

Silvopasture taking root in Northeast Saskatchewan

Adapted by Allan Foster from an article by Brian Bowman

A group in east central Saskatchewan is exploring a sustainable way to diversify that is good for the land and adds another one or two revenue streams from the same land parcel. Called Parkland Agro-forestry Inc., the group was formed five years ago and currently has about 30 members in an area enclosed by Nipawin, Naicam, Tisdale and Prince Albert.

Silvopasture usually involves pasturing livestock in an area containing tree stands while establishing a forage base within the stand. Under good management the result is three marketable end products – forage, livestock and trees from the same piece of land. Trees and forage areas can be established to take the best advantage of ground water, runoff and prevailing winds to stabilize and regenerate the soil. Once established, these areas can provide shelter, shade and food for livestock. They can also help cut the wind and control runoff to assist adjacent cropped areas.

Marg and Bill Sullivan are Parkland Agro-forestry members. They have a cow calf operation running 48 head of Black Angus on a half section south of Melfort.

“We rotate the cows on four paddocks and have several water sources. We’re pretty efficient,” said Marg Sullivan. Since they can’t afford to reduce their herd to allow a tree plantation, they feel the silvopasture route is their best option because it works with the cows.

In 2000, the Sullivans established a one acre stooling bed and began growing and marketing hybrid poplar cuttings they obtained through Agriculture and Agri-Food Canada’s PFRA Shelterbelt at Indian Head. These cottonwood-poplar hybrids are hardy and well suited to the local environment. They grow straight and fast, and can reach 35 feet and maturity in 15 years.

“You start from an assessment of what you have and then design and implement a management plan,” said Sullivan. “But silvopasture is a new thing for this area. Most information available is based on experiences elsewhere.”

As a result, the Sullivans have developed their management plan based on a template developed by one of Parkland’s members. The template helps interested producers to identify the types of trees on their land, assess marketable volumes and determine reclamation steps necessary. Sullivan says the template was needed because contracting to harvest timber on multi-use lands needs a different model than for large tracts of forest.

“Traditionally, these companies will come in and clear cut the stand. It’s a practice that works well on large, dedicated forestry areas, but it leaves farmland unusable because it has to be cleared and worked.”

The full benefits of silvopasture may only be realized under intensive management of all three components; trees, forage and livestock. If this level of management is not possible then silvopasture should not be considered. The system is most suited to high value, quality timber production systems using long rotations. Similar to traditional pastures, overgrazing in silvopastures can damage trees and the grazing resource and even at proper stocking rates trees may need to be protected from grazing until well established.

Marg Sullivan sees market opportunities for private growers and value added wood product industries. And she extols the benefits of having trees on the land to pull water up from deeper resources, and provide erosion control. “Our soil is so sandy, you would look at it and wonder how we could grow trees there. But these hybrid poplars just take root, even through the drought,” she said. She’s positive about the economic benefits too, especially when producers adopt good management practices.