

Non typhoid foodborne salmonellosis has been typically related to animal foods such as poultry and eggs, but in recent years and increased number of outbreaks have been linked to foods or food ingredients containing very low water contents. Those outbreaks indicate that this organism has a very unique ability to survive dry conditions as well as it is capable of tolerating heating temperatures used during food processing. Highlights of different projects related to this bacterium will be discussed in this seminar. In cereal foods *Salmonella* serovars lost almost no viability during storage for at least 3 months. In a toasted oats cereal matrix, the tolerance to heat increased as the water activity level declined from 0.5 to 0.1 and this effect was consistent among serovars. *Salmonella* biofilms' viable count was barely reduced after 4 h at 95°C if they had been pre-exposed to water activity of 0.5 or less. Two virulence genes *sseD* and *sopD* were involved in desiccation tolerance.