# Agroforestry

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.

1. Do you have any **windbreaks, shelterbelts or hedgerows** on your property?
* Yes
* No

*If no, please skip to question XX*

1. Please estimate the total miles or feet in windbreak, shelterbelt and/or hedgerow. Include all windbreak types.

\_\_\_\_\_\_\_miles/feet (circle which unit of measurement)

3. Do you use windbreaks, shelterbelts and/or hedgerows for any of the following? *Select yes or no for each item*

Yes No

£ £ Used around buildings (shade, energy savings, etc.)

£ £ Used to provide boundaries around property or certain parts of the property

£ £ Used to manage snow

£ £ Used for natural resources conservation purposes

£ £ Used for visual screening

£ £ Other, please specify:

4. . Were any of the following activities used to establish windbreaks, shelterbelts, and/or hedgerows on your land?

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

5. When were windbreaks, shelterbelts, and/or hedgerows established on your land? Select all that apply

* Less than 5 years ago
* 5 years – less than 10 years ago
* 10 years – less than 15 years ago
* 15 years or more
* Don’t know

6. Have any of the following activities occurred, or will occur, to manage/maintain the windbreaks, shelterbelts, and/or hedgerows on your land?

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

7. Have you sold, or do you plan to sell, any of the following from your windbreak, shelterbelt, or hedgerow? *Select all that apply.*

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Sold in the past 5 years** | **Plant to sell in the next 5 years** | **Use for personal use** |
| Firewood |  |  |  |
| Trees for timber products (lumber, boards, veneer, utility poles, etc.) |  |  |  |
| Trees for non-timber products (pulp, fence posts, woodchips, etc.) |  |  |  |
| Forages/hay/fodder for livestock |  |  |  |
| Edibles (raspberries, walnuts, maple syrup, etc.) |  |  |  |
| Medicinal plants and herbs (American ginseng, goldenseal, etc.) |  |  |  |
| Decorative plants and/or materials for landscaping |  |  |  |
| Other (please specify: |  |  |  |

8. In the next five years, will the acreage of trees and shrubs in windbreaks, shelterbelts, and/or hedgerows on your property increase, decrease or stay about the same? Select one.

* Increase: Specify reason(s):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Decrease: Specify reason(s):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Stay about the same
* Don’t know

9. Which, if any, of the following benefits have you seen on your land from your windbreaks, shelterbelts, and/or hedgerows?

|  |  |  |  |
| --- | --- | --- | --- |
| **Conservation Benefits**  | **YES**  | **NO**  | **DON'T KNOW** |
| Improved erosion control  | 1  | 3  | 2 |
| Improved soil health  | 1  | 3  | 2 |
| Habitat for pollinators and other beneficial insects  | 1  | 3  | 2 |
| Wildlife habitat  | 1  | 3  | 2 |
| Improved water quality  | 1  | 3  | 2 |
| Improved nutrient management  | 1  | 3  | 2 |
| Chemical drift mitigation (pesticide, herbicide, fertilizer)  | 1  | 3  | 2 |
| Dust mitigation  | 1  | 3  | 2 |
| Increased carbon storage in soils, trees, and vegetation  | 1  | 3  | 2 |
| **Economic Benefits** |  |
| Increased crop production/yield  | 1  | 3  | 2 |
| Improved crop quality  | 1  | 3  | 2 |
| Income from windbreak trees/shrubs (firewood, timber, nuts, etc.)  | 1  | 3  | 2 |
| Crops/products for on-farm or personal use from windbreak trees/shrubs (firewood, timber, nuts, etc.)  | 1  | 3  | 2 |
| Improved welfare of livestock  | 1  | 3  | 2 |
| Increased livestock production  | 1  | 3  | 2 |
| Snow management  | 1  | 3  | 2 |
| Protection of buildings, home, and other structures  | 1  | 3  | 2 |
| Income diversification from multiple crops/products  | 1  | 3  | 2 |
| Energy conservation  | 1  | 3  | 2 |
| Increased crop water use efficiency and/or irrigation efficiency  | 1  | 3  | 2 |
| Revenue from hunting leases  | 1  | 3  | 2 |
| Reduced spread of tree diseases (canker, citrus greening, etc.)  | 1  | 3  | 2 |
| Improvement of marginal or unfarmable land  | 1  | 3  | 2 |
| Increased land value  | 1  | 3  | 2 |
| Revenue from conservation payments  | 1  | 3  | 2 |
| Improved resilience to weather extremes (drought, flood, etc.)  | 1  | 3  | 2 |
| **Other Benefits** |  |
| Improved working or living environment from less intense wind  | 1  | 3  | 2 |
| Aesthetics/scenic beauty  | 1  | 3  | 2 |
| Privacy/visual screening  | 1  | 3  | 2 |
| Hunting  | 1  | 3  | 2 |
| Recreation (other than hunting)  | 1  | 3  | 2 |
| Odor reduction  | 1  | 3  | 2 |
| Noise reduction  | 1  | 3  | 2 |
| Other benefit(s) - Specify |

