

Managed Grazing at Three Meadows

Summer 2021 Report

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Field Conditions

July-September



We had planned to bring the flock over in May, but the pasture is compacted and tired and was lagging perhaps six weeks behind the fields at our farm. We let the upper field rest and brought the sheep in July.

With the drought, we have set larger grazing areas this year. We mowed the north half of the upper field behind the animals at about 5" to prepare for aeration and light harrowing.

Soil Testing & Research Plot

In August we established a test plot to study compaction remedies with researchers from the WSU extension office. This area is marked with pink flags visible from the gate. We sent soil samples to the lab at Soil Test Farm Consultants, Inc. for analysis to set a baseline for the study. The full results are attached, but here are the main findings:

Moderately low N

Nitrogen is on the low side, but application of fertilizer would probably not help much without bringing other nutrients into balance first. pH is slightly acidic, like most island soils.

Low P and K

Phosphorus and potassium appear to be the most limiting factors right now. Sulfur and boron are also low. Application of rock dust could be a low cost, high impact way to help remineralize the soil.

Low-producing

Estimated production values for the field are about half what we'd like to see. Organic matter in the soil is on the low side at 6.5%. Building organic matter takes a lot of time, but managed grazing is one of the only ways to do it without a great deal of expense.

Restoration

Aeration

We aerated the north half of the upper field in early September. The aerator penetrates and torques the soil, loosening compacted areas and opening space for water and plant roots. This is considered light tillage and doesn't disturb the soil structure as discing or plowing would. It's best to do it when grasses are dormant and haven't yet begun fall root growth.

Harrowing

The chain harrow travels behind the aerator and breaks up soil clods and manure piles. In this photo, the harrow is hanging from the tractor forks for transport.

These treatments, repeated annually over the next 2-3 years, should smooth and loosen the soil.





Plant Community

Tansy Ragwort

This invasive species continues to grow in the lower field near the tree line. We pulled some but also found plants with heavy populations of cinnabar moth larvae, which were imported specifically to control tansy ragwort, their only food. We left the caterpillars on some plants to encourage this beneficial insect.

Birdsfoot Trefoil

This yellow-flowered legume is having a great year in island pastures. It thrives under fast, light grazing and recovered quickly in the upper field despite drought conditions. It's a great protein source for the sheep.

Next Steps

We will be removing some of the sheep to our home farm for shearing and breeding prep next week. The rest will remain to graze the lower field through October or possibly into November, depending on fall rains and regrowth.

We are pondering whether to apply lime or rock dust to address some of the mineral deficiencies or see what can be achieved over several years of managed grazing only.

Oak Knoll Farm is participating in the San Juan Island Farm Tours on Sunday, 9/26. We are offering sheep shearing demos, lamb petting, an orchard talk with Nic Coturri of Piquenique Wines, and botanical dye crafts. We'd love to see you there!

