Shelterbelt Renovation
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Stanley Soil Management Association is a not-for-profit organization founded in 1987 in response to dry conditions that contributed to soil erosion.

The board consists of 6 landowners and representatives from R.M. of Stanley MAFRI and PVCD
• Focus in the area was to plant shelterbelts to address soil erosion
• Over 500 miles of shelterbelts planted since 1987
• In the first 12 years we planted an average of 25 miles per year
• In the past 10 years the planting rate has decreased to about 5 miles per year
• In the early 1990’s landowners were encouraged to remove dead elm shelterbelts and plant new ones
• Green ash and villosa lilac are the most common species for single row shelterbelts
• Field shelterbelts are commonly 40 acres apart
• Most planting is done with a mechanical planter
• Some hand planting is done in gaps
A newly planted shelterbelt.
Shelterbelt Maintenance

• Shelterbelt Maintenance involves tilling with a 7-ft. tiller and Weed Badger

• Spraying is done with either an Enviromist shrouded sprayer or backpack sprayer

• After about 5 years tillage maintenance is no longer required
two weeks after spraying with glyphosate and linuron
Two weeks after spraying with glyphosate
Renovation of shelterbelts in our area includes:

- Thinning
- Side and top shearing
- Coppicing/Pollarding
- Removal
Thinning

- Allows for equipment to operate closer to the shelterbelt
- Allows for porosity in the shelterbelt to facilitate more even snow distribution across the field
- A gap in the bottom reduces wind turbulence
Chainsaw is used to cut the branches

Sometimes the branches are put into a wood chipper and the wood chips are blown back into the shelterbelt row.
Top and Side Shearing

• This is done mostly on caraganas along roadsides

Backhoe with brush cutter attachment used
Coppicing and Pollarding

• Coppicing is often done on willow, caragana, villosa lilac, and some other shrubs

Equipment used:
• Chainsaw
• Brush cutter attached onto backhoe
Removal is the most drastic renovation operation

Methods used:
- Backhoe removes trees and puts onto piles
- Backhoe removes trees and buries them in a trench
Landowners remove shelterbelts for various reasons:

- Equipment needs more room to manoeuvre
- Trees are too gangly, and branches are encroaching onto the field
- Trees are diseased and dying
- There may be a perception that the trees are no longer needed
Shelterbelt considerations in irrigation systems

There are several ways that producers with irrigation still take advantage of the benefits of shelterbelts

- Lateral or travelling gun systems used that do not need to travel over shelterbelts
- Shorter species planted to accommodate irrigation systems to travel over top
- Shelterbelts planted on field margins
Challenges to shelterbelt renovation in our area

- Lack of proper equipment to do the job at a reasonable cost
- Perception that shelterbelts are not necessary
- Lack of government-supported shelterbelt renovation programs