

Agroforestry			
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Qualitative Benefits of the Practice	Cost of Implementation and Potential Income Loss	Potential Income Gain and Reduced/Avoided Costs	Your Judgment: Value Per Acre of This Practice on Your Land
<p>Helps landowner and farm operator diversify income sources through sales of nuts, wood, fruit, biofuels, etc.</p> <p>Enhance the productivity of crops and livestock by providing shade and protection from harsh winds (4)</p> <p>Reduce soil erosion due to wind</p> <p>Enhance wildlife habitat</p> <p>Trees capture & store carbon dioxide from the air</p> <p>Improve water quality by trapping sediment and other run-off before it reaches surface waters</p>	<p>Establishment costs for living snow fence (also applicable to buffer strips, windbreaks, shelterbelts, including those used in alley cropping): \$2,260/acre (<i>see Establishment & Maintenance Costs textbox</i>)</p> <p>Range of establishment costs: \$1,500 to \$3,000 (3); or up to \$7,000 for hazelnuts (9)</p> <p>Average yearly costs for first three years of maintenance (establishment phase): \$280/acre/year (<i>see Establishment & Maintenance Costs textbox</i>)</p> <p>Maintenance costs beyond 3rd year: \$24/acre/year for spot spraying (3)</p>	<p>Income from black walnut crop, years 11-60: \$255/year (6)</p> <p>Income from hazelnut crop, years 5-10: \$313/acre/year (261 lbs./acre/year x \$1.20/lb.) (7,8)</p> <p>Net gain of \$240/year in crop income per acre of windbreak (<i>see Yield Gain/Loss from Windbreak text box</i>)</p> <p>\$210/year energy savings for home heating due to windbreak around farm house (<i>see Energy Savings from Windbreaks text box</i>)</p> <p>Cost-sharing for establishment from state or federal agency (such as NRCS or MN-DOT) may cover up to 90% of cost</p> <p>Annual payment for conservation contract with state or federal agency or private organization (varies)</p>	<p>Potential income gain and costs avoided: +</p> <p>Potential income loss and costs to pay: -</p> <p>Your judgment on value to your farm of qualitative benefits: +</p> <p>Value to society or environment: +</p> <p>Add up the total net value per acre per year:</p> <p>Multiply by number of acres devoted to the practice:</p> <p>Multiply by a time frame (5 years? 10 years?)</p> <p>Total value over time:</p>

<p>The numbers in this table are broad estimates, and you should adjust them for your farm's conditions.</p>	<p>Loss of net income from cash crop on the agroforestry acres: \$230/acre/year <i>(See Corn and Soybean Profitability text box in the Crop Rotation section).</i> Reduce this number if planting on less-productive acres.</p> <p>\$30/acre/year cost for the acreage of the windbreak, for extra time and hassle in field operations (tillage, spraying, and harvesting) to maneuver around the area (3)</p> <p>**Note: See “Economic Budgeting for Agroforestry Practices” (6) for a sample budget for black walnut establishment.</p>	<p>MN-DOT estimates \$17 benefit in avoided snow removal and vehicle accident costs for every \$1 invested in living snow fence (3). This is a benefit to society but also to the landowner and/or farm operator if the improved roads are ones they frequently drive. Benefits of reduced drifting could also apply to windbreaks established along driveways and field roads within the farm itself.</p>	
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