

3.2 Windbreaks for wind erosion

Windbreaks for soil erosion control are usually 1 to 3 rows planted at right angles to prevailing winds. The area protected downwind of a windbreak is a function of the average height and density of the windbreak.

A windbreak protects an area 10 to 15 times the height of the trees. A windbreak density of 40 to 60 percent provides the greatest downwind protection for soil erosion. Choose species foliage and branching characteristics that will achieve the desired density during the critical protection periods.

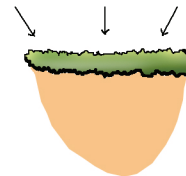
Single row windbreaks offer limited resilience because a single dead tree can leave a gap in the windbreak. Gaps result in increased wind speeds and reduced protection.

Multiple leg windbreaks provide greater protection than single leg windbreaks.

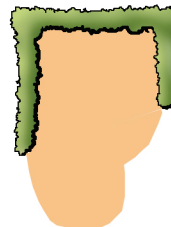
Locate access roads at the end of windbreaks. Extend windbreaks beyond the area being protected.

See sections 4.4, 5.7, and 5.8 for other windbreak functions.

Variable wind direction



Single leg windbreak



Multiple leg windbreak

Protected Area

3.2 References

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