

# Tools For Establishing Forages & Reclamation

by Darrell Kroeker



Jim Chramosta (*far right*) & Martin Geertsema (*center*) showed us what we could learn from enhanced air photos & lidar imagery. Please note: Darryl's group did not "get to" come to this station, so this is not discussed in their group's case study.

Our first station was led by **Bill McGill** and **Keith Carroll**, who gave us a quick tutorial on the effect of water movement over different soil textures and under different slope conditions. They demonstrated the effect of these factors with mini erosion plots. The Buchanan ranch field in question has slopes of about 5% with fairly fine soils. We concluded that any re-establishment of forage stands has to be undertaken with care to keep the maximum amount of runoff on the field and not start an erosion problem. Minimum- or zero-tillage seems like an appropriate tool to achieve those objectives.

The third workshop of the Soils, Forages & Water Dynamics Course took place on Saturday, February 7<sup>th</sup> at the Taylor Community Church. Participants were divided into 5 groups with each group using a scenario based on conditions at one of 5 previous workshop locations.

Our collective memories were immediately challenged as we tried to recall shady details! Our group's scenario was based on the Buchanan ranch, location of the October 4, 2014 workshop. Our challenge was to consider how to maintain forage stands under a year of drought. Fortunately for us, Ron Buchanan was part of our group, the "go to guy" for all the hard questions and memory refreshers!



Keith Carroll & Bill McGill led a discussion of erosion factors.



Julie Robinson hosted a stop with nutrient flows & candies.

Our second stop was hosted by **Julie Robinson** who showed us the value and nutrient content of manure as a soil additive, but its management comes with challenges. I think many of us were surprised to learn that the target for winter feeding grounds was 1 acre per cow to achieve appropriate manure distribution. That's a lot of ground to cover to look after a typical 200 to 400 head cow herd! One idea our group came up with to achieve good manure distribution was to use portable shelters to encourage animals to move away from the feeding grounds. On some ranches, the resulting snow compaction could contribute to poor over-winter survival of alfalfa. Ron's experience on their ranch was that they receive sufficient snow fall during the winter that it hasn't been an issue in the past.

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## Tools For Establishing Forages & Reclamation *continued*

Kari Bondaroff's lesson on weed management was very clear; don't introduce weeds onto your ranch! I think many landowners have been a little casual about sourcing seed for forage establishment and sourcing supplemental livestock feed during years when we come up short on supply. With the help of workshops like this, the situation is improving. Kari's second lesson was, if you have weeds, it's important to document the locations. Without a map, you really don't have a reliable way to measure your success at weed control and eradication. Whether the information is kept in a journal or on the tractor log book, don't rely on memory alone.



Kari Bondaroff's lessons on weed management (*left photo*) & Matthias Loeseken demonstrating role of drone technology (*right photo*).



Jim Little (*left*) & Richard Kabzems (*right*) & the role of maps.

Our last work station was led by Jim Little and Richard Kabzems. Old style paper maps were the tool at hand. The Peace region soil erodibility maps indicate that most of the Buchanan ranch was mapped as potential risk 1, the lowest level of soil erosion risk for our region. Land slope and soil type combine to generate the potential risk. However, our experiences at the fall workshop, and certainly Ron's experience on the ranch, lead our group to conclude that we can't ignore proper soil and vegetation management simply because the erosion risk is low. Low risk of erosion does not equal no risk of erosion.

At the end of the day, our heads were full with new information or new perspectives on old information, our stomachs were full of the fine food served up by the caterers, and I think we each went home with a few more management tools in our land management tool box.

At our group's fourth stop, Shaun Grant and Sandra Burton walked us through some examples using the web-based forage species selection tool. A quick lesson on the difference between seed blends based on weight or seed count put everyone in the group on the same page. The take home message; know your seed counts to develop effective blends. Sandra shared some information she had gleaned from a recent conference in which one presenter indicated that most mixed forage stands end up being approximately 40% legume and 60% grass. The lesson; we may as well start out with the same ratio if that's where we end up anyway. Soil information for the Buchanan ranch indicated pH on the low side (somewhat acidic). Imagine our surprise when we selected for acid-tolerant species and came up with only 3 choices: birdsfoot trefoil, reed canary grass and timothy! If the soils are truly acidic, some soil amendments may be needed to expand the selection of viable forages. The forage selection tool not only helps you make appropriate species choices, it educates you along the way as you manipulate parameters.

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