, timber, nuts, etc.) 3070	1 ☐	3 ☐	2 ☐
13	Income diversification from multiple crops/products 3071	1 ☐	3 ☐	2 ☐
14	Improvement of marginal, unproductive or unfarmable land 3072	1 ☐	3 ☐	2 ☐
15	Crop protection 3073	1 ☐	3 ☐	2 ☐
16	Increased land value 3074	1 ☐	3 ☐	2 ☐
17	Revenue from conservation payments..... 3075	1 ☐	3 ☐	2 ☐
18	Revenue from hunting leases 3076	1 ☐	3 ☐	2 ☐
19	Traps debris from being deposited on crop fields during flooding 3077	1 ☐	3 ☐	2 ☐
Other Benefits				
20	Hunting 3078	1 ☐	3 ☐	2 ☐
21	Recreation (other than hunting) 3079	1 ☐	3 ☐	2 ☐
22	Improved resilience to weather extremes (drought, flood, etc.) 3080	1 ☐	3 ☐	2 ☐
23	Scenic beauty and aesthetics 3081	1 ☐	3 ☐	2 ☐
24	Other benefit(s) - Specify: 3082			

8. Of the riparian forest buffer benefits listed above (1 - 24), which 3 are most important to this operation? Enter the 3 corresponding numbers from the table above

Enter Number

3083 ____	3084 ____	3085 ____
--------------	--------------	--------------

9. Have any of the following been challenges on this operation when establishing or managing the riparian forest buffers?

Number	Potential Challenges	YES	NO	DON'T KNOW
1	Lack of information about establishment 3086	1 ☐	3 ☐	2 ☐
2	Difficulty establishing trees/shrubs 3087	1 ☐	3 ☐	2 ☐
3	High startup costs 3088	1 ☐	3 ☐	2 ☐
4	Lack of information on management and maintenance 3089	1 ☐	3 ☐	2 ☐
5	Difficulty regrowing trees within an established buffer 3090	1 ☐	3 ☐	2 ☐
6	Expense of maintenance 3091	1 ☐	3 ☐	2 ☐
7	Lack of information on recommended tree/shrub species 3092	1 ☐	3 ☐	2 ☐
8	Lack of buffer knowledge among technical assistance providers 3093	1 ☐	3 ☐	2 ☐
9	Lack of examples or demonstration sites 3094	1 ☐	3 ☐	2 ☐
10	Lack of financial assistance 3095	1 ☐	3 ☐	2 ☐
11	Lack of markets for products from buffers 3096	1 ☐	3 ☐	2 ☐
12	Loss of cropland 3097	1 ☐	3 ☐	2 ☐
13	Adds labor and complexity to management 3098	1 ☐	3 ☐	2 ☐
14	Conflict with farm equipment, practices, or layout 3099	1 ☐	3 ☐	2 ☐
15	Trees and crops compete for space, light, water, and nutrients 3100	1 ☐	3 ☐	2 ☐
16	Trees falling into waterways 3101	1 ☐	3 ☐	2 ☐
17	Harbors harmful crop pests (wildlife, insects, weeds, etc.) 3102	1 ☐	3 ☐	2 ☐
18	Damage to buffer trees/vegetation from flooding 3103	1 ☐	3 ☐	2 ☐
19	Tree/shrub pests and diseases 3104	1 ☐	3 ☐	2 ☐
20	Herbicide drift damaging trees/shrubs 3105	1 ☐	3 ☐	2 ☐
21	Issues with subsurface drainage tiles 3106	1 ☐	3 ☐	2 ☐
22	Snow drift issues 3107	1 ☐	3 ☐	2 ☐
23	Damage to buffer trees/vegetation from livestock 3108	1 ☐	3 ☐	2 ☐
24	Damage to buffer trees/vegetation from wildlife 3109	1 ☐	3 ☐	2 ☐
25	Other challenge(s) - Specify: ³¹¹⁰ _____			

10. Of the challenges listed above (1 - 25), which 3 are most significant to this operation? Enter the 3 corresponding numbers from the table above

Enter Number		
3111	3112	3113
___	___	___

Section 4 - Alley Cropping and Intercropping with Trees and Crops

Alley cropping is the cultivation of crops or forages between rows of trees/shrubs. Orchards and tree plantations are considered as alley cropping if crops or forages are grown/harvested from between the rows of trees/shrubs. Intercropping is the deliberate cultivation of trees with crops or forages on the same field but does not need to be in defined rows and alleys.

