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# Re-vegetating Berms & Fertilizing

## Forage Fact Re-vegetation Series:

This forage fact is one of a series produced as part of the Re-vegetation of Areas Disturbed by Oil & Gas Activities Project. Plots are set up to evaluate which forage species are best, seeding techniques that work and how soil fertility management could be improved. Both replicated research trials and demonstration plots are being conducted at several locations in the B.C. Peace Region.

*“ We have learned so much from our demos and they help us set direction for the next season’s replicated trials.”*  
~Bill Wilson

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## Introduction

This demo plot was used to show the effectiveness of fowl bluegrass and creeping red fescue in re-vegetating berms. Additional questions at this demo were: does doubling the seeding rates or adding fertilizer make a difference to how these two species perform?

## Plot Details

- ◇ 12 – 15 – 77 – 15 – W6 (south of Dawson Creek)
- ◇ Steep north fill slope, sub soil berm
- ◇ Seeded spring 2012



Carmen Schneider fertilizing berms with hand cyclone applicator.



Contractor, Art Seidl, applying seed and fertilizer with quad.



## Plot Layout

The berm was split in half, with the west half seeded to fowl bluegrass and the east half to creeping red fescue. The area with each species was further split into 4 areas with 2 seeding rates x 2 fertilizing rates. The standard seeding rate of 20 lb/ac commonly used by contractors in the industry was chosen. The second seeding rate was double or 40 lb/ac. There was an area with 0 lb/ac of fertilizer and an area with 50 lb/ac of 27-16-8 (a standard recipe used by seeding contractors in the industry.)

Peace River Forage Association  
of British Columbia



Crop	Seeding Rate	Photos	Results
Creeping Red Fescue Regular Seeding Rate	Regular Rate 20 lbs/acre  No Fertilizer		◇ Poor to fair germination on areas without fertilizer. Plants were sparse and short.
	Regular Rate 20 lbs/acre  Plus Fertilizer 27-16-8		◇ Good germination and plant vigor and population on the fertilized area. ◇ The application of fertilizer generally resulted in a low to acceptable plant population.
Creeping Red Fescue Double Seeding Rate	Double Rate 40 lbs/acre  No Fertilizer		◇ Generally poor germination for both regular and double seeding rates.
	Double Rate 40 lbs/acre  Plus Fertilizer 27-16-8		◇ No visible difference in plant population between regular and double seeding. ◇ Good germination, plant vigor and population on the fertilized area, but not much difference was noticeable in the areas with double seeding rate.
Fowl Blue Grass Regular Seeding Rate	Regular Rate 20 lbs/acre  No Fertilizer		◇ Almost no germination on the fowl bluegrass except for the odd plant.
	Regular Rate 20 lbs/acre  Plus Fertilizer 27-16-8		◇ The application of fertilizer did not produce a noticeable improvement in plant population or vigor.
Fowl Blue Grass Double Seeding Rate	Double Rate 40 lbs/acre  No Fertilizer		◇ Very poor germination for both regular and double seeding rates.
	Double Rate 40 lbs/acre  Plus Fertilizer 27-16-8		◇ The application of fertilizer did not significantly improve plant population or vigor with either seeding rate.

## Where to from here?

The fowl bluegrass in this demonstration showed very little to no germination. However, other demo plots in 2013 showed that fowl bluegrass yielded higher germination and production in a moisture rich environment. Improved re-vegetation with fertilization in this demo led the research team to explore in 2014 what happens if fertilizer is applied at the recommended rate, according to soil testing, rather than a standard recipe rate.



Agriculture and Agri-Food Canada

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