

## Red Clover

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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, 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 1999, 2002 and 2006, and at Rosemount in 1999, 2002, 2005 and 2006. Harvest frequency generally is three times per year.

Winter injury at Rosemount was quite severe in 2003-04 and 2007-08. Varietal differences were observed in 2004. Ratings in the summary table may give some indication as to winterhardiness in the second or third production year.

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

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

Bushel Weight, Pounds.....	60
Seeds/Pound.....	272,000
Planting Rate, Pounds/Acre	
Alone.....	9
In Mixtures.....	5
Planting Rate, Seeds/Sq. Ft.	
Alone.....	55
In Mixtures.....	30
Planting Date	
Alone.....	Early Spring to September 1

### **Tons per acre dry matter, leafhopper injury and winter injury on red clover varieties seeded at 2 locations.**

Variety	Potato* Leafhopper Injury 7/14/2003	Winter Injury** 5/24/2004	Rosemount				Grand Rapids		
			2000	2003	2006-07	2007	2000-01	2003-04	2007-09
			Arlington	3.5	6.5	5.2	3.6	4.3	3.7
Cinnamon Plus	2.3	7.5	—	4.2	4.8	4.3	—	1.3	3.5
Freedom	4.8	8.5	5.5	3.7	—	—	3.2	1.2	—
Juliette	3	6.3	5.6	4.0	—	—	3.3	1.3	—
Marathon	1.5	5	5.6	4.3	4.4	4.2	3.2	1.4	3.4
Prima	—	—	5.3	—	—	—	3.5	—	—
Redlan Graze II	1.3	8	—	4.3	—	4.4	—	1.5	—
Redstar	—	—	5.9	—	—	—	3.4	—	—
Scarlett	1.3	5.3	—	4.0	4.7	4.3	—	1.4	3.7
LSD 5%	0.9	1.4	0.6	0.3	0.6	0.4	0.3	0.2	0.4

\* Potato leafhopper injury at Rosemount; 1 = none, 5 = worst.

\*\* Winter Injury; 1 = none, 9 = all dead.