Does this operation have any land in **alley cropping** and/or **intercropping** with trees/crops?

4000 ☐ Yes - Continue

3 ☐ No - Go to Section 5, page 19

1. How many acres of land does this operation have in alley cropping/intercropping?

INCLUDE: land owned, rented, and leased from others. Report acreage as the combined total of land in trees, crops, idle or fallow.

**Alley and Inter-
cropping Acres**

4001

2. Does alley cropping/intercropping provide any of the following benefits to this operation?

Number	Conservation Benefits	YES	NO	DON'T KNOW
1	Habitat for pollinators and other beneficial insects..... 4002	☐	☐	☐
2	Wildlife habitat..... 4003	☐	☐	☐
3	Improved soil health..... 4004	☐	☐	☐
4	Improved soil erosion control..... 4005	☐	☐	☐
5	Improved nutrient management..... 4006	☐	☐	☐
6	Increased carbon storage in soils, trees, and vegetation..... 4007	☐	☐	☐
7	Chemical drift mitigation (pesticide, herbicide, fertilizer) 4008	☐	☐	☐
8	Improved water quality..... 4009	☐	☐	☐
	Economic Benefits			
9	Income from sale of products (crops, timber, etc.)..... 4010	☐	☐	☐
10	Crops/products for on-farm or personal use..... 4011	☐	☐	☐
11	Increased production/yield of crops, forage, and/or tree products 4012	☐	☐	☐
12	Improved quality of crops, forage, and/or tree products 4013	☐	☐	☐
13	Increased crop water use efficiency and/or irrigation efficiency..... 4014	☐	☐	☐
14	Increased land value..... 4015	☐	☐	☐
15	Revenue from conservation payments..... 4016	☐	☐	☐
16	Revenue from hunting leases..... 4017	☐	☐	☐
17	Improved crop protection from insects and pests..... 4018	☐	☐	☐
18	Improvement of marginal, unproductive or unfarmable land..... 4019	☐	☐	☐
19	Income diversification from multiple crops/products..... 4020	☐	☐	☐
	Other Benefits			
20	Aesthetics/scenic beauty..... 4021	☐	☐	☐
21	Hunting 4022	☐	☐	☐
22	Recreation (other than hunting)..... 4023	☐	☐	☐
23	Improved resilience to weather extremes (drought, flood, etc.) 4024	☐	☐	☐
24	Other benefit(s) - Specify: 4025 _____			

3. Of the alley cropping/intercropping benefits listed above (1 - 24), which 3 are most important to this operation? Enter the 3 corresponding numbers from the table above

Enter Number

4026	4027	4028
_____	_____	_____

4. In the next five years, will the acreage in alley cropping/intercropping for this operation increase, decrease or stay the same? Check one

4029	1	☐ Increase - Specify reason(s):	4030
	2	☐ Decrease - Specify reason(s):	4031
	3	☐ Stay the same	
	4	☐ Don't Know	

5. Of the crops/products originating from alley cropping/intercropping listed below, please specify whether this operation has:

► sold this before

► plan to sell this in the future

► use this for personal or on-farm use

Check all that apply

Crops, Products and Resources from Alley Cropping/intercropping

- a. Firewood
- b. Trees for timber products (lumber, boards, veneer, utility poles, etc.)
- c. Trees for non-timber products (pulp, fence posts, woodchips, etc.)
- d. Forages/hay/fodder for livestock
- e. Edibles/crops (walnuts, apples, pecans, grapes, etc.)
Specify products: 4044
- f. Medicinal plants and herbs (American ginseng, goldenseal, etc.)
Specify products: 4048
- g. Decorative plants and/or materials for landscaping
Specify products: 4052
- h. Other crops/products - Specify: 4056

