



## Red Clover

N.J. Ehlke and D.J. Vellekson  
Varietal Trials Results, January 2007



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, the winterhardy varieties of red clover have not persisted beyond two crop years in Minnesota because they are susceptible to diseases and winterkill. 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, 2002 and 2005. Harvest frequency is generally three times per year.

Winter injury at Rosemount was quite severe in 2003-04, with all varieties injured to some degree. Varietal differences were observed; ratings in the table below give some indication as to winterhardiness in the second 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.....	65
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
In Mixtures.....	Use Date for Legume

### **Dry matter yield of red clover, in tons dry matter per acre, seeded at 2 locations.**

Variety	Potato*	W. Injury**	Rosemount				Grand Rapids		
	Leafhopper Injury 7/14/2003		5/24/04	1997-98	2000	2003	2006	1999-01	2000-01
Arlington	3.5	6.5	4.1	5.2	3.6	5.2	2.9	3.0	1.2
Astred	—	—	2.8	—	—	—	—	—	—
Cinnamon	—	—	4.5	—	—	—	—	—	—
Cinnamon Plus	2.3	7.5	—	—	4.2	5.8	—	—	1.3
Freedom	4.8	8.5	—	5.5	3.7	—	—	3.2	1.2
Juliette	3	6.3	—	5.6	4.0	—	3.5	3.3	1.3
Marathon	1.5	5.0	4.0	5.6	4.3	5.2	3.4	3.2	1.4
Prima	—	—	—	5.3	—	—	3.4	3.5	—
Randolph	—	—	4.1	—	—	—	3.5	—	—
Redland III	—	—	—	—	—	—	—	—	—
Redlan Grazell	1.3	8.0	—	—	4.3	—	—	—	1.5
Redstar	—	—	—	5.9	—	—	—	3.4	—
Scarlett	1.3	5.3	4.2	—	4.0	5.6	3.4	—	1.4
LSD 5%	0.9	1.4	0.6	0.6	0.3	NS	0.2	0.3	0.2

\*Potato leafhopper injury-Rosemount, 5=worst.

\*\*Winter injury; 1=none; 9=all dead.