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A medium for the inhibition of spreaders and the differentiation of B. coli and B. aerogenes.

By CHARLES EDWARD SKINNER and T. J. MURRAY.

[*From the Department of Bacteriology, Rutgers College, New Brunswick, N. J.*]

In a study of a project under way a culture medium was developed that differentiated between *Bacillus coli* and *Bacillus aerogenes* and inhibited spore formers (spreaders). This medium is Levine's eosin methylene blue agar to which is added 1/100,000 of crystal violet.

In testing this triple dye agar out, 50 spreaders isolated from soil and 100 strains of the "Colon Bacilli", isolated from a variety of sources, were streaked on this medium. None of the "spreaders" developed in 24 hours; in 48 hours, 21 developed slightly; the remainder never developed. No deleterious effects were shown the "Colon Bacilli" of which 73 were of *B. coli* and 27 were *B. aerogenes,* separated on the basis of the Voges-Proskauer reaction.

The *B. coli* and *B. aerogenes* colonies are very typical in 48 hours. *B. coli* colonies are black or dark bluish violet by transmitted or reflected light, with dark centers reaching to the edge or nearly so. They tend to show a decided green metallic sheen. They show no tendency to run together.

B. aerogenes colonies are pink or light lavender by reflected light, by transmitted light, dark centers not reaching more than half way to the edge. The colonies are sticky, showing a decided tendency to run together. There is no metallic sheen.

Samples of soil, feces, sewage and a polluted stream were inoculated in lactose bouillon for enrichment. Streaks were made on the triple dye agar and colonies studied and classified as *B. coli* or *B. aerogenes.* These colonies were also inoculated into lactose bouillon for confirmation and into dextrose broth for the Voges-Proskauer test. Two hundred and thirty-five colonies were called *B. coli* and 99 *B. aerogenes.* By the above tests 222 of the 235 colonies of 94.4 per cent were actually *B. coli,* while 92 of the 99 or 93 per cent colonies were actually *B. aerogenes.*