Sold this before	Plan to sell this in the future	Use this for personal or on-farm use
4032 ☐	4033 ☐	4034 ☐
4035 ☐	4036 ☐	4037 ☐
4038 ☐	4039 ☐	4040 ☐
4041 ☐	4042 ☐	4043 ☐
4045 ☐	4046 ☐	4047 ☐
4049 ☐	4050 ☐	4051 ☐
4053 ☐	4054 ☐	4055 ☐
4057 ☐	4058 ☐	4059 ☐

6. Please list the 3 most abundant tree and crop species combinations in alley cropping/intercropping system(s) by common name (example: black walnut, pecan, corn, soybean, etc.). If multiple combinations exist, please describe in the rows below.

TREES and/or SHRUBS	and	CROPS and/or FORAGES
Specify species: 4060		4061
Specify species: 4062		4063
Specify species: 4064		4065

7. When were alley cropping/intercropping systems established on this operation? Check all that apply

4066	1 ☐ Less than 5 years ago	3 ☐ 10 years - less than 15 years ago	5 ☐ Don't Know
	2 ☐ 5 years - less than 10 years ago	4 ☐ Greater than 15 years ago	

8. Were any of the following activities used to establish alley cropping/intercropping on this operation?

Establishment Activities	YES	NO	DON'T KNOW
Converted a pasture or field to alley cropping by planting trees 4067	1 ☐	3 ☐	2 ☐
Converted an existing tree plantation to alley cropping by removing some trees and adding crops or forage 4068	1 ☐	3 ☐	2 ☐
Converted an existing forest or woodlot to alley cropping by removing some trees and adding crops or forage 4069	1 ☐	3 ☐	2 ☐
Converted an orchard to alley cropping by adding crops or forage 4070	1 ☐	3 ☐	2 ☐
Other conversion strategy - Specify: ⁴⁰⁷¹ _____			
Site Preparation and Infrastructure Activities			
Used herbicides for weed control/site preparation prior to planting trees 4072	1 ☐	3 ☐	2 ☐
Used cultivation for weed control/site preparation prior to planting trees 4073	1 ☐	3 ☐	2 ☐
Used barrier weed control (mulch, plastic, etc.) to establish trees 4074	1 ☐	3 ☐	2 ☐
Irrigated trees during the 1- 3 year establishment period 4075	1 ☐	3 ☐	2 ☐
Controlled weeds after planting trees during the 1 - 3 year establishment period 4076	1 ☐	3 ☐	2 ☐
Replanted tree seedlings to fill gaps 4077	1 ☐	3 ☐	2 ☐
Used fertilizer and/or soil amendments prior to or during establishment 4078	1 ☐	3 ☐	2 ☐
Installed fencing and/or tree tubes to protect trees from wildlife/livestock 4079	1 ☐	3 ☐	2 ☐
Installed or improved irrigation infrastructure 4080	1 ☐	3 ☐	2 ☐
Other establishment activities - Specify: ⁴⁰⁸¹ _____			

9. Have any of the following activities occurred, or will occur, to manage/maintain the alley cropping/intercropping on this operation?

