Accepted Manuscript

An operational hygiene inspection scoring system for Austrian high-risk companies producing food of animal origin

Lisa Stadlmüller, Monika Matt, Hans Peter Stüger, Tanja Komericki-Strimitzer, Karen Jebousek, Martin Luttenfeldner, Klemens Fuchs

PII: S0956-7135(17)30029-4
DOI: 10.1016/j.foodcont.2017.01.019
Reference: JFCO 5426

To appear in: Food Control

Received Date: 14 October 2016
Revised Date: 20 January 2017
Accepted Date: 21 January 2017


This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.
An operational hygiene inspection scoring system for Austrian high-risk companies producing food of animal origin

Lisa Stadlmüller\textsuperscript{a}, Monika Matt\textsuperscript{b}, Hans Peter Stüger\textsuperscript{a}, Tanja Komericke-Strimitzer\textsuperscript{b}, Karen Jebousek\textsuperscript{c}, Martin Luttenfeldner\textsuperscript{c}, Klemens Fuchs\textsuperscript{a}

\textsuperscript{a}Austrian Agency for Health and Food Safety, Department of Statistics and Analytical Epidemiology, Zinzendorfgasse 27/1, 8010 Graz, Austria
\textsuperscript{b}Austrian Agency for Health and Food Safety, Department of Statistics and Analytical Epidemiology, Technikerstraße 70, 6020 Innsbruck, Austria
\textsuperscript{c}Federal Ministry of Health and Women’s Affairs, Radetzkystraße 2, 1030 Vienna, Austria

Abstract
This study investigates factors associated with operational hygiene of milk, fish and meat producers in Austria using official control data collected in 2014 and 2015. The control inspections (n = 352) were routinely performed by the state authorities comprising a survey as well as food and environmental sampling. The survey, developed in cooperation with official control in advance, was divided in four modules dealing with specific aspects for the three mentioned food categories as “conditions of the goods and their handling” or “microbiological criteria”. The operational hygiene inspection scores were concluded from numerical indicators for the status of operational hygiene and quality management. From 2014 to 2015, the operational hygiene inspection scores of milk and meat increased and of fish decreased. This indicates an improvement of hygienic management in Austrian milk and meat companies. One factor indicating the general fulfillment of the four survey modules was determined by factor analysis. The results confirm that companies with food rejections, meaning food samples deemed as unsafe (Regulation EC No 178/2002, 2002, article 14), wrong labelling (Regulation EC No 1169/2011, 2011) or insufficient hygiene (Regulation EC No 852/2004, 2004), received a lower score than companies without rejections. The design of a scoring tool for milk, fish and meat industries by using the survey in combination with routine data was achieved as objective of this study. Additionally, the analysis of sampling data on Listeria detection revealed a clear correlation: The detection of Listeria in companies without food rejections was statistically significantly lower than in companies with food rejections. In order to provide a better insight into the contamination status (e.g. Listeria) of high-risk companies the present study shows a method to combine results of a routine survey with available data from national control authorities.

Keywords: hygiene inspection, score, high-risk companies, food of animal origin, official control

1. Introduction

Within the European Union general principles and requirements concerning food are set at EU level. An integrated approach to food safety “from farm to table” covers all sectors of the food chain. The main objectives of the general food law (EC No 178/2002, 2002) are: (1) guarantee of a high level of human life and health, including protection of consumer interests in relation...
دریافت فوری متن کامل مقاله

امکان دانلود نسخه تمام متن مقالات انگلیسی
امکان دانلود نسخه ترجمه شده مقالات
پذیرش سفارش ترجمه تخصصی
امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
امکان دانلود رایگان ۲ صفحه اول هر مقاله
امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
دانلود فوری مقاله پس از پرداخت آنلاین
پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات