Newport Kentucky Bluegrass Section

One of the grass seed fertility locations was established on a stand of Newport Kentucky Bluegrass on the farm of Leland King in the Culver district. The soil was probably a Madras sandy loam. This location received the same fertilizer treatment as the Merion Bluegrass locations.

The results (Table No. 4) received from this location were quite similar to the results obtained from Merion Bluegrass. The highest yield was obtained from 120# N applied in January. Basically the results indicate a requirement of N above 80#, probably between 120 and 160# of N is the optimum rate. The lowest efficiency of nitrogen resulted from the spring applications and there appeared to be little benefit from split applications of nitrogen at least under the conditions of 1960. The yield by replicate may be found in Appendix Table No. 4.

The percentage germination was determined on each treatment (a composite of the four replicates) at this location. While there was a slight variation between treatments it is impossible to show that the rate or time of fertilizer application effected seed germination under the conditions of the experiment.

At this location the bushel weight for the several treatments was very close to 23.5 pounds. There was no attempt made to adjust the treatments to a standard bushel weight.

In general, Newport Kentucky Bluegrass appears to have approximately the same fertility requirements as Merion Bluegrass.

Table No. 4

Summary Table Showing the Effect of Nitrogen Rate and Date of Application, also the Omission of P,K,&S on the Seed Yield and Percentage Germination of Newport Kentucky Bluegrass on the Leland King Farm, Culver, Oregon, 1960.

Pounds of Nitrogen Per Acre as Ammonium Nitrate By Month of Application							Average Seed Yield	Percent Germination
Oct.	Nov.	Dec.	Jan.	Feb.	March	May		
40-K(1)					80		595.0	81
40-P					80		641.4	83
40-S					80		448.8	85
120							539.7	84
	120						696.7	86
		120					625.6	82
			120				730.0	81
				120			671.6	82
					120		565.1	82
80							506.2	87
	80						450.4	82
	40				40		551.5	84
40					40		507.6	84
	40					40	427.6	84
	40				80		465.4	83
40					80		570.3	84
	40					80	490.1	83
40					40	40	555.1	87
40					120		596.4	88
80					80		675.0	84
120					40		696.8	87
					L.S.D. .05		148.7	

(1) All treatments received a blanket application of 90# / A P_2O_5, 100# /A K_2O & 80# / A S except where noted.

Appendix Table No. 4

Effect of Nitrogen Rate and Date of Application; also the Omission of P,K, and S on the Seed Yield of Newport Kentucky Bluegrass. Yields are in Pounds of Seed Per Acre. (1) Yields are Presented by Replicate and Average Seed Yields.

Leland King Farm - Culver, Oregon - 1960

Pounds of Nitrogen Per Acre as Amm. Nitrate By Month of Application							Pounds Per Acre of Seed By Replicate				Average Seed Yield
Oct.	Nov.	Dec.	Jan.	Feb.	March	May	I	II	III	IV	
40-K (2)					80		675.4	389.2	485.1	830.1	595.0
40-P					80		773.8	430.1	544.0	817.6	641.4
40-S					80		427.2	423.8	540.2	403.8	448.8
120							713.3	476.8	375.4	593.2	539.7
	120						806.4	592.8	674.9	712.5	696.7
		120					789.7	594.4	469.7	648.7	625.6
			120				716.2	649.5	629.5	924.8	730.0
				120			743.8	455.1	599.4	888.1	671.6
					120		495.6	453.4	654.9	656.6	565.1
80							537.3	323.7	652.0	511.8	506.2
	80						425.1	348.7	396.3	631.6	450.4
	40				40		554.4	363.8	551.5	736.3	551.5
40					40		613.2	444.3	441.3	531.4	507.6
	40					40	458.0	391.3	431.8	429.2	427.6
	40				80		631.6	402.5	333.7	493.9	465.4
40					80		437.2	653.3	602.8	587.8	570.3
	40					80	466.4	391.3	568.6	534.0	490.1
40					40	40	584.8	464.3	521.9	649.5	555.1
40					120		642.4	387.9	494.7	860.6	596.4
80					80		744.6	694.1	417.2	843.9	675.0
120					40		870.2	475.1	743.8	697.9	696.8
									L.S.D. @ .05		148.7

(1) Approximate B ushel Weight 23.5#

(2) All treatments received on application of 90#/A. P_2O_5, 100#/A. K_2O and 80#/A. S except Where noted.