Management/Maintenance Activities	YES	NO	DON'T KNOW
Cultivation for weed control (disking, plowing, mowing, etc.) 4082	1 ☐	3 ☐	2 ☐
Herbicide for weed control 4083	1 ☐	3 ☐	2 ☐
Barrier weed control (mulching/fabric) 4084	1 ☐	3 ☐	2 ☐
Grazing livestock 4085	1 ☐	3 ☐	2 ☐
Pesticide 4086	1 ☐	3 ☐	2 ☐
Irrigation 4087	1 ☐	3 ☐	2 ☐
Fertilization and/or soil amendments 4088	1 ☐	3 ☐	2 ☐
Replanting trees 4089	1 ☐	3 ☐	2 ☐
Replanting crops 4090	1 ☐	3 ☐	2 ☐
Pruning of tree branches and stems 4091	1 ☐	3 ☐	2 ☐
Pruning of tree roots to reduce competition with crops 4092	1 ☐	3 ☐	2 ☐
Removal of living or dead trees (thinning) 4093	1 ☐	3 ☐	2 ☐
Fencing or tree tubes to protect trees or crops from wildlife/livestock 4094	1 ☐	3 ☐	2 ☐
Other management activities - Specify: ⁴⁰⁹⁵ _____			

10. Have any of the following been challenges on this operation when establishing or managing the alley cropping/intercropping systems?

Number	Potential Challenges	YES	NO	DON'T KNOW
1	Lack of information about establishment 4096	1 ☐	3 ☐	2 ☐
2	Difficulty establishing trees, crops, or forage 4097	1 ☐	3 ☐	2 ☐
3	High startup costs 4098	1 ☐	3 ☐	2 ☐
4	Lack of information on management and maintenance 4099	1 ☐	3 ☐	2 ☐
5	Difficulty regrowing trees in an established alley cropping system 4100	1 ☐	3 ☐	2 ☐
6	Expense of maintenance 4101	1 ☐	3 ☐	2 ☐
7	Lack of information on recommended tree/crop species combinations 4102	1 ☐	3 ☐	2 ☐
8	Lack of knowledge among technical assistance providers 4103	1 ☐	3 ☐	2 ☐
9	Lack of examples or demonstration sites 4104	1 ☐	3 ☐	2 ☐
10	Lack of financial assistance 4105	1 ☐	3 ☐	2 ☐
11	Lack of markets for products 4106	1 ☐	3 ☐	2 ☐
12	Adds labor and complexity to management 4107	1 ☐	3 ☐	2 ☐
13	Conflict with farm equipment, practices, or layout 4108	1 ☐	3 ☐	2 ☐
14	Trees and crops compete for space, light, water, and nutrients 4109	1 ☐	3 ☐	2 ☐
15	Wildlife damage to trees and crops 4110	1 ☐	3 ☐	2 ☐
16	Tree/shrub pests and diseases 4111	1 ☐	3 ☐	2 ☐
17	Herbicide drift damaging trees/shrubs 4112	1 ☐	3 ☐	2 ☐
18	Issues with snow drifts 4113	1 ☐	3 ☐	2 ☐
19	Other challenge(s) - Specify: 4114 _____			

11. Of the challenges listed above (1 - 19), which 3 are most significant to this operation? Enter the 3 corresponding numbers from the table above

Enter Number

4115 ____	4116 ____	4117 ____
--------------	--------------	--------------

Section 5 - Forest Farming / Multi-Story Cropping

Multi-Story Cropping/Forest Farming is the deliberate cultivation of crops under a canopy of trees. The canopy is often modified to provide levels of light that favor growth and enhanced production of the understory crops. Crops may include edibles (fruits, vegetables, nuts, mushrooms, etc.) tapping trees for syrup, nursery or landscaping plants, woodland herbal/medicinal plants, and decorative/floral products. A tree farm or plantation is not considered forest farming unless understory crops are intentionally cultivated underneath the canopy of trees.

Does this operation have any land in **forest farming/multi-story cropping**?

