

# RED CLOVER

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 moderate to 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 leaf-hopper injury. In 2003 a severe infestation at Rosemount resulted in injury to some varieties. Scarlett and Marathon had very little injury; Freedom and Arlington had severe chlorosis from the feeding insects.

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

Variety	Seedlot	Potato*		Rosemount			Grand Rapids		
		Leafhopper Injury	Winter Injury**	1997-98	2000	2003	1999-01	2000-01	2003-04
		7/14/03	5/24/04						
Arlington	3413	3.5	6.5	4.1	5.2	3.6	2.9	3.0	1.2
Astred	2985	—	—	2.8	—	—	—	—	—
Cinnamon	3001	—	—	4.5	—	—	—	—	—
Cinnamon Plus	3454	2.3	7.5	—	—	4.2	—	—	1.3
Freedom	3412	4.8	8.5	—	5.5	3.7	—	3.2	1.2
Juliette(mcc176)	3230	3	6.3	—	5.6	4.0	3.5	3.3	1.3
Marathon	3229	1.5	5	4.0	5.6	4.3	3.4	3.2	1.4
Prima	3223	—	—	—	5.3	—	3.4	3.5	—
Randolph	3002	—	—	4.1	—	—	3.5	—	—
Redland III	3008	—	—	—	—	—	—	—	—
Redlan Grazell	3398	1.3	8	—	—	4.3	—	—	1.5
Redstar	2829	—	—	—	5.9	—	—	3.4	—
Scarlett	3450	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

\*Potato leafhopper injury are from Rosemount, 5 = worst \*\*Winter Injury; 1 = none, 9 = all 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