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## The use of Sodium Taurocholate and Crystal Violet in the Isolation of Bact. tumefaciens Sm. & Town.

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Dr. Benbrook who was making a chemical and histopathological examination of these cases called my attention to a reprint from the Journal of Experimental Medicine, November 1, 1925, by Jones and Little, describing thirteen cases from three herds of cows, purchased from the middle west and shipped to New Jersey. This is an excellent piece of research work and the first report of diseases of this nature in this country to be due to a diphtheroid organism.

#### Summary.

In the past three years the clinic at Ames has had five cases of pyelonephritis in the cow, all of which proved fatal. The disease is characterized by passing bloody urine shortly after calving.

Four of these cases were bilateral. A true diphtheroid organism was secured in pure culture from the urine and kidney of two cases. The disease is present in this country and in Iowa, and due to its fatality is of economic importance.

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### THE USE OF SODIUM TAUROCHOLATE AND CRYSTAL VIOLET IN THE ISOLATION OF *BACT. TUMEFACIENS* SM. & TOWN.

M. K. PATEL

In the isolation of *Bacterium tumefaciens* from overgrowths on apple, one of the greatest sources of contamination is that of soil organisms. These are lodged in the soil within the crevices of the convoluted gall surface. In addition the crown gall organisms frequently occur in only small numbers, making it necessary to use large amounts of tissue for isolation purposes.

It was found that the addition of small quantities of sodium taurocholate and crystal violet to the dextrose agar inhibited large numbers of the contaminants without inhibiting *Bacterium tumefaciens*.

The medium as used has the following formula :

Agar .....	15 grams
Witte's peptone.....	10 grams
Dextrose .....	20 grams
Sodium taurocholate.....	3 grams
Crystal violet (0.1% aqueous solution).....	2 c.c
Water .....	1000 c.c.

DIRECTIONS FOR PREPARATION

1. Melt 15 grams of agar in 1000 c.c. of distilled water.
2. Add 3 grams of sodium taurocholate, 10 grams of peptone and boil until well mixed.
3. Add 20 grams of dextrose and adjust to pH 7.0.
4. Add 2 c.c. of 1-1000 (aqueous) crystal violet and make up to 1000 c.c. Filter through cotton until clear.
5. Tube and sterilize in autoclave for 15 minutes at 15 pounds pressure.

IOWA STATE COLLEGE,  
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A SUBSTITUTE FOR BEERWORT AS A YEAST MEDIUM IN THE BACTERIOLOGY LABORATORY

JOHN C. WELDIN

Ordinary beerwort, the usual medium in the past for yeast culture in Bacteriology laboratories, has become increasingly difficult to obtain. The manufacture of beerwort in the laboratory is a tedious process and the product is variable and often unsatisfactory for good yeast growth.

Dehydrated Malt Extract Broth as put up by the Digestive Ferments Company of Detroit was not found to be a satisfactory substitute but when a little dipotassium phosphate and ammonium chloride were added and the reaction properly adjusted it supported good yeast growth and gave abundant gas production. A series of experiments with different concentrations of the chemicals employed and using a considerable number of yeast strains were inaugurated. From these the following formulae were derived.

A liquid medium in which yeasts produce abundant gas.

Malt extract (Difco).....	15 g.
$K_2HPO_4$ .....	1 g.
$NH_4Cl$ .....	1 g.
Dist. $H_2O$ .....	1000 c.c.
Medium adjusted with citric acid to pH 5.4-5.6.	