10. Which, if any, of the following challenges have you experienced when establishing or managing windbreaks, shelterbelts, and/or hedgerows?

|  |  |  |  |
| --- | --- | --- | --- |
| **Potential Challenges**  | **YES**  | **NO**  | **DON'T KNOW** |
| Lack of information about establishment  | 1  | 3  | 2 |
| Difficulty establishing trees/shrubs | 1  | 3  | 2 |
| High startup costs  | 1  | 3  | 2 |
| Lack of information on management and maintenance  | 1  | 3  | 2 |
| Difficulty regrowing trees within an established windbreak  | 1  | 3  | 2 |
| Expense of maintenance  | 1  | 3  | 2 |
| Lack of information on recommended tree/shrub species  | 1  | 3  | 2 |
| Lack of knowledge among technical assistance providers  | 1  | 3  | 2 |
| Lack of examples or demonstration sites  | 1  | 3  | 2 |
| Lack of financial assistance  | 1  | 3  | 2 |
| Lack of markets for products from windbreak  | 1  | 3  | 2 |
| Loss of cropland  | 1  | 3  | 2 |
| Harbors harmful crop pests (wildlife, insects, weeds, etc.)  | 1  | 3  | 2 |
| Conflict with farm equipment, practices, or layout  | 1  | 3  | 2 |
| Trees and crops compete for space, light, water, and nutrients  | 1  | 3  | 2 |
| Livestock damage to trees  | 1  | 3  | 2 |
| Wildlife damage to trees  | 1  | 3  | 2 |
| Tree/shrub pests and diseases  | 1  | 3  | 2 |
| Herbicide damaging trees/shrubs  | 1  | 3  | 2 |
| Snow drift issues  | 1  | 3  | 2 |
| Adds labor and complexity to management  | 1  | 3  | 2 |
| Other challenge(s) - Specify: | 1122 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

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.

1. Do you have any land in **riparian forest buffers**?
* Yes
* No

*If no, skip to question XX*

1. Please estimate your total land area in riparian forest buffer(s)

\_\_\_\_\_\_\_miles/feet (circle which unit of measurement)

1. Were any of the following activities used to establish riparian forest buffers on your land?

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

1. When were riparian forest buffers established on your land?

*Select all that apply*

* Less than 5 years ago
* 5 years – less than 10 years ago
* 10 years – less than 15 years ago
* 15 years or more
* Don’t know
1. In the next five years, will the acreage in riparian forest buffer(s) on your property increase, decrease or stay the same?

*Select one.*

* Increase: Specify reason(s):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Decrease: Specify reason(s):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Stay about the same
* Don’t know
1. Have you sold, do you plan to sell, or have you personally used any of the following crops/products originating from riparian forest buffer trees and shrubs. *Select all that apply*

please specify whether this operation has:

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Sold in the past 5 years** | **Plant to sell in the next 5 years** | **Use for personal use** |
| Firewood |  |  |  |
| Trees for timber products (lumber, boards, veneer, utility poles, etc.) |  |  |  |
| Trees for non-timber products (pulp, fence posts, woodchips, etc.) |  |  |  |
| Edibles (raspberries, walnuts, maple syrup, etc.) |  |  |  |
| Medicinal plants and herbs (American ginseng, goldenseal, etc.) |  |  |  |
| Decorative plants and/or materials for landscaping |  |  |  |
| Other (please specify: |  |  |  |

