Grassland set-asides are a conservation practice commonly used to improve soil that has deteriorated due to cultivation. Conventionally, grassland set-asides are implemented for 10 (or more) years to enhance or rebuild soil quality. Due to insecure land tenure and limited farm land in Ladner, British Columbia, removing agricultural land from production and placing it into long term set-asides is unfavorable and in some respects unfeasible. Hence, in this region, grassland set-asides are implemented for one to four years. This study evaluates the effect of a short term (4 years) grassland set-aside on soil aggregate stability, as an indicator of soil quality. The study was conducted at two sites in Ladner from 2015 to 2018. Each site had a grassland set-aside field and an adjacent annual cropping field. The sites were sampled before the grassland set-asides were seeded and 4 years later before removal from the program. One site was considered unproductive when entering the program while the soil at the other site was classified as productive. The site labeled unproductive showed no significant difference in soil aggregate stability between the grassland set-aside and its paired annual crop field. Conversely, the productive site exhibited a significant difference in aggregate stability with an increase in 2-6mm aggregates in the grassland set-aside compared to its paired annual crop field. The findings of this study will be used to inform implementation strategies for stakeholders involved in grassland set-aside programs.

Themes:

Check (highlight) the most applicable theme according to the abstract.

| Innovation and Technology | Health and Wellness | Culture and Society | Sustainability and Conservation |

Comments:

Commented [A1]: Overall the language is clear; it would be useful, in my opinion, to include a sentence explaining what the findings mean (is the 1-4 year set-aside practice OK? Is it less effective than the 10-years one? Or is it impossible to tell? What are the implications of the findings (in lay person terms)?

Commented [A2]:

Commented [A3]: Can you clarify what “the program” refers to?

Commented [A4]: Does this mean productive in the sense of producing crop?

Commented [A5]: What are the implications?