ALFALFA INTERSEEDING FURROW WIDTH TECHNIQUES TRIAL II

This trial was designed to evaluate alfalfa interseeding into rangeland with different widths of the furrow openings. The intended purpose of the data will be primarily to assist in the determination of a recommended furrow width for alfalfa interseeding into rangeland for pasture use in western North Dakota.

These plots were established on 0.70 acres located on the SE¼, SW¼, SE¼ Sec. 22, T. 143 N., R. 96 W. at the ranch headquarters of the Dickinson Experiment Station. The 20 x 50 foot plots were arranged in a randomized block design with three replications. The soil was Shambo loam. The range site was silty. Anik, Kane, Rangelander and Travois alfalfa was seeded at a rate of 0.50 lbs. PLS/row/acre on 11 April 1985. A ten foot row spacing was used. Furrows were opened using 2 inch spikes, 3,4 and 6 inch twisted chisel plow shovels, 6,12 and 16 inch cultivator sweeps behind tandom coulter spaced 3 inches apart and a 14 inch lister plow spaced 3 feet apart. The lister seeding rate was about 1.5 lbs. PLS/row/acre which was about three times greater than the other treatments. A control plot of no interseeding was included in each replication.

The data that were collected from these plots were monthly alfalfa plant counts per meter of row and alfalfa plant heights.