1. Do riparian forest buffers provide any of the following benefits on your land?

|  |  |  |  |
| --- | --- | --- | --- |
| **Conservation Benefits**  | **YES**  | **NO**  | **DON'T KNOW** |
| Improved erosion control  | 1  | 3  | 2 |
| Improved soil health  | 1  | 3  | 2 |
| Habitat for pollinators and other beneficial insects  | 1  | 3  | 2 |
| Wildlife habitat  | 1  | 3  | 2 |
| Improved water quality  | 1  | 3  | 2 |
| Improved nutrient management  | 1  | 3  | 2 |
| Chemical drift mitigation (pesticide, herbicide, fertilizer)  | 1  | 3  | 2 |
| Dust mitigation  | 1  | 3  | 2 |
| Increased carbon storage in soils, trees, and vegetation  | 1  | 3  | 2 |
| **Economic Benefits** |  |
| Increased crop production/yield  | 1  | 3  | 2 |
| Improved crop quality  | 1  | 3  | 2 |
| Income from windbreak trees/shrubs (firewood, timber, nuts, etc.)  | 1  | 3  | 2 |
| Crops/products for on-farm or personal use from windbreak trees/shrubs (firewood, timber, nuts, etc.)  | 1  | 3  | 2 |
| Improved welfare of livestock  | 1  | 3  | 2 |
| Increased livestock production  | 1  | 3  | 2 |
| Snow management  | 1  | 3  | 2 |
| Protection of buildings, home, and other structures  | 1  | 3  | 2 |
| Income diversification from multiple crops/products  | 1  | 3  | 2 |
| Energy conservation  | 1  | 3  | 2 |
| Increased crop water use efficiency and/or irrigation efficiency  | 1  | 3  | 2 |
| Revenue from hunting leases  | 1  | 3  | 2 |
| Reduced spread of tree diseases (canker, citrus greening, etc.)  | 1  | 3  | 2 |
| Improvement of marginal or unfarmable land  | 1  | 3  | 2 |
| Increased land value  | 1  | 3  | 2 |
| Revenue from conservation payments  | 1  | 3  | 2 |
| Improved resilience to weather extremes (drought, flood, etc.)  | 1  | 3  | 2 |
| **Other Benefits** |  |
| Improved working or living environment from less intense wind  | 1  | 3  | 2 |
| Aesthetics/scenic beauty  | 1  | 3  | 2 |
| Privacy/visual screening  | 1  | 3  | 2 |
| Hunting  | 1  | 3  | 2 |
| Recreation (other than hunting)  | 1  | 3  | 2 |
| Odor reduction  | 1  | 3  | 2 |
| Noise reduction  | 1  | 3  | 2 |
| Other benefit(s) - Specify |

1. Which, if any, of the following challenges have you experienced when establishing or managing riparian forest buffers?

|  |  |  |  |
| --- | --- | --- | --- |
| **Potential Challenges**  | **YES**  | **NO**  | **DON'T KNOW** |
| Lack of information about establishment  | 1  | 3  | 2 |
| Difficulty establishing trees/shrubs | 1  | 3  | 2 |
| High startup costs  | 1  | 3  | 2 |
| Lack of information on management and maintenance  | 1  | 3  | 2 |
| Difficulty regrowing trees within an established windbreak  | 1  | 3  | 2 |
| Expense of maintenance  | 1  | 3  | 2 |
| Lack of information on recommended tree/shrub species  | 1  | 3  | 2 |
| Lack of knowledge among technical assistance providers  | 1  | 3  | 2 |
| Lack of examples or demonstration sites  | 1  | 3  | 2 |
| Lack of financial assistance  | 1  | 3  | 2 |
| Lack of markets for products from windbreak  | 1  | 3  | 2 |
| Loss of cropland  | 1  | 3  | 2 |
| Harbors harmful crop pests (wildlife, insects, weeds, etc.)  | 1  | 3  | 2 |
| Conflict with farm equipment, practices, or layout  | 1  | 3  | 2 |
| Trees and crops compete for space, light, water, and nutrients  | 1  | 3  | 2 |
| Livestock damage to trees  | 1  | 3  | 2 |
| Wildlife damage to trees  | 1  | 3  | 2 |
| Tree/shrub pests and diseases  | 1  | 3  | 2 |
| Herbicide damaging trees/shrubs  | 1  | 3  | 2 |
| Snow drift issues  | 1  | 3  | 2 |
| Adds labor and complexity to management  | 1  | 3  | 2 |
| Other challenge(s) - Specify: | 1122 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

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.

