

Saskatchewan's Rangeland Health Assessment Gets a Reboot

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Range managers, researchers and prairie stewards are continuing to improve their understanding and awareness of the complex grassland ecosystem to maintain and improve the state of native prairie pastures.

In 2008, a group of rangeland experts and professionals, led by Saskatchewan Prairie Conservation Action Plan (SK PCAP), developed the Saskatchewan Rangeland Health Assessment. This standardized range assessment concept, originally developed in Alberta, was designed to provide land owners, resource managers and researchers with a repeatable method of checking the functionality of prairie rangeland.

The rangeland health assessment is a five-point indicator system that looks at the plant community, vegetation structure, invasive weeds, soil stability and litter cover on a site to determine whether the area is functioning at its ecological potential. Assessors can use a range health assessment to pinpoint specific areas of improvement and help inform management practices.

Sixteen years later, as science and research have evolved and made-in-Saskatchewan grassland resources are being developed, range professionals decided to take another look at how the 2008 range assessment tool stacks up. A working group, once again administrated by SK PCAP, is making key updates and improvements to this familiar tool.

Avoid fixing what isn't broken

The updated assessment will continue to walk users through a series of five questions to focus their observations. The foundation

of rangeland health remains the same—observing a prairie grassland site at a current point in time and comparing it to the potential for that site, known as the "reference community."

Determining the reference community for the assessment area is based on soils. It takes practice, but is a critical step. The reference community helps assessors determine if what they are seeing is what they should expect to see. For example, when assessing a sandy range site, assessors would expect to find different plants, bare soil, litter and structure than if they were on a clay range site because each rangeland type has a different potential.

When the original rangeland health assessment was developed in 2008, Saskatchewan had yet to finalize the description of a series of reference communities called Saskatchewan Rangeland Ecosystems – Ecosite Guides.

These valuable resources can be found at pcap-sk.org/for-land-managers/resources and will be incorporated throughout the updated workbook. The revised tool will also address how assessments can be performed even if the reference community is not fully understood.

In the original assessment, Saskatchewan was the first province to adopt a rangeland health score out of 100 points. That proved popular, and since then, Alberta updated their assessment protocol and Manitoba drafted their assessment tool to score out of 100 possible points. While the exact division of points is not yet certain, scoring out of 100 is a nice feature the working group plans to retain.



Field staff, ranchers, and researchers have been using the Saskatchewan Rangeland Health Assessment since 2008. The guide is currently being updated to reflect new information and standards.

Making room for improvements

With the creation and update of rangeland health assessments in Alberta and Manitoba, Saskatchewan's rangeland health reboot is building off the work of their provincial range counterparts.

As an example, this revamp of the health assessment will include scoring that incorporates woody encroachment. Without disturbance to keep them in check, woody species may naturally replace grassland areas, particularly on moister sites. This is called brush or shrub encroachment, and can result in losses in plant community diversity and reduce available forage and grazing capacity. Manitoba effectively addresses this phenomenon in the 2017 Manitoba Range and Pasture Health Assessment Workbook Draft.

The way that invasive weeds and their abundance are considered will also be modified in the updated version to match the other Prairie provinces. In the original 2008 methods, users classified noxious weeds, like leafy spurge, as the same threat level as agronomic invasive forage species such as smooth brome grass. While neither species is welcome on native grassland



The Saskatchewan Range Health Assessment is a five-question form designed to help assessors determine if the rangeland site is functioning to its potential.

sites, they pose different risks to the overall ecological function and will be scored differently in the updated version.

Litter, the amount of standing or dead plant residue on a range site, is another important measure and tells a story of potential water infiltration, erosion prevention, drought-proofing and soil insulation. Sites with too little litter can have soil loss through erosion and decreased overall production, and sites with too much litter can have reduced biodiversity and stifled productivity. A current University of Saskatchewan study analyzing litter accumulation and productivity on Saskatchewan rangelands will be used to inform the scoring for this updated assessment moving forward.

When the workbook was originally developed, there weren't smartphones, Google Earth, or broad public access to digital mapping applications or other cloud-based tools. The updated workbook will aim to provide better insight into how to prepare for an assessment and where to find online information and tools. There will also be updated graphics, a decision tree, and other tables that will be shareable on social media.

Building on the past and being accountable to the future

The working group will test drive the

Are you familiar with Saskatchewan's Range Health Assessment method? What key improvements would you like to see in the reboot? Let us know at pcap@sasktel.net!

updated version this coming summer with the intention to release the new edition in 2025, formally.

For the past 15 years, the Saskatchewan Range Health Assessment has been a go-to assessment method for landowners, students, researchers and other resource managers. With a few practical improvements, the methods will continue to support ranchers, conservation organizations and prairie stewards into the next generation.

Have you seen the 2008 Saskatchewan Range Health Assessment workbook? Find the original version here:



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