Table 7. Total Numbers of Six Spotted Leafhopper, MACROSTELES FASCIFRONS, Recorded on Potato Varieties. Grand Forks and Voss, North Dakota, 1965-1967.

Variety	Grand Forks 1965	1966	1967	Total	Voss 1965	1966	1967	Total
Bounty	121	38	—		125	101	—	
LaRouge	97	43	18	158	57	115	47	219
Viking	119	82	19	220	75	132	83	290
Norchip	81	63	37	181	75	103	41	219
Norchief	59	67	27	153	64	72	72	208
Norgold Russet	128	90	22	240	122	150	63	335
Snowflake	69	46	22	137	71	84	72	227
Norland	72	60	28	160	21	129	48	198

Table 8. Total Numbers of Potato Leafhopper, EMPOASCA FABAE, Recorded on Potato Varieties. Grand Forks and Voss, North Dakota. 1965-1967.

Variety	Grand Forks 1965	1966	1967	Total	Voss 1965	1966	1967	Total
Bounty	105	99	—		121	187	—	
LaRouge	95	114	8	217	51	182	7	240
Viking	77	68	12	157	72	151	19	242
Norchip	60	71	7	138	70	109	17	196
Norchief	71	76	10	157	55	179	23	257
Norgold Russet	82	92	15	189	88	152	11	251
Snowflake	59	63	11	133	91	124	20	235
Norland	47	58	9	114	37	210	9	166

to define the results, the data collected suggest no appreciable tolerance is exhibited to these two insect species.

Since these data were collected under Red River Valley conditions, it is not known whether this apparent high tolerance to flea beetles will occur when these varieties are grown in other areas of the country where insect numbers may constitute a more severe problem.

Studies are in progress to define the factors contributing to flea beetle tolerance and susceptibility.

Effect of Stand on Yield and Nitrogen Content of Corn In Southeastern North Dakota

(Continued from Page 6)

dence of barren plants at certain stand levels in 1964 as compared to 1965 may have contributed to the higher NO_3 content in the corn forage at maturity. The amount of experimental variation in the NO_3 values was probably associated with the difficulty in obtaining representative forage samples as a result of the heterogeneous distribution of NO_3 within an individual plant. The chemical analyses show that a bushel of shelled corn contained between 0.90 and 0.98, and 1.06 and 1.12 pounds of N in 1965 and 1964, respectively.

Summary

The effect of five stand levels (6,000, 10,000, 14,000, 18,000, and 22,000 plants per acre) on grain yields, forage production, and uptake of nitrogen was investigated in four trials conducted in Richland County on fine textured soils during the years 1963 through 1965. The desired stand for maximum grain production differed in the various trials and appeared to be influenced by the available soil moisture. Forage production throughout the growing season tended to be greatest at the highest plant stands. The percentage of nitrogen and nitrate-N in the corn forage decreased during the growing season. Negligible amounts of nitrate accumulated in the corn grain. A lower amount of nitrate-N was present in corn forage obtained from the 6,000-plant stand.

New Grain Storage Plans Available

A centralized farm grain handling and storage system is becoming increasingly important. New plans are available to assist with grain bin location, arrangement and equipment selection. The plans show how to arrange grain bins as they are added so equipment and facilities can be added in an orderly manner. Over the years, then, a mechanized system can result which will store 20,000 to 40,000 bushels. A set of these new plans is available for review at county agent offices. Individual copies can be ordered from the Extension Agricultural Engineer, North Dakota State University, Fargo. Ask for plan MW 73292 or MW 73293, "Grain-Feed Handling Center." Cost for each plan is two dollars. The plans, produced by the Midwest Plan Service, represent the efforts of agricultural engineers in 12 North Central states.