

# POST-HARVEST MANAGEMENT OF CREEPING RED FESCUE CPCS AGRICULTURAL RESEARCH UPDATE

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## Introduction

Producers seem to be divided between two strategies of how to deal with fescue in between production years. Some producers will mow the crop after the first seed production year with the goal of helping the residue to break down and to promote the formation of tillers for the second seed crop. Other producers look at the fescue as a source of livestock feed for grazing while others do nothing at all. What is the effect of either of these two practices on the seed yield of the subsequent crop?

## Plot History

### **2003 Activities**

- previous crop canola (2002)
- May 21<sup>st</sup> apply burnoff of 0.5 l/ac Roundup Transorb with 280 ml/ac MCPA using a water volume of 5 gal/ac
- May 24<sup>th</sup> seed fescue using a Haybuster 8000 zero till hoe drill with 10" spacing, seed certified Boreal fescue at 3lb/ac 0.25" deep, fertility program deep banded at the time of seeding 27-4-0-7.
- in-crop herbicide program consisted of the recommended rate of Prestige using a water volume of 5 gal/ac on August 4<sup>th</sup>.
- fall fertility program consisted of broadcasting 70 lb/ac of N on October 21<sup>st</sup>.
- the fescue was mowed in the fall

### **2004 Activities**

- an incrop herbicide application was made on June 3 consisting of Refine Extra (8 g/ac), Prestige A (fluroxypyr) at 240 ml/ac and Venture at 533 ml/ac. The fescue was at the shot blade stage.
- the fescue was swathed on July 28<sup>th</sup> and combined on August 11<sup>th</sup>. The yield was approximately 400 lb/ac.



Above: From April 2005, the Check on the LHS and the Grazed on the RHS, the Grazing is much greener than the Check.



Above: From April 2005, the Mowed on the LHS and the Check on the RHS. Mowing is greener than the Check.

At this point the preparations were made for the field trial. Plot size was approximately 0.5 ac each. The plot consisted of a randomized complete block design with four replicates used.

Three treatments were used:

- 1) Check – no post harvest management.

2) Mowing – a single pass with a 26' Schulte mower was made on November 4<sup>th</sup>.

3) Grazing – 5 mature cows were used. They remained on the strips for 5 days. Grazing started on December 19<sup>th</sup>. The same group of cows were used to graze all four grazing strips (this occurred over a consecutive 20 day period).

The area grazed provided 50 cow grazing days per acre (5 cows \* 5 days / 0.5 acres).

## 2005 Activities

Observations made in April found that the grazing treatment had a number of patches where fescue growth was poor. It was determined that these areas were where cattle had bedded down while grazing. The mowing treatments were the first to show signs of growth. The Check treatment

retained all of the post harvest regrowth and was slow to grow.

An incrop herbicide application was made on June 8<sup>th</sup> consisting of the recommended rates of Refine Extra, Fluroxopyr and Venture using a water volume of 5 gal/ac. The plots were swathed on August 3<sup>rd</sup> and combined on August 24<sup>th</sup>. results are given in Table 1.

## Results

Both the Check and Mowed treatments had a significantly higher yield than the Grazing treatment. There were no significant differences between the yield of the Check and Mowed treatments. There were no significant differences in the % Dockage and % Moisture content among the three treatments.

**Table 1 Results From Post-Harvest Fescue Management Trial 2005**

Treatment	Yield lb/ac*	% Dockage*	% Moisture*
Check	704a	19.8a	13.3a
Mowed	726a	17.8a	13.0a
Grazed	680 b	17.8a	13.3a
	P=0.001, C.V.=1.2%	P=0.36, C.V.=11.4%	P=0.38, C.V.=2.2%

\*values followed by the same letter within a column are not significantly different at P=0.05

## Conclusions

We were disappointed that there was not a greater benefit to the Mowed treatment compared to the Check and Grazed. Other trials conducted by Yoder (see Table 2) have shown positive yield responses after fall mowing. Work (results not shown) conducted by AAFC Beaverlodge also reported fall grazing reduced fescue seed yields by 8 to 16% (depending on grazing intensity) that supports this trial.

**Table 2 Yield Results From Post-Harvest Mowing of Fescue**

Site	Nampa (2004)	Falher (2003)
Check lb/ac	370a	367a
Mowed lb/ac	420a	523 b
CV	5.7%	16.7%
LSD	82	132

The Grazed treatment did result in the lowest yield. However, ownership of the cattle is an important factor to consider. If the fescue

owner is also the cattle owner, grazing fescue may make more sense. You are using a feed source that is on hand as well as avoiding manure management issues since the manure will be applied to the field. There is value in keeping your livestock in the fields as long as possible. If you do not own the livestock, charging a fee to recover the lost seed yield by allowing cattle to graze on your fescue should be considered.

Mowing did produce a higher seed yield compared to the Grazed but was not significantly higher than the Check. Mowing costs were considered to be \$9.71/ac in 2005 (Alberta Agriculture's Costs Guide, Agdex 825-1). This is a significant cost that producers need to remember when considering field operations.

**Our thanks to Brett Young and the Peace Region Forage Seed Association for their support with this trial.**

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