5000

1 ☐

Yes - Continue

3 ☐

No - Go to Section 6, bottom of page 22

1. Is the forest farming system on this operation managed in any of the following ways?

a. Wild-stewarded: Managing existing wild plant populations in a wooded environment with the goal of sustainable harvest. Involves minimal site preparation or inputs

5001

1 ☐

Yes

3 ☐

No

b. Wild-simulated: Deliberately cultivating crops in a natural growing environment. Involves minimal management to expose the soil for planting. Can involve modification of the forest canopy to favor growth

5002

1 ☐

Yes

3 ☐

No

c. Woods-grown: Cultivation in rows and/or clusters of a single crop under the forest canopy. May involve tilling, fertilizing, weeding and controlling disease and pests. Often includes clearing vegetation in the understory and thinning the forest overstory

5003

1 ☐

Yes

3 ☐

No

**Forest Farming
Acres**

2. How many acres of land does this operation have in forest farming/multi-story cropping?

INCLUDE: land owned, rented, and leased from others

5004

3. Were any of the following activities used to establish the forest farming system on this operation?

Establishment Activities	YES	NO	DON'T KNOW
Cultivation for weed control/site preparation 5005	1 ☐	3 ☐	2 ☐
Used barrier weed control (mulch, plastic, etc.) to establish crops 5006	1 ☐	3 ☐	2 ☐
Used herbicides for weed control/site preparation 5007	1 ☐	3 ☐	2 ☐
Used fertilizer and/or soil amendments prior to or during establishment 5008	1 ☐	3 ☐	2 ☐
Cleared debris (leaf layer, fallen trees, branches, rocks, etc.) 5009	1 ☐	3 ☐	2 ☐
Removed trees (thinning) 5010	1 ☐	3 ☐	2 ☐
Pruned tree branches 5011	1 ☐	3 ☐	2 ☐
Removed competing understory vegetation 5012	1 ☐	3 ☐	2 ☐
Installed irrigation infrastructure 5013	1 ☐	3 ☐	2 ☐
Installed fencing and/or tree tubes to protect trees/shrubs from livestock/wildlife 5014	1 ☐	3 ☐	2 ☐
Other establishment activities - Specify: 5015 _____			

4. When were forest farming system(s) established on this operation? Check all that apply

5016

1 ☐

Less than 5 years ago

3 ☐

10 years - less than 15 years ago

5 ☐

Don't Know

2 ☐

5 years - less than 10 years ago

4 ☐

Greater than 15 years ago

5. Have any of the following activities occurred, or will occur, to manage/maintain the forest farming system on this operation?

Management Activities	YES	NO	DON'T KNOW
Cultivation for weed control (pulling, disking, plowing, etc.) 5017	1 ☐	3 ☐	2 ☐
Herbicides for weed control 5018	1 ☐	3 ☐	2 ☐
Barrier weed control (mulching/fabric) 5019	1 ☐	3 ☐	2 ☐
Livestock grazing 5020	1 ☐	3 ☐	2 ☐
Prescribed fire 5021	1 ☐	3 ☐	2 ☐
Irrigation 5022	1 ☐	3 ☐	2 ☐
Fertilization and/or soil amendments 5023	1 ☐	3 ☐	2 ☐
Replanting trees 5024	1 ☐	3 ☐	2 ☐
Replanting understory crops 5025	1 ☐	3 ☐	2 ☐
Pruning of tree branches and stems 5026	1 ☐	3 ☐	2 ☐
Pruning of understory branches and stems 5027	1 ☐	3 ☐	2 ☐
Removal of living or dead trees (thinning) 5028	1 ☐	3 ☐	2 ☐
Removal/clearing of understory vegetation, rocks, and forest debris 5029	1 ☐	3 ☐	2 ☐
Fencing or tree tubes to protect trees/crops from wildlife/livestock 5030	1 ☐	3 ☐	2 ☐
Other management activities- Specify: ⁵⁰³¹ _____			

6. Of the crops/products originating from forest farming systems listed below, please specify whether this operation has:

► sold this before ► plans to sell this in the future ► use this for personal or on-farm use