1. Does this operation have any land in **forest farming/multi-story cropping**?
* Yes
* No

*If no, please skip to question XX*

Is the forest farming system on your land managed in any of the following ways? *Select yes or no for each item*

Yes No

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

£ £ 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.

£ £ Cultivation in rows and/or clusters of a single crop under the forest canopy. May involve tilling, fertilizing, weeding, and controlling disease and posts. Often includes clearing vegetation in the understory and clearing the overstory.

1. How many acres of land do you have in forest farming/multi-story cropping?

\_\_\_\_\_\_acres

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  | 1  | 3  | 2 |
| Used barrier weed control (mulch, plastic, etc.) to establish crops  | 1  | 3  | 2 |
| Used herbicides for weed control/site preparation  | 1  | 3  | 2 |
| Used fertilizer and/or soil amendments prior to or during establishment  | 1  | 3  | 2 |
| Cleared debris (leaf layer, fallen trees, branches, rocks, etc.)  | 1  | 3  | 2 |
| Removed trees (thinning)  | 1  | 3  | 2 |
| Pruned tree branches  | 1  | 3  | 2 |
| Removed competing understory vegetation  | 1  | 3  | 2 |
| Installed irrigation infrastructure  | 1  | 3  | 2 |
| Installed fencing and/or tree tubes to protect trees/shrubs from livestock/wildlife  | 1  | 3  | 2 |
| Other establishment activities - Specify:  |

1. When were forest farming system(s) established on your land?

*Select all that apply*

* Less than 5 years ago
* 5 years – less than 10 years ago
* 10 years – less than 15 years ago
* 15 years or more
* Don’t know

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.)  | 1  | 3  | 2 |
| Herbicides for weed control  | 1  | 3  | 2 |
| Barrier weed control (mulching/fabric)  | 1  | 3  | 2 |
| Livestock grazing  | 1  | 3  | 2 |
| Prescribed fire  | 1  | 3  | 2 |
| Irrigation  | 1  | 3  | 2 |
| Fertilization and/or soil amendments  | 1  | 3  | 2 |
| Replanting trees  | 1  | 3  | 2 |
| Replanting understory crops  | 1  | 3  | 2 |
| Pruning of tree branches and stems  | 1  | 3  | 2 |
| Pruning of understory branches and stems  | 1  | 3  | 2 |
| Removal of living or dead trees (thinning)  | 1  | 3  | 2 |
| Removal/clearing of understory vegetation, rocks, and forest debris  | 1  | 3  | 2 |
| Fencing or tree tubes to protect trees/crops from wildlife/livestock  | 1  | 3  | 2 |
| Other management activities- Specify: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

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

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Sold in the past 5 years** | **Plant to sell in the next 5 years** | **Use for personal use** |
| Firewood |  |  |  |
| Trees for timber products (lumber, boards, veneer, utility poles, etc.) |  |  |  |
| Trees for non-timber products (pulp, fence posts, woodchips, etc.) |  |  |  |
| Edibles (raspberries, walnuts, maple syrup, etc.) |  |  |  |
| Medicinal plants and herbs (American ginseng, goldenseal, etc.) |  |  |  |
| Decorative plants and/or materials for landscaping |  |  |  |
| Other (please specify: |  |  |  |