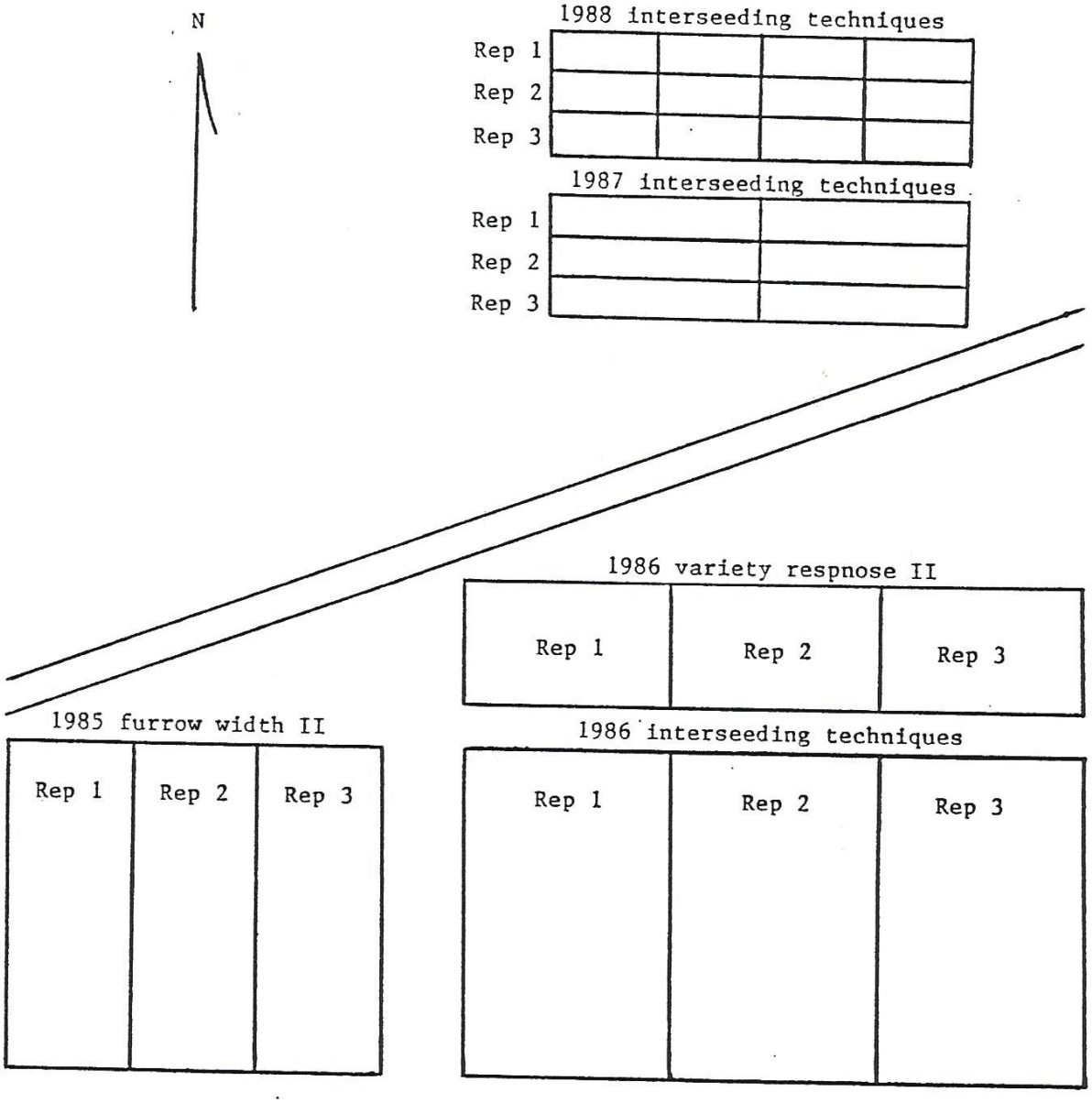

Figure 3. Map diagram of the alfalfa interseeding technique trials located in pasture 4 at the Ranch Headquarters of the Dickinson Experiment Station.

Alfalfa Interseeding Furrow Width Techniques Trial II

Location:	Dickinson Experiment Station Ranch Headquarters SE¼, SW¼, SE¼ Sec. 22, T. 143 N., R. 96 W.
Replications:	Three Randomized Block Design
Study Size:	180° x 170° 0.70 acres
Plot Size:	20° x 50° 0.02 acres
Alleys:	10°
Soil:	Shambo loam
Range Site:	Silty
Seeding Date:	11 Apr 1985
Seeding Rate:	0.50 lbs. PLS/row/acre
Alfalfa Variety:	Anik, Kane, Rangelander, Travois
Row Spacing:	10°
Treatments:	Control 2" straight chisel 3" twisted chisel 4" twisted chisel 6" twisted chisel 6" sweep behind coulter pair 12" sweep behind coulter pair 16" sweep behind coulter pair 14" lister

