Routt County Conservation District

USDA United States Department of Agriculture Natural Resources Conservation Service

Steve Williams Winter Feeding Area 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.): Winter feeding area / Hay field
- **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 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 med-high for the region indicating healthy key biological traits. A high 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 159 ppm and the total N potentially available is 127lb/ac, this indicates the probability that there is sufficient Nitrogen available. The Phosphorus storage and Swiss CO_2-Equilibrium P are above normal. The soil bulk density is .99 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 5.67 which is considered relatively high. The water-soluble Carbon is optimal and the water-soluble C:N ratio is also optimal. This indicated healthy cycling of nutrients. 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 6.17. 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. All other scores are medium or optimal and no limiting

factor has been identified. **There is not an indication of excessive nutrient or salt buildup that could be expected for an overused winter feeding area**.

- **Recommended Practices:** It is recommended that the feeding area be rotated or moved around as much as possible. Snow depth makes this difficult, but Steve is already trying to do this as much as possible.

- **Practices Put in Place:**

- **Follow up:**
    - **Date:**
    - **What is working:**
    - **What is needed:**