

not. The amounts of extractable phosphorus in soil samples from lower depths in these plots are recorded in Appendix Table 3.

TABLE 19.—PHOSPHORUS EXTRACTED BY THREE METHODS FROM SOIL OBTAINED AT THE 0-6 INCH DEPTH FROM PLOTS WHICH RECEIVED 0 AND 6 PERCENT P_2O_5 FERTILIZER FOR 15 YEARS (EXPERIMENT 7).†

% P_2O_5 in Fertilizer	Phosphorus Extracted, lb. P/A		
	NH_4Ac pH 4.8	Bray P_1 test	Bray P_2 test
0	36	80	114
0	15	117	165
0	19	92	145
Average No P_2O_5	23	96	141
6	43	205	274
6	30	286	396
6	28	216	268
Average 6% P_2O_5	34	236	313

† See Appendix Table 3 for P extracted from samples obtained at other depths.

Since no marked response was obtained to phosphorus applications in the bearing grove experiments, it is not possible to determine, with assurance, which soil test method most accurately predicts the amount of phosphorus available to citrus trees. Spencer (27) reported that phosphorus accumulated in sandy citrus soils was available to citrus trees; therefore, any soil test method for available phosphorus which reflects the amount of phosphorus applied should be a more suitable soil test method for available phosphorus than one which does not do so. Robertson (21) found that the Bray P_2 test was most satisfactory of four methods tested in determining the phosphorus status of Red Bay soils. A comprehensive study of soil test methods on a wide variety of soils and crops by the Soil Test Work Group of the National Soil Research Committee (8) indicated that the Bray P_1 test was better correlated with the amount of soil phosphorus available to crops than the other methods under study. The fact that the Bray methods, utilizing ammonium fluoride, better indicate the amount of phosphorus applied to Florida citrus groves and have resulted in better correlations with response to phosphorus fertilizer (8, 21) would justify consideration of its use on soils from Florida citrus groves. Further studies of phosphorus test methods for use on all Florida crops, including citrus, appear to be needed.