



## Red Clover

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Varietal Trials Results, January 2006



Red clover can be seeded in pure stands or with grasses for grazing, hay or silage. It is more easily established in pasture renovation than either alfalfa or trefoil.

Historically, winterhardy varieties of red clover have not persisted beyond two crop years in Minnesota because they are susceptible to diseases and winter kill. However, most of the improved varieties currently sold for use in Minnesota can persist for three years if there is good winter snow cover.

Experimental varietal trial plots were established at Grand Rapids in 1998, 1999 and 2001 and at Rosemount in 1996, 1999 and 2002.

Harvest frequency is generally three times per year. Winter injury in 2003-2004 at Rosemount was quite severe, with all varieties injured to some degree. Varietal differences were observed; ratings in the table should give some indication as to winterhardiness in the second production year.

Another benefit of red clover is its resistance to potato leafhopper injury. Nonetheless, in 2003 a severe infestation at Rosemount resulted in injury to some varieties. Scarlett and Marathon had very little injury whereas Freedom and Arlington had severe chlorosis from the feeding insects.

**Dry matter yield, in tons per acre, of red clover varieties seeded at two locations.\***

Variety	Potato Leafhopper Injury** 07/14/03	Winter Injury*** 05/24/04	Rosemount			Grand Rapids		
			1997- 1998	2000	2003	1999- 2001	2000- 2001	2003- 2004
Arlington	3.5	6.5	4.1	5.2	3.6	2.9	3.0	1.2
Astred	—	—	2.8	—	—	—	—	—
Cinnamon	—	—	4.5	—	—	—	—	—
Cinnamon Plus	2.3	7.5	—	—	4.2	—	—	1.3
Freedom	4.8	8.5	—	5.5	3.7	—	3.2	1.2
Juliette (mcc176)	3	6.3	—	5.6	4.0	3.5	3.3	1.3
Marathon	1.5	5	4.0	5.6	4.3	3.4	3.2	1.4
Prima	—	—	—	5.3	—	3.4	3.5	—
Randolph	—	—	4.1	—	—	3.5	—	—
Redland III	—	—	—	—	—	—	—	—
Redlan Grazell	1.3	8	—	—	4.3	—	—	1.5
Redstar	—	—	—	5.9	—	—	3.4	—
Scarlett	1.3	5.3	4.2	—	4.0	3.4	—	1.4
LSD 5%	0.9	1.4	0.6	0.6	0.3	0.2	0.3	0.2

\* Data in the table are the most recent available.

\*\* Potato leafhopper injury from Rosemount, 5 = worst

\*\*\* Winter injury, Rosemount; 1 = no injury; 9 = dead.

***Red Clover Planting Rate and Date***

Bushel Weight, Pounds	65
Seeds/Pound	272,000
Planting Rate, Pounds/Acre	
Alone	9
In Mixtures	5
Planting Rate, Seeds/Sq. Ft.	
Alone	50
In Mixtures	30
Planting Date	
Alone	Early Spring to September 1
In Mixtures	Use Date for Legume