

# Kansas Agricultural Experiment Station Research Reports

---

Volume 0  
Issue 10 *Swine Day (1968-2014)*

Article 199

---

1979

## Prevention and control of enteric swine diseases

R M. Phillips

N V. Anderson

Follow this and additional works at: <https://newprairiepress.org/kaesrr>



Part of the [Other Animal Sciences Commons](#)

---

### Recommended Citation

Phillips, R M. and Anderson, N V. (1979) "Prevention and control of enteric swine diseases," *Kansas Agricultural Experiment Station Research Reports*: Vol. 0: Iss. 10. <https://doi.org/10.4148/2378-5977.6039>

This report is brought to you for free and open access by New Prairie Press. It has been accepted for inclusion in Kansas Agricultural Experiment Station Research Reports by an authorized administrator of New Prairie Press. Copyright 1979 Kansas State University Agricultural Experiment Station and Cooperative Extension Service. Contents of this publication may be freely reproduced for educational purposes. All other rights reserved. Brand names appearing in this publication are for product identification purposes only. No endorsement is intended, nor is criticism implied of similar products not mentioned. K-State Research and Extension is an equal opportunity provider and employer.



---

## Prevention and control of enteric swine diseases

### Abstract

Work on colibacillosis has been concentrated on isolating and identifying enterotoxigenic *E. coli* from specimens submitted to the Veterinary Diagnostic Laboratory. Strains of enterotoxigenic *E. coli* isolated in the laboratory were sent to veterinary practitioners to use in producing of autogenous vaccines for producers to prevent neonatal diarrhea. Of 1,179 *E. coli* isolated from clinical specimens and tested for enterotoxin production, more than 22 percent of these isolates were disease-producing enterotoxigenic strains. These enterotoxigenic *E. coli* were sent to 136 veterinary practitioners for use in autogenous vaccines. The diagnostic laboratory also serves as a center for storing these vaccine strains.; Swine Day, Manhattan, KS, November 8, 1979

### Keywords

Swine day, 1979; Kansas Agricultural Experiment Station contribution; no. 80-136-S; Report of progress (Kansas State University. Agricultural Experiment Station and Cooperative Extension Service); 371; Swine; Enteric swine diseases; *E. coli*

### Creative Commons License



This work is licensed under a [Creative Commons Attribution 4.0 License](https://creativecommons.org/licenses/by/4.0/).

---

**K**

## Prevention and Control of Enteric Swine Diseases

**S**

R. M. Phillips and N. V. Anderson

**U**

---

Work on colibacillosis has been concentrated on isolating and identifying enterotoxigenic E. coli from specimens submitted to the Veterinary Diagnostic Laboratory. Strains of enterotoxigenic E. coli isolated in the laboratory were sent to veterinary practitioners to use in producing of autogenous vaccines for producers to prevent neonatal diarrhea. Of 1,179 E. coli isolated from clinical specimens and tested for enterotoxin production, more than 22 percent of these isolates were disease-producing enterotoxigenic strains. These enterotoxigenic E. coli were sent to 136 veterinary practitioners for use in autogenous vaccines. The diagnostic laboratory also serves as a center for storing these vaccine strains.

In a study to determine if the colony type of E. coli isolates grown on different laboratory media was significant in identifying pathogenic E. coli, isolates grown on tergitol-7 agar produced colonies with certain shapes that were much more likely than others to contain disease-producing bacteria.

We used ultrafiltration to purify and concentrate the toxin that damages pigs' intestines and injected it into laboratory animals to produce antisera to the toxin. The antisera can be used to improve detection of pathogenic E. coli.

We have also isolated and separated white blood cells from the gut wall because they may be important in protecting the pig from disease-producing E. coli. We have determined their response to artificial stimulators, in preparing to study the cells' ability to respond to the toxins produced by E. coli.