A STUDY OF THE THIOCYANATE TEST FOR ACID SOILS,
WITH PARTICULAR REGARD TO VARIOUS
ORGANIC SOLVENTS

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During the past few years the Comber thiocyanate test (2) for acid soils has been used quite extensively by field men and in various laboratories as a rapid method for estimating the lime requirement of soils. Since 95% ethyl alcohol cannot be used in this country as a solvent for the potassium thiocyanate except for research purposes, several other solvents have been proposed.

About a year ago, a large demand came from the county agents in Iowa for a simple field test which would give the same results on both moist and dry soils, and the extension department of Iowa State College began to distribute a test solution containing about 1.2% potassium thiocyanate dissolved in pure acetone. This solution has been very popular among field men because many tests can be made in a short period of time, due to the fact that clear solutions are obtained very quickly after the soil and test solution have been thoroughly shaken. However, since the testing of soils for acidity has been increasing very rapidly in this state, it seemed advisable to study the accuracy of the test more thoroughly by comparing the acetone solution of potassium thiocyanate with other qualitative tests for soil acidity and with other thiocyanate solutions which are being

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3Reference by number is to Literature Cited, p. 500.