

Health related environmental microbiology LT 5.11.2002

1. Cattle manure is the only available fertiliser for cabbage.

From the literature you read that it can contain *Escherichia coli* O157:H7 (EHEC) up to 10 000 bacteria/g manure. Composting is a good method to destroy this bacterium and the decimal reduction time of EHEC is 120 minutes at 45 °C and the z-value is 8.5 °C. Your compost will reach 52 °C for 48h. The composted manure as 25 tn/ha is used very late before harvesting.

You get 16 tn/ha cabbage, which you and your friends on the harvesting day raw eat each 200kg. The infective dose of EHEC is 100 bacteria. Is there a risk for EHEC? Show the calculations. 8 p

2. Discuss the possibility of new pathogens: at least 3 cases. 6 p *El*

3. The reasons to get false-negative results for bacteria from environmental samples. 6 p

4. Human body as a reservoir for micro-organisms. 6 p

Muista laittaa papereihin nimesi ja syntymäaikasi.  
Remember write your name and your birthday.