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Ground to cover

- Canadian Background
- Grazing Impact
- Native vs
 Introduced
- Production
- Disturbance/Diversification
- Summary







Gauthier et al 2002

Prairie Ecozones (courtesy of AESB 2010)







Time of grazing



Multiple Species Advantage (kg/ha)







Diversification



Sodseeding of Alfalfa



Maintenance of groundcover

Treatment	Two year average of alfalfa dry matter yield (g/m)
No Disturbance	0c
Glyphosate, double disk seeder	68a
5 Rows with 15cm undercut	6b
3 rows with 15 cm undercut	13b
3 rows with 35 cm undercut	25b
Standard Error	6

Replacement of Crested Whatgrass







Disturbance Effect

Disturbance	Swift Current Biomass (kg/ha)	Grasslands National Park Biomass (kg/ha)
None	0	0
Glyphosate	76.1	39.3
Diquat	0	0
Burn	0	0
Graze	0	0
Burn + Graze	0	0

Species Selection

Species	Swift Current (kg/ha)	Grasslands National Park (kg/ha)
	2000 (3yr)	2001 (1yr)
Western Wheatgrass	28.0a	5.0
Northern Wheatgrass	10.0b	4.9
Prairie Sand Reed	0.0c	9.8

Summary



- Diversification of stands increases
 productivity
- Diversification of crested
 wheatgrass requires decrease in its
 competitive ability
- Work in Saskatchewan has found application of glyphosate, prior to seeding, yields the best results
- Minimizing disturbance of the soil cover preserves soil moisture and improves establishment
- Legumes has proven to be the easiest to establish
- Species for inclusion in diversification of crested wheatgrass needs additional research



Canada



Multiple Species Advantage

(g/pot)



Schellenberg and Banerjee 2002

