

A SATISFACTORY MEDIUM FOR THE ISOLATION,  
CULTIVATION, AND MAINTENANCE OF  
VIABILITY OF *VIBRIO FETUS* (BOVINE)

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The strain of *Vibrio fetus* that this laboratory has found in aborted bovine fetuses during the past two years is more difficult to grow in laboratory media and to keep viable without transfer at close intervals than strains that were isolated 15 to 20 years ago.

In an attempt to find a more suitable culture medium for *Vibrio fetus*, a new medium known as "thiol," developed by the Difco laboratories, was studied. This is semisolid medium containing 0.1 per cent agar. It was developed for the purpose of growing aerobic and anaerobic organisms in the presence of high concentrations of penicillin or streptomycin.

Thiol medium, if prepared according to the directions of the manufacturer and if the pH is adjusted to 6.8 before sterilization, will grow vibrios rapidly and in large numbers when present in the exudate of the stomach of an aborted fetus. The vibrios grow profusely at or within 0.5 mm of the surface of a tube of the medium. Maximum growth is obtained in a tube (8-by-1-inch) of medium in 4 days at 37 C from inoculation of a pure culture of vibrios. If one desires to obtain a dense suspension of vibrios for antigenic studies, the organisms may be harvested from the top layer of the tube of medium at intervals of 4 days. On microscopic examination the appearance of the vibrios varies from short S curves to long spiral filaments.

It has been found that the vibrios will remain alive in tubes of thiol medium held at room temperature (26 C) for at least 150 days without intervening transfers.