Salmonella typhymurium is the predominant serotype found in pig carcasses in Europe and several strains are resistant to antibiotics. Risk-based analyses were conducted in Danish pork Salmonella program. Biosecurity and feed play a significant role in Salmonella control in farm. Gut health is increasingly being shown to be effective against intestinal pathogens and is essential to productivity and food safety programmes. The aim of this study is to evaluate the effect of the addition of three increasing concentrations of a microencapsulated blend of organic acids and nature-identical compounds in the diet of pigs experimentally infected with S. typhymurium.