

## **PIP Agriculture – Trial at the Farm of Eric van de Heuvel**

**Location:** Nistelrode, Netherlands

**Date:** March 2010 – January 2011

**Products used:** PIP AHS, PIP AHC, PIP Plus Water

**Co-ordinator:** Guy Vossen

### **Goal of the test**

To determine the effect of cleaning with PIP Agriculture products on the micro biota of a pig farm. The focus was on MRSA.

### **Results**

In order to realize the concept of microbial management, Chrisal NV has developed a line of cleaning products, PIP Agriculture. PIP stands for Probiotics in Progress. These products contain probiotic bacteria that consume all remaining dirt, thereby preventing the risk of pathogens from recolonizing cleaned surfaces.

To monitor the effects of the PIP Agriculture cleaning, surface microbiological samples were taken at a pig farm by Chrisal personnel. An external lab did a screening of the pigs for MRSA.

At the start of the test, the micro flora environment was unstable, and heavily contaminated with pathogenic bacteria. This included the pigs which carried very high levels of MRSA.

After 6 months of cleaning with PIP Agriculture products, there was a clear change in the situation. The cleaning with PIP Agriculture products had created a stable and safe micro flora in which the risk of pathogenic bacteria was significantly reduced. The changed microbial environment also had the effect of preventing the risk of transmission of MRSA from the environment to the pigs. Any remaining MRSA infections were due to contamination transferred from pig to pig.

Because of the positive effect on the micro flora, other beneficial effects were observed:

- The risk of streptococcus infections in the pigs was reduced.
- The quantity of antibiotics used was reduced to almost zero. Individual pigs were treated on an as-needed basis, while prophylactic antibiotic treatment for MRSA was no longer required.

### **Conclusion**

**The results of this trial clearly showed that cleaning with PIP Agriculture Products resulted in a healthy and sustainable situation. The risk of MRSA was lowered significantly, and the use of antibiotics was almost completely eliminated at this farm.**