

The impact of Q fever: a quantitative value chain analysis of the Dutch dairy goat sector

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The economic impact of an animal disease and its associated control measures are generally most evident on farm level. In contrast, the impact on sector level often remains unclear and is not fully understood. Many actors are involved in a livestock sector and they are all related to each other, in various ways. To measure the impact of a disease on all these different actors, a value chain analysis can be conducted. In this study, a value chain analysis was used to investigate the economic impact of the Q fever outbreak in the Dutch dairy goat sector and the associated control measures taken at the end of December 2009. In total, 34 actors of the goat sector were interviewed and provided information about their total revenues, gross margins and view on the sector. With this information a value chain was built and used to estimate the economic differences (in terms of gross margin) in the Dutch goat sector between 2009 and 2010. The results from this analysis demonstrate a major negative impact of the Q fever outbreak on the gross margins of the farmers (-28%) and most of the actors directly related to them, for example the milk collectors and (fodder)suppliers. Large differences among the actors in these groups were visible, especially between affected and non-affected farmers (resp. -67% and -16%). Even though not all of the actors were negatively affected by the outbreak, the gross margin of the total chain showed a decrease of 14% in 2010. The gross margins of the farmers revealed the most sensitivity to differences in goat milk price in alternative scenarios. Value chain analyses often remain qualitative and descriptive. In this study, however, the value chain analysis was extended with a quantification of the impact of an animal disease. This provided quantitative information of the considerable negative impact of Q fever on the Dutch dairy goat sector.