Crops, Products and Resources from Forest Farming

- a. Firewood
- b. Trees for timber products (lumber, boards, veneer, utility poles, etc.)
- c. Trees for non-timber products (pulp, fence posts, woodchips, etc.)
- d. Edibles (shiitake mushrooms, maple syrup, ramps, etc.)
- Specify products: ⁵⁰⁴¹
- e. Medicinal plants and herbs (American ginseng, goldenseal, etc.)
- Specify products: ⁵⁰⁴⁵
- f. Decorative plants and/or materials for landscaping
- Specify products: ⁵⁰⁴⁹
- g. Other crops/products - Specify: ⁵⁰⁵³

Check all that apply

Sold this before	Plan to sell this in the future	Use this for personal or on-farm use
5032 ☐	5033 ☐	5034 ☐
5035 ☐	5036 ☐	5037 ☐
5038 ☐	5039 ☐	5040 ☐
5042 ☐	5043 ☐	5044 ☐
5046 ☐	5047 ☐	5048 ☐
5050 ☐	5051 ☐	5052 ☐
5054 ☐	5055 ☐	5056 ☐

7. Does forest farming provide any of the following benefits to this operation?

Number	Conservation Benefits	YES	NO	DON'T KNOW
1	Habitat for pollinators and other beneficial insects 5057	1 ☐	3 ☐	2 ☐
2	Wildlife habitat 5058	1 ☐	3 ☐	2 ☐
3	Improved soil health 5059	1 ☐	3 ☐	2 ☐
4	Improved soil erosion control 5060	1 ☐	3 ☐	2 ☐
5	Improved water quality 5061	1 ☐	3 ☐	2 ☐
6	Improved nutrient management 5062	1 ☐	3 ☐	2 ☐
7	Increased carbon storage in soils, trees, and vegetation 5063	1 ☐	3 ☐	2 ☐
8	Invasive weed control 5064	1 ☐	3 ☐	2 ☐
	Economic Benefits			
9	Income from sale of products (edibles, timber, etc.) 5065	1 ☐	3 ☐	2 ☐
10	Crops/products for on-farm or personal use 5066	1 ☐	3 ☐	2 ☐
11	Increased crop production/yield 5067	1 ☐	3 ☐	2 ☐
12	Improved crop quality 5068	1 ☐	3 ☐	2 ☐
13	Income diversification from multiple crops/products 5069	1 ☐	3 ☐	2 ☐
14	Improvement of marginal unproductive or unfarmable land 5070	1 ☐	3 ☐	2 ☐
15	Increased water-use efficiency 5071	1 ☐	3 ☐	2 ☐
16	Increased land value 5072	1 ☐	3 ☐	2 ☐
17	Revenue from conservation payments 5073	1 ☐	3 ☐	2 ☐
18	Revenue from hunting leases 5074	1 ☐	3 ☐	2 ☐
19	Timber stand improvement 5075	1 ☐	3 ☐	2 ☐
	Other Benefits			
20	Cultural/family tradition 5076	1 ☐	3 ☐	2 ☐
21	Hunting 5077	1 ☐	3 ☐	2 ☐
22	Recreation (other than hunting) 5078	1 ☐	3 ☐	2 ☐
23	Improved resilience to weather extremes (drought, flood, etc.) 5079	1 ☐	3 ☐	2 ☐
24	Aesthetics/scenic beauty 5080	1 ☐	3 ☐	2 ☐
25	Other benefit(s) - Specify: 5081 _____			

8. Of the forest farming benefits listed above (1 - 25), which 3 are most important to this operation? Enter the 3 corresponding numbers from the table above

Enter Number		
5082	5083	5084
___	___	___

9. In the next five years, will the acreage in forest farming or multi-story cropping for this operation increase, decrease or stay the same? Check one

5085	1 ☐ Increase - Specify reason(s):	5086
	2 ☐ Decrease - Specify reason(s):	5087
	3 ☐ Stay the same	
	4 ☐ Don't Know	

