



Steve Williams Grazed Pasture Soil Testing Summary Write-up

- **Rancher Name (can be kept confidential if desired):** Steve Williams
- **Location:** South of Stagecoach
- **Date of Soil Tests:** 5/8/2020
- **Agricultural Use(s)** (e.g. dryland hay, alfalfa, grazing, etc.): Spring grazed pasture
- **Challenges and Conservation Objectives (as presented by producer):** Steve is interested in understanding the current state of his soil and how he can make it better.
- **Summary of Comprehensive Soil Test Results:** Test results showed relatively fertile soils; the soil fertility score integrates nutrient status with the soil health score. This correlates closely with sustainability of crop production. The soil health score was low for the region indicating healthy key biological traits. This is likely a result of the site characteristics and not a big indicator of management. A moderate overall fertility score and a low soil health score indicate a heavy fertilized soil that is not being optimized for biology. SLAN amino-N is 94 ppm and the total N potentially available is 50lb/ac. This indicates sufficient N for a rangeland situation. The Phosphorus storage and Swiss CO₂-Equilibrium P both indicate sufficient P. The soil bulk density is 1.06 which is optimal. Bulk density is affected by geologic parent material, sand, silt and clay. It is influenced by humus and microbe rate. The VAST aggregate stability score is 9 which is low. Aggregate stability depends on amount of sand vs. silt vs. clay as well as organic matter. The organic matter rating is 3.01 which is considered normal. The water-soluble Carbon is optimal and the water-soluble C:N ratio is slightly high. This indicated that the carbon stored in the soil is hard to break down. The ratio of K (Potassium) to Ca + Mg (Calcium and Magnesium) is marginal which is an important score for animal grazing health. Soil pH is 6.26. Most plants are not affected by soil pH unless it is very high or very low.
- **Technical Interpretation by NRCS Relative to Conservation Objectives:** Phosphorus and Potassium are quite high; this is most likely from the soil parent material. Nutrients are not a limiting factor in this field. Increased OM cycling could help to increase the availability of nutrients and increase productivity.



- **Recommended Practices:** It is recommended that grazing on the field be deferred occasionally and the timing of grazing rotated. Currently it is spring grazed every year.
- **Practices Put in Place:** Steve deferred grazing for the 2020 season and plans to rotate the timing of grazing on the field.
- **Follow up:**
 - **Date:**
 - **What is working:**
 - **What is needed:**