

Do You Have Problems With:

- Cold winter winds around the home
- High heating costs
- Drifting snow
- High exterior building maintenance

Farmstead Windbreaks Can Solve These Problems



Purposes and Benefits of Farmstead Windbreaks:

- A well designed windbreak will block driving winds and reduce the wind chill.
- Windbreaks can reduce home heating costs.
- With aesthetics in mind during the designing phase, windbreaks can add value to home and property.
- Windbreaks can also serve as noise, dust, and odor screens.
- Outside building maintenance costs can be reduced by reducing the “sand blasting” effects of the wind.
- Windbreaks can also serve as living snow fences.
- By providing feeding, nesting, and shelter habitat, windbreaks can attract wildlife.
- Tree planting can add variety to the landscape.

Considerations:

The cost to apply this practice will depend on if you are starting with pasture or a stand of trees, the type of trees or forage that will be established, and intensity of management. The major costs associated with establishing a windbreak system are:

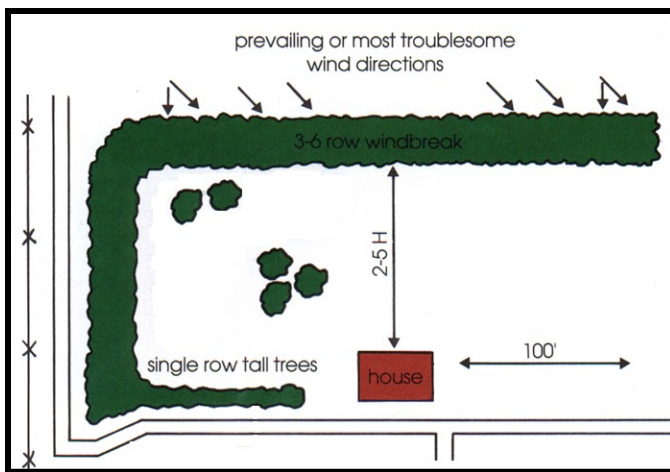
- Site preparation
- Tree seedlings
- Planting
- Herbaceous weed control
- Pesticides
- Irrigation system
- Fencing

Farmstead Windbreaks

How to design and plant trees and shrubs for a windbreak

Step 1—Locate and design the windbreak

The number of rows to plant, the proximity of the planting to the structures being protected, and the type of trees and shrubs used depends on factors such as landowner desires for aesthetics and wildlife, winter winds direction, and the purpose of the windbreak. Generally, a multi-row windbreak of conifers, deciduous trees, and shrubs planted on the north and west side of the area being protected is needed. Locate the windbreak at a distance from the structure or area of 2 to 5 times the anticipated height of the tallest tree in the planting. In areas of heavy snow, increase the distance to 100 to 200 feet. Also, extend the windbreak beyond the protected area.



Step 2—Choose the right species and order the planting stock

When choosing the trees and shrubs to include in a windbreak design, consider not only the factors listed above, but also the species' ability to provide adequate shelter from the wind, their adaptation to the site and soils, hardiness, growth rate, longevity, and maintenance needs.

Figure the number of trees needed by dividing the windbreak length by the distance between trees. Generally between-row spacing is 15 to 20 feet. This can be shortened for shrubs and lengthened for tall conifers. The distance between plants within the row depends on the species and the

purpose of the windbreak. Plantings may be as close as 4 feet for shrubs and as far as 30 feet for tall trees. Ideally, planting stock should be ordered from local sources.



A multi-row windbreak of shrubs, conifers and deciduous trees. Seedlings may be containerized

Step 3—Prepare the site

Site preparation is an important step in establishing a windbreak because it will provide a desirable seed bed for planting the trees, build up soil moisture, and help control perennial weeds and grasses. The basic methods of site preparation are cultivation, mulching, and herbicides. Typically a combination is needed.



Weed barrier fabric used to control weeds and conserve moisture. Cultivation and herbicides are also effective site preparation methods.

Farmstead Windbreaks

How to design and plant trees and shrubs for a windbreak (continued)

Step 4—Plant the trees/shrubs.

Plant as soon after receiving the planting stock as possible. Whether the seedlings are planted with a machine or by hand, it is important to plant them firmly, at the right depth and with their roots fully extended and vertical.



Farmstead Windbreak Maintenance:

- Protect from rodents and browsing animals
- Provide supplemental watering when needed
- Apply follow-up weed control
- Protect from insects and diseases
- Replant as necessary



Step 5

Manage the forage crop to optimize livestock production. Additional thinning will be needed as trees mature. Pruning should be to a minimum of 20 feet.



SMALL SCALE SOLUTIONS FOR YOUR FARM

Technical Help Is Available

Your local Natural Resources Conservation Service (NRCS) office has experienced conservationists that can assist you with an ag chemical handling facility. They can also help you develop a Conservation Plan to solve other problems you have identified on your farm.

There is no charge for our assistance. Simply call your local office at the number listed below to set up an appointment and we will come to your farm.

You may also be eligible to receive financial assistance, through a state or federal program. Your NRCS office will explain any programs that are available so you can make the best decision for your operation. All NRCS programs and services are voluntary.



Helping People Help the Land

For More Information Contact the:

Natural Resources Conservation Service

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