



May 1986

AGRONOMY TECHNICAL NOTE NO. 100

William E. Reinsch

Conservation Agronomist

CICER MILKVETCH

Cicer milkvetch (*Astragalus Cicer*) is a perennial legume with potential for dryland and irrigated pastures in Nebraska. A 30-acre field of Lutana cicer milkvetch was planted with seed provided by the SCS plant material centers in the spring of 1979 on the Gary Weinrich farm, Knox County, Nebraska. The vetch planting was on Crofton-Nora silt loam, Class IVE soil with a mean annual moisture of 22.15 inches and average growing degree days of 3284. This pasture was grazed in a planned grazing system with a switchgrass pasture and Indiangrass pasture.

A series of 15' x 15' plots were set up in each pasture to do clippings and fertilizer studying. The plots were clipped at 3-inch, 5-inch, and 7-inch stubble heights at appropriate grazing intervals. P_2O_5 at 0, 40 lbs. and 80 lbs. per acre was added as different phosphorus rates along with three clipping heights.

1982 CLIPPING DATA

Clipped Height Inches	Pounds Per Acre Production Dry Weight												
	1st Clipping 6/8/82			2nd Clipping 8/5/82			3rd Clipping 10/5/82			Total - 3 Clippings Year Prod. Per Acre			
	Ck	40#P	80#P	Ck	40#P	80#P	Ck	40#P	80#P	Ck	40#P	80#P	AV
3	3825	4975	4400	2950	3725	3475	1925	1400	1850	8700	10100	9725	9508
5	3225	3650	3100	4400	4100	4025	3300	3425	3525	10925	11175	10650	10917
7	1975	2525	3125	3125	2975	4300	2950	2550	3400	8050	8150	10825	9008

1984 CLIPPING DATA

Clipped Height Inches	Pounds Per Acre Production Dry Weight												
	1st Clipping 5/17/84			2nd Clipping 7/5/84			3rd Clipping 9/11/84			Total - 3 Clippings Year Prod. Per Acre			
	Ck	40#P	80#P	Ck	40#P	80#P	Ck	40#P	80#P	Ck	40#P	80#P	AV
3	1640	1520	2060	3460	3400	2060	6840	4140	2180	11940	9060	6300	9100
5	1260	940	1200	4100	4040	4040	7620	2460	2320	12980	7440	7560	9327
7	1020	1020	1300	3260	3220	3520	6160	1880	1740	10440	6120	6560	7707

Weed problems on plots that received P_2O_5 .

1985 CLIPPING DATA

Clipped Height Inches	Pounds Per Acre Production Dry Weight					
	1st Clipping <u>1/</u> 6/21/85		2nd Clipping <u>1/</u> 8/2/85		Yearly Production 2 Clippings	
	Ck		Ck		Ck	
3	2300		1680		3980	
5	1660		1960		3620	
7	1200		1340		2540	

1/ Fertilizer was discontinued due to weed growth in 1984. Vetch was stunted which reduced yields.

The grazing trial in 1982 showed the following results. The 30 acres of Lutana vetch pasture were fenced into 2 units north and south. The switchgrass and Indiangrass pastures were not cross-fenced. The 2 native grass pastures were not utilized to their potential in 1982.

WEINRICH - GRAZING SEQUENCE - 1982

60 Cow-Calf Pairs

Turn In Date	Turn Out Date	Field	Acres	AUM's/acre grazing
June 1	June 15	Milkvetch (South Pasture)	15	2.0
June 16	June 30	Milkvetch (North Pasture)	15	2.0
July 1	July 30	Switchgrass <u>1</u> /	47	1.3
Aug. 1	Aug. 10	Milkvetch (South Pasture)	15	1.4
Aug. 11	Aug. 20	Milkvetch (North Pasture)	15	1.4
Aug. 20	Sep. 20	Indiangrass <u>1</u> /	47	1.3
Sep. 21	Sep. 30	Milkvetch (South Pasture)	15	1.4
Oct. 1	Oct. 10	Milkvetch (North Pasture)	15	1.4
Oct. 10	Nov. 10	Switchgrass & Indiangrass (to clean up)	94	.6
			Totals	4.8
				4.8
				1.9
				1.9

M.V. M.V. Swi. Ind.
(S.pas) (N.pas)

1/ Switchgrass and Indiangrass pastures were not used to their potential

SUMMARY

Cicer milkvetch can be used as a non-bloating forage plant in a planned grazing system to supply high quality forage during late May, June, August, September and October. It is best adapted to a soil moisture range between 18 and 35 inches annually. The plant performs well on subirrigated sites where ground water is within 3 feet of the surface. It also exhibited good drought tolerance on the Crofton-Nora soils in Knox County, Nebraska. Grazing height for maximum production is about 5 inches. Grazing interval or regrowth time should be 45 to 60 days.