

Presented at:  
NMC 50th Annual Meeting  
(Arlington, Virginia, USA - 2011)

# SOP treatment of separated manure solids to reduce Klebsiella bacteria counts

H. Lynn Sharkey<sup>1</sup>, A. Zanierato<sup>2</sup>, P. Luparia<sup>2</sup>, M. Poggianella<sup>2</sup>, P. Moroni<sup>1</sup>,  
Y. H. Schukken<sup>1</sup>

<sup>1</sup>Quality Milk Production Services, Cornell University, Ithaca, New York, USA; <sup>2</sup>SOP Srl, Busto Arsizio (VA), Italy

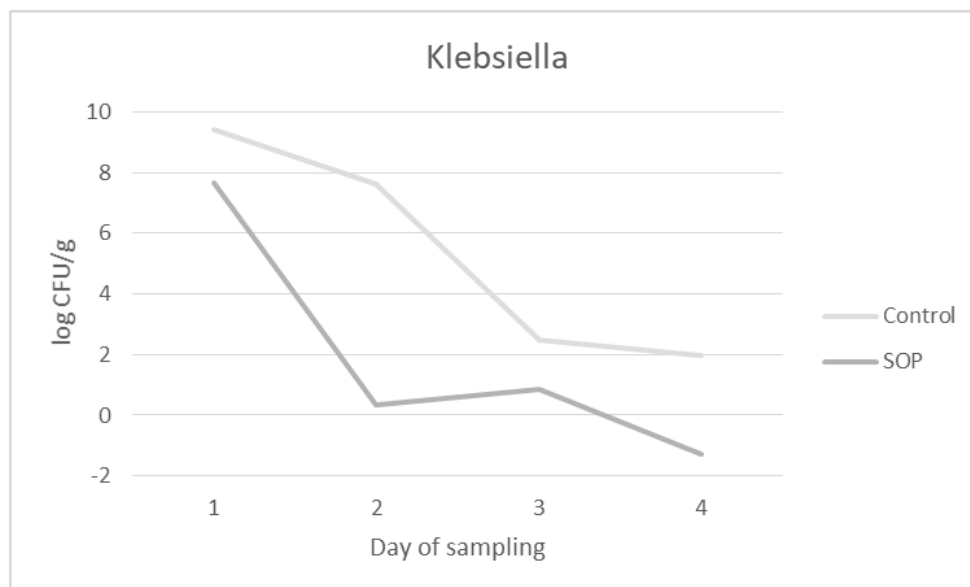
## Objectives

The aim of this study was to evaluate the effects of a Bio-hygienization treatment (SOP) on the bacterial populations (Streptococci and Klebsiella) and compare the bacteria counts in two separated manure solid heaps in a Bauer-Fan Bedding Recovery Unit.

## Materials & Methods

<b>Formula</b>	SOP SQC 233
<b>Amount of manure</b>	two heaps of approximately 3 m <sup>3</sup>
<b>Materials &amp; Methods</b>	Sampling consisted of aseptically taking samples every day from day 0 just before treatment (SOP), then on day 1, 2 and 3 and then, once, on day 7. 5 samples were taken every day from a depth of 20-30 cm, 5 samples from 40 to 60 cm and another 5 samples from a depth of 60-100 cm.
<b>Evaluated parameters</b>	Klebsiella
<b>Statistical significance</b>	P<0.01

## Results & Graphs



**Comments after publication:** the graph above shows an average reduction of more than 90% of the Klebsiella CFU, with a value of 99.9% on the 2nd day of treatment.

## Conclusions

The SOP products can affect very specific bacteria and help reduce them.