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INTERSPECIFIC HYBRIDIZATION IN Lotus

In the year 1973 we established two field experiments, in four replications each, with 12 and 8 kg of seeds/ha, respectively, to provide green matter and seed yield for the 1974 experiments from the four F<sub>3</sub> Lotus crossings and their parental forms: Lotus corniculatus and Lotus uliginosus respectively. Additionally we incorporated the Canadian form of Lotus corniculatus.

The results of the year 1973 are presented in Table I.

TABLE I

Green matter weight of the F<sub>3</sub> Lotus hybrids generation [Lotus corniculatus X Lotus uliginosus (4x)]

Lines	Green matter experiment 12 kg seeds/ha		Seed treatment 8 kg seeds/ha	
	Average for 1 plot (kg)		Average for 1 plot (kg)	
	I cut	II cut	I cut	II cut
F <sub>3</sub> /1	4,8	2,4	4,5	2,7
F <sub>3</sub> /2	4,4	2,2	4,8	2,5
F <sub>3</sub> /3	5,2	1,6	4,7	2,1
F <sub>3</sub> /4	5,6	2,0	4,9	2,5
<u>Lotus corniculatus</u> "Bursztyn"	5,5	2,5	4,7	3,9
<u>Lotus uliginosus</u>	4,9	2,1	5,0	3,0
Canadian <u>Lotus</u> <u>corniculatus</u>	5,7	<u>4,8</u>	5,4	<u>4,1</u>

We applied the Duncan Test according to which statistically significant differences appeared in both experiments /12 and 8 kg/ha/ in the second cut only. In both cases the Canadian Lotus was the best.

In the year 1974 the two experiments will be continued and there'll be investigated green matter and seed yield and protein content as well.