BRUCE

Birdsfoot Trefoil

Experimental designation NB 90-109

Birdsfoot Trefoil Cultivar Trials, 2009 Ithaca, Thompkins Co.

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http://plbrgen.cals.cornell.edu/cals/pbg/programs/departmental/forage/foragetest.cfm

T/A = tons per acre dry matter; 5%LSD = to claim statistically significant yield differences between two cultivars, the yield difference must be equal to or greater than the LSD

		2009			2010			2011	
Cultivar	Marketing Co.	26-Aug	% of Norcen	% Stand 9-Nov	Total Season	% of Norcen	Total Season	% of Norcen	% stand 24-Oct
		T/A			T/A		T/A		
BRUCE	Semican	2.70	151	95	4.55	143	4.25	114	48
WITT	Public Check	2.45	137	92	3.91	123	3.84	103	42
PARDEE	Seedway/FGS/Growmark	2.42	135	94	4.55	143	4.37	118	50
AC LANGILE	Public Check	2.23	125	94	3.81	120	4.17	112	38
NORCEN	Public Check	1.79	100	95	3.17	100	3.72	100	40
LSD (0.05)		0.19			0.31		0.19		14

Birdsfoot Trefoil Regional Trial (1997 seedling)

Dry Matter Yield, t/ha, The NBDAFA/SCIA trial was seeded in 1999 – this is the first of DM data from this site.

Cultivar	*Nappan*	*Charlottetown*			*Truro*		*NBAFA*	*Mean*
	1998	1998	1999	2000	1998	1999	2000	
NB90-109 (BRUCE)	8.61	11.18	9.37	7.53	10.6	5.37	8.98	8.80
LEO	8.02	10.96	9.13	7.38	10.05	5.22	7.91	8.38

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This is Ag Canada's newest release of trefoil from Dr. Papadopoulo's world class breeding program. This cultivar has been selected for vigorous seedling growth characteristics and for superior winter hardiness over previous North American cultivars. This has been borne out by Cornell University, New York State trials where BRUCE out yielded the check variety, NORCEN, by 51% (5% LCD) in 2009 in its seedling year. Persistence issues have been addressed in this new cultivar as borne out in the trial data.

The cultivar, Bruce, came out on top on forage yields for all winter hardy cultivars in 2010 and 2011, out yielding the public variety Norcen by 28 % in the first two years in the State trial.

In multi- site Eastern Canadian Trials, Bruce out yielded Leo by 1.07 t/ Ha (13.5 % increase) in the Provinces of New Brunswick and the mean Nova Scotia / New Brunswick data shows a 0.42 t/ Ha increase over Leo in the 1998 – 2000 harvest data.

Seedling vigour is a very important trait as stockmen need to experience continued success in all environmental conditions for long term market acceptance for the variety and indeed the species, Lotus corniculatus.

With environmental groups and governments focusing on the carbon footprint of each type of animal practice, we know that birdsfoot trefoil with it's high amount of condensed tannins will lower ruminant greenhouse gasses and increase by-pass protein, making the species invaluable in our fight against climate change.

Regenerative agriculture agronomists are also interested in the species for soil building capacity and general soil health. Trefoil has deep fibrous roots that sheds fine roots and releases secondary metabolites that can improve microbial communities. The symbiotic fixing of nitrogen with proper inoculation is important as well, increasing grass yields with no additional fertilization.