United States National Windbreak Perspective

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Great Plains Windbreak Renovation & Innovation Conference
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International Peace Garden
GOOD MORNING EVERYONE!

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LONG WINDBREAK HISTORY
From 1935 - 1942, the Prairie States Forestry Project planted 18,600 miles of shelterbelts using about 217 million trees.

1930’s Conquest, Saskatchewan project included planting 960 miles of shelterbelts using about 7 million seedlings.
How were they planted?

Conquest, Sask. - 1938
W.R. Johnson, Farmer
1st mechanical tree planter

Bon Homme Co., SD - 1936
Prairie States Forestry Project
Planting Crew
WHAT REMAINS OF YESTERDAY’S LEGACY?
The old shelterbelts served the land well...

But those remaining are struggling to keep working. Can we extend their life as we replant new windbreaks? What is the role of windbreaks in today’s agriculture?
From 1982 to 1992 the overall extent of windbreaks declined.

In the entire United States the decline was about 5%

WHY?
Possible reasons:

- Age of the windbreaks
- Changes in size of fields and equipment
- Changes in attitudes toward windbreaks

Is the trend changing?
ARE WINDBREAKS STILL NEEDED?

PAST

PRESENT
Windbreaks are used in majority of states
WINDBREAKS CAN ADDRESS MANY CROPLAND RESOURCE CONCERNS

- Crop protection
- Crop production
- Snow management
- Wind erosion reduction
- Irrigation efficiency
- Cropping flexibility
- Water quality
MEETING RESOURCE CONCERNS AROUND FARM AND RANCH HOMES

- Protect structures, outside work and play areas
  - Energy
  - Snow
  - Wind damage
  - Dust

- Reduce noise
- Screen unsightly areas
- Enhance aesthetics
- Provide wildlife habitat
Protecting Field Crops

Washington

Nebraska

Indiana

Idaho
Protecting Specialty Crops

Oregon orchards

Michigan flowers

Michigan orchards

New York orchards
Protecting Livestock

Minnesota

Delaware

Nebraska

Kansas
LIVING SNOW FENCES FROM EAST TO WEST

New York

Wyoming

Iowa

Washington
WINDBREAK/SHELTERBELT ESTABLISHMENT

<table>
<thead>
<tr>
<th>Year</th>
<th>Planned Count</th>
<th>Applied Count</th>
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<tbody>
<tr>
<td>2007</td>
<td>6,000</td>
<td>4,500</td>
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<td>2008</td>
<td>5,000</td>
<td>3,500</td>
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<td>2009</td>
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<td>2010</td>
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<tr>
<td>2011</td>
<td>3,500</td>
<td>2,000</td>
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<tr>
<td>2012</td>
<td>3,000</td>
<td>1,500</td>
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WHERE ARE WINDBREAKS APPLIED?

October – July 2012
Established and Renovated

Windbreaks/Shelterbelts
WINDBREAK/SHELTERBELT RENOVATION

![Graph showing the planned and applied count for each year from 2007 to 2012. The graph indicates a general increase in both planned and applied counts, with a peak in 2010 and a slight decrease in 2011.](image-url)
WHERE ARE WINDBREAKS RENOVATED?

October – July 2012

Windbreak/Shelterbelt Renovation
Windbreak Renovation Concentration

October – July 2012
Windbreak/Shelterbelt Renovation
The seven techniques are:

+ Supplemental planting
+ Sod release
+ Coppicing
+ Pruning
+ Thinning
+ Row removal
+ Root pruning
Windbreaks for...many reasons!
More reasons!
WHAT WILL THE FUTURE BRING?

Dust Bowl ~ 1930's

Kansas ~ 1996

Dust Storms ~ 2002

Washington ~ 2004

2012 Drought and Beyond?
PLANTING AND RENOVATING WINDBREAKS CAN MAKE A DIFFERENCE!

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