(Tables 34 and 35). This is probably because variations in moisture equivalent would be due to organic matter. The other major factor contributing to moisture equivalent was clay. However, it was not affected by treatment.

It is clear from these data that even with good soil management it was not possible to maintain the organic matter content of virgin Norfolk loamy fine sand. The loss of organic matter, however, was largest during the first 4 years and the extent it declined was related to the cropping system and fertilizer practice. The loss was largest for continuous peanuts and less for 3-year rotations and continuous corn. Two-year rotations fell between these 2 systems.

TABLE 37.—MOISTURE EQUIVALENT AS AFFECTED BY RATES OF FERTILIZER ELEMENTS.

Pounds per Acre			Moisture equivalent			Percent Difference* from	
N	P_2O_5	K_2O	1947	1951	1957	1947 to 1951	1951 to 1957
21	25	20	8.1	6.5	6.3	—1.6	—0.2
42	50	40	8.0	6.4	6.4	—1.6	0.0
63	75	60	8.1	6.5	6.6	—1.6	0.1
21	75	60	8.0	6.6	6.4	—1.4	—0.2
42	75	60	7.7	6.4	6.5	—1.3	0.1
63	75	60	8.1	6.5	6.6	—1.6	0.1
63	25	60	7.9	6.5	6.3	—1.4	—0.2
63	50	60	7.7	6.2	6.5	—1.5	0.3
63	75	60	8.1	6.5	6.6	—1.6	0.1
63	75	20	7.6	6.5	6.5	—1.1	0.0
63	75	40	8.0	6.5	6.4	—1.5	—0.1
63	75	60	8.1	6.5	6.6	—1.6	0.1
Average						—1.5	0.0

* Minus sign indicates decrease in moisture equivalent, no sign indicates increase: the values for the highest level are repeated but not used more than once in the average.

When high rates of fertilizer were applied to 3-year rotations, organic matter loss was less than when the fertility level was low. Since most soils in Florida are very low in clay content, the humus or decomposed organic matter constitutes the main part of the cation-exchange capacity of these soils (*9*). Since cation-exchange is a valuable soil property from the standpoint of moisture and fertilizer retention, it is important that practices be used that will keep organic matter at a high level.