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**STUDIES ON PURIFICATION OF  
*CLOSTRIDIUM BOTULINUM* TYPE C TOXIN**

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(Summary of Master's thesis written under direction of Dr. T. HAGA)

Procedures for development of a medium for the production of *Clostridium botulinum* type C toxin and purification of the toxin produced in this medium were described.

It was observed that the medium consisting of 4% peptone, 2% Bacto-casitone, 2% corn steep liquor, 1% yeast extract, 1% glucose, 0.5% sodium chloride and 0.05% sodium thioglycollate was most favorable for the toxin production among the media examined.

The culture filtrate in which the organisms were cultivated for 168 hours at 33°C contained  $1 \times 10^6$  mouse intraperitoneal MLD per ml.

The toxin was purified by adsorption and elution from Zn-gel, fractionation with ammonium sulfate, and gel filtration with Sephadex G-50, followed by chromatography on DEAE cellulose with stepwise and gradient elution by elevating the sodium chloride concentration in phosphate buffer solution.

The purified toxin was homogeneous electrophoretically with the specific activity of  $42.15 \times 10^6$  mouse intraperitoneal MLD per E (extinction at 275 m $\mu$  of ultraviolet ray).