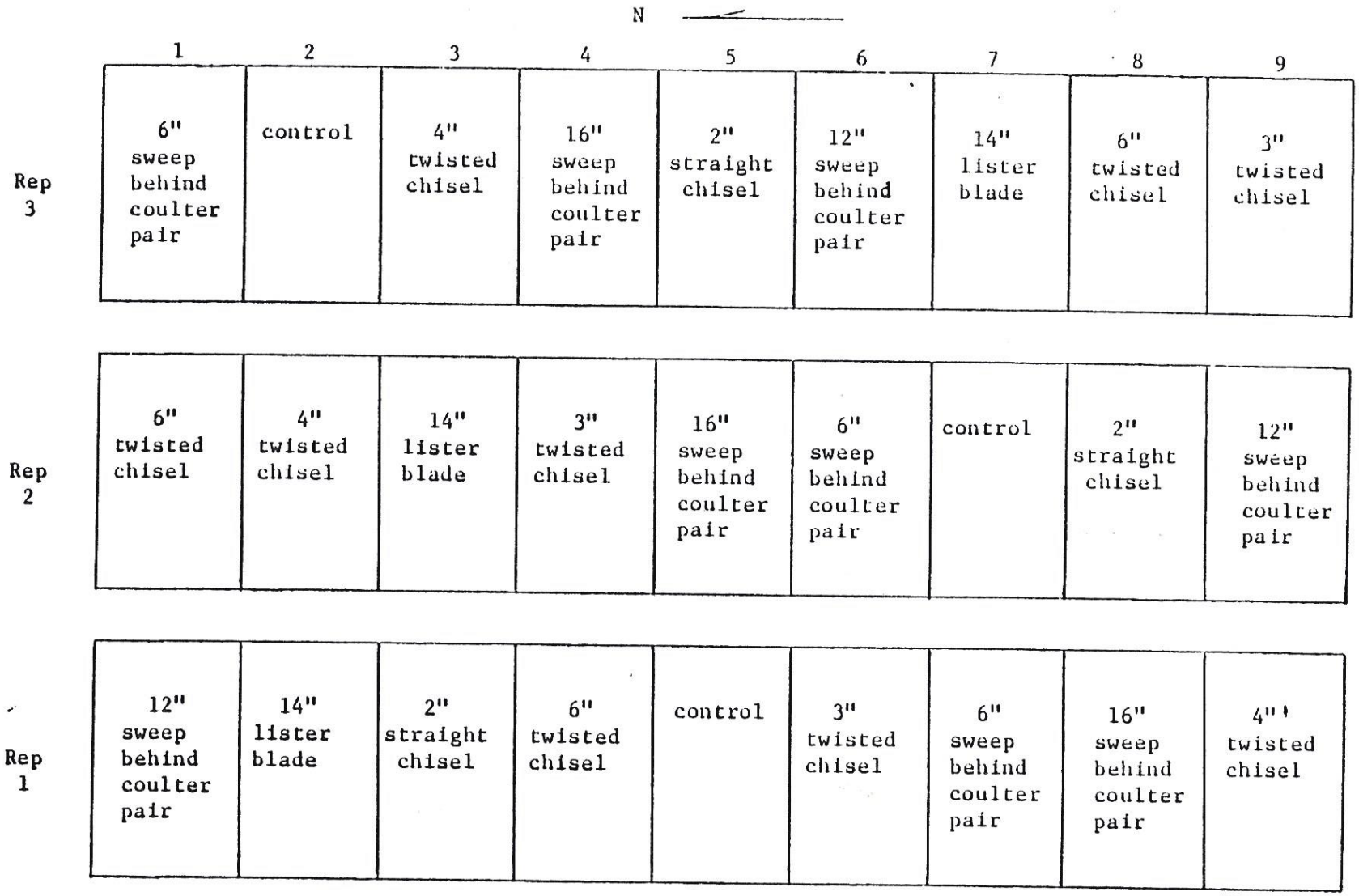

Figure 4. Plot diagram for the 1985 alfalfa interseeding furrow width techniques trial at the Ranch Headquarters Dickinson Experiment Station.

Table 35. Mean Alfalfa Plant Count per Meter of Row for the 1985 Alfalfa Interseeding Furrow Width Techniques Trial at the Dickinson Experiment Station, 1988

Furrow Width	10 Jun	6 Jul	4 Aug	Mean
Control	0.0	0.0	0.0	0.00
2" straight chisel	1.3	1.5	1.3	1.37
3" twisted chisel	0.7	0.8	0.9	0.80
4" twisted chisel	0.9	0.9	0.8	0.87
6" twisted chisel	0.8	0.7	0.7	0.73
6" sweep behind coulter pair	1.8	1.3	2.1	1.73
12" sweep behind coulter pair	2.1	2.5	2.5	2.37
16" sweep behind coulter pair	1.7	2.4	2.1	2.07
14" lister blade	3.8	3.7	4.2	3.90

Table 36. Mean Alfalfa Plant Heights in Centimeters for the 1985 Alfalfa Interseeding Furrow Width Techniques Trial at the Dickinson Experiment Station, 1988

Furrow Width	10 Jun
Control	0.00
2" straight chisel	25.90
3" twisted chisel	19.68
4" twisted chisel	25.75
6" twisted chisel	25.78
6" sweep behind coulter pair	22.59
12" sweep behind coulter pair	20.95
16" sweep behind coulter pair	19.02
14" lister blade	19.48