10. Have any of the following been challenges on this operation when establishing or managing the forest farming system?

Number	Potential Challenges	Yes	No	Don't Know
1	Lack of information about establishment 5088	1 ☐	3 ☐	2 ☐
2	Difficulty establishing crops 5089	1 ☐	3 ☐	2 ☐
3	High startup costs 5090	1 ☐	3 ☐	2 ☐
4	Lack of information on management and maintenance 5091	1 ☐	3 ☐	2 ☐
5	Difficulty regrowing trees within an established forest farming system . 5092	1 ☐	3 ☐	2 ☐
6	Expense of maintenance 5093	1 ☐	3 ☐	2 ☐
7	Lack of information on recommended crop species 5094	1 ☐	3 ☐	2 ☐
8	Lack of knowledge among technical assistance providers 5095	1 ☐	3 ☐	2 ☐
9	Lack of examples or demonstration sites 5096	1 ☐	3 ☐	2 ☐
10	Lack of financial assistance 5097	1 ☐	3 ☐	2 ☐
11	Lack of markets for products 5098	1 ☐	3 ☐	2 ☐
12	Adds labor and complexity to management 5099	1 ☐	3 ☐	2 ☐
13	Conflict with farm equipment, practices, or layout 5100	1 ☐	3 ☐	2 ☐
14	Trees and crops compete for space, light, water, and nutrients 5101	1 ☐	3 ☐	2 ☐
15	Wildlife damage to trees and/or understory crops 5102	1 ☐	3 ☐	2 ☐
16	Tree/shrub pests and diseases 5103	1 ☐	3 ☐	2 ☐
17	Theft of forest farming crops 5104	1 ☐	3 ☐	2 ☐
18	Other challenge(s) - Specify: 5105 _____			

11. Of the challenges listed above (1 - 18), which 3 are most significant to this operation? Enter the 3 corresponding numbers from the table above

Enter Number		
5106 _____	5107 _____	5108 _____

Section 6 - General Knowledge

Did you fill out at least one of the previous agroforestry sections in this survey (i.e. for windbreaks, silvopasture, riparian forest buffers, alley cropping and/or forest farming)?

6000 ☐ Yes - I filled out at least one section - Go to item 1, page 23

6001 ☐ No - this operation **never** practiced agroforestry - Go to Section 7, back page

6002 ☐ No - this operation **stopped** using agroforestry since filling out the 2017 Census of Agriculture. Specify which agroforestry practice was stopped and why:

6003 _____

Go to Section 7, back page

6004 ☐ No - this operation uses other forms of agroforestry not specified in this survey. Briefly describe the system:

6005 _____

Go to Section 7, back page

1. Do you use any of the following resources when gathering information about agroforestry?

Number	Information Source	YES	NO
1	Neighboring farmers, non-neighbor farmers or farmer groups 6006	1 ☐	3 ☐
2	Conservation district staff 6007	1 ☐	3 ☐
3	Private forester 6008	1 ☐	3 ☐
4	Agricultural or conservation consultant from a for-profit business 6009	1 ☐	3 ☐
5	Non-profit organization 6010	1 ☐	3 ☐
6	University Cooperative Extension 6011	1 ☐	3 ☐
7	State agricultural, environment or forestry staff 6012	1 ☐	3 ☐
8	Federal agricultural, environment or forestry staff 6013	1 ☐	3 ☐
9	Internet 6014	1 ☐	3 ☐
10	Social media 6015	1 ☐	3 ☐
11	Email/E-newsletter 6016	1 ☐	3 ☐
12	Farming/conservation magazines 6017	1 ☐	3 ☐
13	Books, print newsletters, brochures 6018	1 ☐	3 ☐
14	Peer reviewed scientific journals 6019	1 ☐	3 ☐
15	Have someone visit this operation 6020	1 ☐	3 ☐
16	Visit a different operation (field tour, demonstration site, etc.) 6021	1 ☐	3 ☐
17	Attendance at a conference or workshop 6022	1 ☐	3 ☐
18	Other information source - Specify: 6023 _____		

2. Of the information sources listed above (1 - 18), which 3 are most useful to this operation? Enter the 3 corresponding numbers from the table above

Enter Number		
6024 _____	6025 _____	6026 _____

3. Has this operation used any of the following funding sources to establish, manage and/or support agroforestry practices:

a. Self-funded with own money? 6027 1 ☐ Yes 3 ☐ No

b. Loans from banks or credit unions?..... 6028 1 ☐ Yes 3 ☐ No

c. Loans from private investors? 6029 1 ☐ Yes 3 ☐ No

d. Federal funding (grants, loans, cost share, etc.)?

