

2015 Pasture Improvement Results: Spanish River Carbonatite

Spanish River Carbonatite (SRC) is mined from a mineral deposit and is used as a soil amendment.

When applied at 1100 kg/ha, SRC did not affect soil pH or nutrient content. It had no impact on forage yields, and cattle did not favour or avoid areas treated with SRC. It also did not affect the mineral content of forages grown in treated fields.

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Boreal Agrominerals Inc. owns the Spanish River Carbonatite (SRC) deposit. SRC is marketed as a soil amendment. It contains 50% calcium carbonite, 25% biotite, 12% apatite, and 13% trace minerals. It is also used as a liming agent.

SRC contains following amounts of trace elements:

Manganese (Mn)	1 200 ppm
Zinc (Zn)	60 ppm
Copper (Cu)	10 ppm
Cobalt (Co)	10 ppm
Molybdenum (Mo)	12 ppm
Boron (B)	40 ppm

Two farm sites were used in this trial. Treatments were SRC applied at a rate of 1100 kg/ha and a control, where no fertilizers or soil amendments were applied. There were 5 replicates per farm. Soil and forage samples were taken during the growing season for analysis. Cobalt was not part of the standard analysis packages and therefore was not included. Molybdenum was not a part of the soil analysis package.

Results

The soil tests indicated liming requirements between 3 and 10 t/ha; it is unsurprising that 1.1 t/ha did not affect soil pH. At the rate applied, SRC had no statistically significant effect on soil phosphorus, potassium, sulphur, Mn, Zn, Cu, or B. It did not affect forage yields at any pre-grazing sampling time or when sampling times were pooled. It did not influence cattle grazing patterns; post-grazing residuals in all paddocks were not significantly different. It also had no effect on the trace mineral levels of the forage grown in areas treated with SRC.

