

## A COMPARISON OF WHEAT YIELDS ON CONTINUOUS CROPPING, CORNLAND AND FALLOW, FERTILIZED AND UNFERTILIZED

This trial was begun in 1959 to compare the results of commercial fertilizer application on three different cropping systems over a long period of years. While there is considerable information available on work with commercial fertilizer application on wheat in North Dakota not very much of it is on sites such as these where data are kept on cropping history and fertilizer application over a long period of years.

Complete background information and procedure are on file at the Dickinson Experiment Station under Agronomy Project Outline Number 12.

Data from the 1965 trial are given in table 29. Table 30 summarizes yields from this trial for six the year period 1959-65.

<b>Table 29. Wheat Yields on Continuous Cropping Cornland and Fallow, Fertilized and Unfertilized</b>				
Treatment	Yield in Bushels Per Acre			
	1	2	3	Average
Spring Plowed, Continuous Cropping	17.3	16.5	18.1	17.3
Spring Plowed, Continuous Cropping-Fertilized	22.8	18.1	25.9	22.3
Summerfallow	29.8	31.4	33.0	31.4
Summerfallow, Fertilized	32.2	32.2	37.7	34.0
Disked Cornland	21.2	25.9	26.7	24.6

Disked Cornland - Fertilized	29.8	33.0	31.4	31.4
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<b>Table 30. Summary of Wheat Yields on Continuous Cropping Cornland and Fallow, Fertilized and Unfertilized for the Period 1959-65.</b>								
Treatment	Bushels Per Acre							
	1959	1960	1961	1962*	1963	1964	1965	Average
Spring Plowed, Continuous Cropping	6.7	10.8	4.8	---	17.8	8.6	17.3	9.4
Spring Plowed, Continuous Cropping, Fertilized	8.1	12.5	3.9	---	19.4	10.7	22.3	11.0
Summerfallow	11.1	15.3	6.2	---	28.1	13.0	31.4	15.0
Summerfallow, Fertilized	12.9	22.0	8.1	---	33.8	16.1	34.0	18.1
Disked Cornland	7.3	10.6	0.0	---	18.7	10.6	24.6	10.3
Disked Cornland, Fertilized	8.6	13.6	0.0	---	25.7	11.8	31.4	13.0
*Trials destroyed by Hail in 1962.								

<b>Table 31. Rotation - Fertilizer Protein Samples. 1964-1965.</b>		
Treatment	1964	1965
Wheat on:		

Spring Plowed Stubble	15.00	13.50
Spring Plowed Stubble - Fertilized	14.10	13.00
Disked Cornland	14.50	14.10
Disked Cornland - Fertilized	14.60	13.60
Summerfallow	18.00	15.60
Summerfallow - Fertilized	18.00	15.50

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