7. Does forest farming provide any of the following benefits to your land?

|  |  |  |  |
| --- | --- | --- | --- |
| **Conservation Benefits**  | **YES**  | **NO**  | **DON'T KNOW** |
| Improved erosion control  | 1  | 3  | 2 |
| Improved soil health  | 1  | 3  | 2 |
| Habitat for pollinators and other beneficial insects  | 1  | 3  | 2 |
| Wildlife habitat  | 1  | 3  | 2 |
| Improved water quality  | 1  | 3  | 2 |
| Improved nutrient management  | 1  | 3  | 2 |
| Chemical drift mitigation (pesticide, herbicide, fertilizer)  | 1  | 3  | 2 |
| Dust mitigation  | 1  | 3  | 2 |
| Increased carbon storage in soils, trees, and vegetation  | 1  | 3  | 2 |
| **Economic Benefits** |  |
| Increased crop production/yield  | 1  | 3  | 2 |
| Improved crop quality  | 1  | 3  | 2 |
| Income from windbreak trees/shrubs (firewood, timber, nuts, etc.)  | 1  | 3  | 2 |
| Crops/products for on-farm or personal use from windbreak trees/shrubs (firewood, timber, nuts, etc.)  | 1  | 3  | 2 |
| Improved welfare of livestock  | 1  | 3  | 2 |
| Increased livestock production  | 1  | 3  | 2 |
| Snow management  | 1  | 3  | 2 |
| Protection of buildings, home, and other structures  | 1  | 3  | 2 |
| Income diversification from multiple crops/products  | 1  | 3  | 2 |
| Energy conservation  | 1  | 3  | 2 |
| Increased crop water use efficiency and/or irrigation efficiency  | 1  | 3  | 2 |
| Revenue from hunting leases  | 1  | 3  | 2 |
| Reduced spread of tree diseases (canker, citrus greening, etc.)  | 1  | 3  | 2 |
| Improvement of marginal or unfarmable land  | 1  | 3  | 2 |
| Increased land value  | 1  | 3  | 2 |
| Revenue from conservation payments  | 1  | 3  | 2 |
| Improved resilience to weather extremes (drought, flood, etc.)  | 1  | 3  | 2 |
| **Other Benefits** |  |
| Improved working or living environment from less intense wind  | 1  | 3  | 2 |
| Aesthetics/scenic beauty  | 1  | 3  | 2 |
| Privacy/visual screening  | 1  | 3  | 2 |
| Hunting  | 1  | 3  | 2 |
| Recreation (other than hunting)  | 1  | 3  | 2 |
| Odor reduction  | 1  | 3  | 2 |
| Noise reduction  | 1  | 3  | 2 |
| Other benefit(s) - Specify |

1. In the next five years, will the acreage in forest farming or multi-story cropping on your land increase, decrease or stay the same? Check one

*Select one.*

* Increase: Specify reason(s):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Decrease: Specify reason(s):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Stay about the same
* Don’t know

9. Have any of the following been challenges on your land when establishing or managing the forest farming system?

|  |  |  |  |
| --- | --- | --- | --- |
| **Potential Challenges**  | **YES**  | **NO**  | **DON'T KNOW** |
| Lack of information about establishment  | 1  | 3  | 2 |
| Difficulty establishing trees/shrubs | 1  | 3  | 2 |
| High startup costs  | 1  | 3  | 2 |
| Lack of information on management and maintenance  | 1  | 3  | 2 |
| Difficulty regrowing trees within an established windbreak  | 1  | 3  | 2 |
| Expense of maintenance  | 1  | 3  | 2 |
| Lack of information on recommended tree/shrub species  | 1  | 3  | 2 |
| Lack of knowledge among technical assistance providers  | 1  | 3  | 2 |
| Lack of examples or demonstration sites  | 1  | 3  | 2 |
| Lack of financial assistance  | 1  | 3  | 2 |
| Lack of markets for products from windbreak  | 1  | 3  | 2 |
| Loss of cropland  | 1  | 3  | 2 |
| Harbors harmful crop pests (wildlife, insects, weeds, etc.)  | 1  | 3  | 2 |
| Conflict with farm equipment, practices, or layout  | 1  | 3  | 2 |
| Trees and crops compete for space, light, water, and nutrients  | 1  | 3  | 2 |
| Livestock damage to trees  | 1  | 3  | 2 |
| Wildlife damage to trees  | 1  | 3  | 2 |
| Tree/shrub pests and diseases  | 1  | 3  | 2 |
| Herbicide damaging trees/shrubs  | 1  | 3  | 2 |
| Snow drift issues  | 1  | 3  | 2 |
| Adds labor and complexity to management  | 1  | 3  | 2 |
| Other challenge(s) - Specify: | 1122 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |