



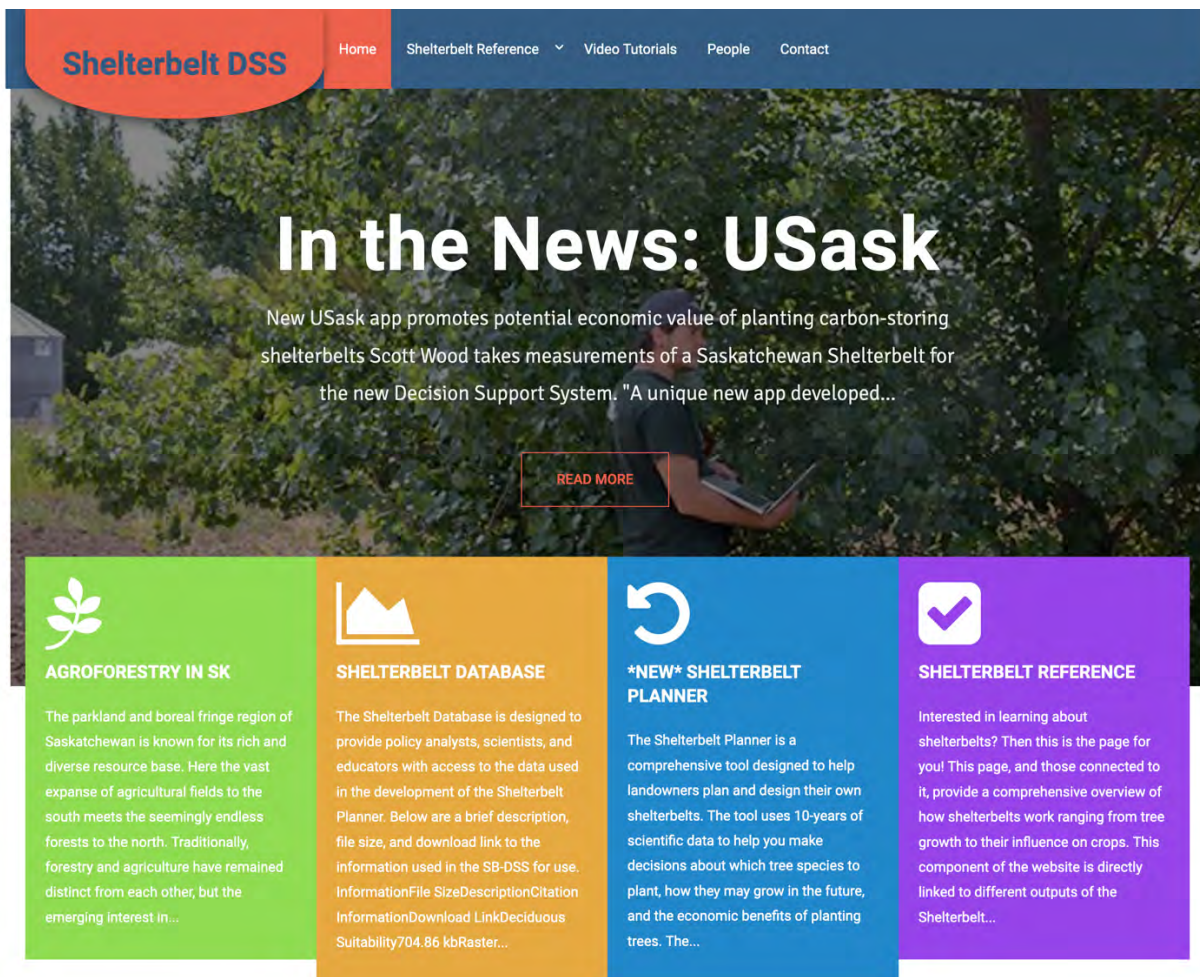
AGGP-Agroforestry

THE SHELTERBELT DECISION SUPPORT SYSTEM: A TOOLKIT FOR SASKATCHEWAN LANDOWNERS

No. SASK-55

by BRYAN MOOD

The Shelterbelt Decision Support System (SB-DSS) is an internet-based decision support toolkit designed to help landowners understand the value of their trees or help make the best decision on a new shelterbelt. The toolkit aims to promote shelterbelts as a sustainable tool for farm-level climate change adaptation and mitigation through greenhouse gas storage. Using a combination of published works, government documents, and landowner input, the SB-DSS provides information for users to plan, plant, and maintain shelterbelts for their needs and showcase the potential economic benefits through carbon sequestration in tree biomass and surrounding soil.



The SB-DSS is accessed through the 'Shelterbelt Planner' on the Shelterbelt Decision Support System website (<http://www.shelterbelt-sk.ca/>). This opens an additional webpage that follows one of two workflows based on the information the user desires

1. The **Shelterbelt Planning Tool** is designed to help landowners and the public understand best practices for planting their trees, how many they will need to order, what other landowners in their area are planting, and the economic benefits of planting a new shelterbelt.

The **Current Shelterbelt Evaluation** workflow allows users, with some on-the-ground work, to approximate the amount of carbon that may be stored in their current shelterbelts on their property based on tree sizes, location, spacing, circumference, age, and mortality.



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Shelterbelt Planning Tool


This tool will help you learn about what other landowners are planting in your region. Based on it, and other information, you can plan a new shelterbelt and find out how helpful it can be for your land.

 Plan now!



Current Shelterbelt Evaluation

Learn about the carbon and economic value of your shelterbelt. You'll need some information to help us tell you the most accurate information but it's worth it!

 Evaluate Your Shelterbelt!

Both SB-DSS core workflows require minimal user input but produce meaningful information for the current or planned shelterbelts. The Shelterbelt Planning Tool will help landowners understand which species will grow best in their area, how many to order, and the best way to plant them to ensure survival and maximum growth. This will provide landowners with a measure of confidence with their decisions. Additionally, it may save unforeseen costs associated with planting maladapted trees in certain regions which may result in purchasing further trees. The Shelterbelt Evaluation Tool will help landowners understand the value of their current shelterbelt trees in terms of carbon storage and economic value.

Landowners continue to remove shelterbelts at an alarming rate in Saskatchewan. While they are seen as a nuisance with large-equipment or obsolete by some landowners, they are a critical drought mitigation tool on agricultural lands throughout Saskatchewan and store significant amounts of carbon. As an impact of climate change, droughts are expected to increase in severity and frequency in southern Saskatchewan and shelterbelts will be more important than ever. Demonstrating their potential economic impacts under expected carbon pricing structures will help users understand the cost-benefit of removing or keeping a shelterbelt into the future.

FURTHER READING

<http://www.shelterbelt-sk.ca/>

CONTACT FOR MORE INFORMATION: SASKAGROFORESTRY.CA/

ACKNOWLEDGEMENTS & COPYRIGHT

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