6030 1 ☐ Yes - Please specify program: 6031 _____
 3 ☐ No

e. State funding (grants, loans, cost share, etc.)?

6032 1 ☐ Yes - Please specify program: 6033 _____
 3 ☐ No

f. Funding from a non-governmental organization?

6034 1 ☐ Yes - Please specify: 6035 _____
 3 ☐ No

g. Other - Please specify: 6036 _____

4. If this operation **sells products** originating from any of its agroforestry systems, please indicate where they have been sold. Only fill in column(s) corresponding to the agroforestry practice(s) this operation utilizes.

Places where agroforestry crops/products have been or will be sold	Products from Windbreak	Products from Silvopasture	Products from Riparian Forest Buffer	Products from Alley/ Intercropping	Products from Forest Farming
a. Food distributor, broker, or processor	6037 ☐	6038 ☐	6039 ☐	6040 ☐	6041 ☐
b. Grain elevator	6042 ☐	6043 ☐	6044 ☐	6045 ☐	6046 ☐
c. Ethanol or biodiesel facility	6047 ☐	6048 ☐	6049 ☐	6050 ☐	6051 ☐
d. Restaurants, grocery stores, or institutions like schools and hospitals	6052 ☐	6053 ☐	6054 ☐	6055 ☐	6056 ☐
e. Food cooperative	6057 ☐	6058 ☐	6059 ☐	6060 ☐	6061 ☐
f. Animal stockyards	6062 ☐	6063 ☐	6064 ☐	6065 ☐	6066 ☐
g. Other farmers	6067 ☐	6068 ☐	6069 ☐	6070 ☐	6071 ☐
h. Farmers' market	6072 ☐	6073 ☐	6074 ☐	6075 ☐	6076 ☐
i. U-pick	6077 ☐	6078 ☐	6079 ☐	6080 ☐	6081 ☐
j. Farm stand or store	6082 ☐	6083 ☐	6084 ☐	6085 ☐	6086 ☐
k. Community Supported Agriculture	6087 ☐	6088 ☐	6089 ☐	6090 ☐	6091 ☐
l. Loggers purchasing standing trees (stumpage)	6092 ☐	6093 ☐	6094 ☐	6095 ☐	6096 ☐
m. Wood products direct-to-mill, wood manufacturer, timber supplier, etc.	6097 ☐	6097 ☐	6099 ☐	6100 ☐	6101 ☐
n. Other: Please Specify: ⁶¹⁰²	6103 ☐	6104 ☐	6105 ☐	6106 ☐	6107 ☐

Section 7 - Conclusion

Contact Information: Operation Email:

Operation Phone:

9937	9936 () -	check if cell phone ☐
------	---------------	---

Respondent Name:

Respondent Phone: (if different from above)

9912	9911 () -	check if cell phone ☐	9910 MM DD YY Date: _ _ _ _
------	---------------	---	--------------------------------

This completes the survey. Thank you for your help.

OFFICE USE ONLY									
Response		Respondent		Mode		Enum.	Eval.	Change	Office Use for POID
1-Comp	9901	1-Op/Mgr	9902	1-PASI (Mail)	9903	9998	9900	9985	9989
2-R		2-Spouse		2-PATI (Tel)					
3-Inac		3-Acct/Bkpr		3-PAPI (Face-to-Face)					
4-Office Hold		4-Partner		6-Email					
5-R – Est		9-Other		7-Fax					
6-Inac – Est				19-Other					
7-Off Hold – Est									
S/E Name									