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SUPPLEMENTARY MATERIAL

Non-relevant *Salmonella* serotypes in fresh poultry meat: critical issues for official control officers at market level

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Supplementary Table 1. European Union and national legislative references and operational guidance documents on *Salmonella* in the poultry chain.

	Legislative References and operational guidance documents	Scope
EU Legislation	<p>REGULATION (EC) No 178/2002 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety</p>	<p>This Regulation provides the basis for the assurance of a high level of protection of human health and consumers' interest in relation to food, taking into account in particular the diversity in the supply of food including traditional products, whilst ensuring the effective functioning of the internal market. It establishes common principles and responsibilities, the means to provide a strong science base, efficient organizational arrangements and procedures to underpin decision-making in matters of food and feed safety.</p>
	<p>DIRECTIVE 2003/99/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 17 November 2003 on the monitoring of zoonoses and zoonotic agents, amending Council Decision 90/424/EEC and repealing Council Directive 92/117/EEC</p>	<p>It was adopted to ensure adequate surveillance of zoonoses, zoonotic agents and foodborne outbreaks, with the aim of gathering the information necessary to assess relevant trends and sources.</p>
	<p>REGULATION (EC) No 2160/2003 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 17 November 2003 on the control of salmonella and other specified food-borne zoonotic agents</p>	<p>Established measures to reduce the prevalence of <i>Salmonella</i> and other zoonotic agents at all stages of production, processing, and distribution, particularly on primary production, while setting Union targets for their reduction. In order to achieve these targets, Member States must define and implement national control programmes aimed at reducing the prevalence of <i>Salmonella</i> serotypes considered serotypes with public health significance. The identification of such serotypes is based on scientifically defined criteria, including their frequency of isolation in human cases (based on data collected through EU monitoring system), their distribution among animal population and feed, transmissibility and pathogenic potential, as well as virulence and antimicrobial resistance.</p>
	<p>COMMISSION REGULATION (EU) No 200/2010 of 10 March 2010</p>	<p>It sets a maximum annual prevalence of 1% or less in breeding flocks of <i>Gallus gallus</i> for</p> <ul style="list-style-type: none"> • <i>S. Enteritidis</i>, • <i>S. Infantis</i>, • <i>S. Hadar</i>,

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<p>EU Legislation</p>	<p><i>implementing Regulation (EC) No 2160/2003 of the European Parliament and of the Council as regards a Union target for the reduction of the prevalence of Salmonella serotypes in adult breeding flocks of Gallus gallus</i></p>	<ul style="list-style-type: none"> • <i>S. Typhimurium</i> (including the monophasic variant) and <ul style="list-style-type: none"> • <i>S. Virchow</i> <p>identified as relevant <i>Salmonella</i> serotypes in this production category</p>
	<p>COMMISSION REGULATION (EU) No 200/2012 of 8 March 2012 concerning a Union target for the reduction of <i>Salmonella</i> Enteritidis and <i>Salmonella</i> Typhimurium in flocks of broilers, as provided for in Regulation (EC) No 2160/2003 of the European Parliament and of the Council</p>	<p>It sets a maximum annual percentage of flocks of broilers remaining positive for</p> <ul style="list-style-type: none"> • <i>S. Enteritidis</i> and • <i>S. Typhimurium</i> (including the monophasic variant) equal to 1% or less.
<p>EU Legislation</p>	<p>COMMISSION REGULATION (EU) No 1190/2012 of 12 December 2012 concerning a Union target for the reduction of <i>Salmonella</i> Enteritidis and <i>Salmonella</i> Typhimurium in flocks of turkeys, as provided for in Regulation (EC) No 2160/2003 of the European Parliament and of the Council</p>	<p>It sets maximum annual percentage of fattening turkey flocks remaining positive of</p> <ul style="list-style-type: none"> • <i>S. Enteritidis</i> and • <i>S. Typhimurium</i> to 1 % or less; <p>and</p> <p>a reduction of the maximum annual percentage of adult breeding turkey flocks remaining positive of</p> <ul style="list-style-type: none"> • <i>S. Enteritidis</i> and • <i>S. Typhimurium</i> to 1 % or less.

		SLAUGHTERHOUSE	ESTABLISHMENTS OTHER THAN SLAUGHTERHOUSES				
		<i>Process hygiene criteria</i>	<i>Food safety criteria</i>				
	<p>COMMISSION REGULATION (EC) No 2073/2005 of 15 November 2005 on microbiological criteria for foodstuffs</p> <p>AND</p> <p>COMMISSION REGULATION (EU) No 1086/2011 of 27 October 2011 amending Annex II to Regulation (EC) No 2160/2003 of the European Parliament and of the Council and Annex I to Commission Regulation (EC) No 2073/2005 as regards salmonella in fresh poultry meat</p>	<p>Poultry carcasses</p> <p>☉</p> <p>• <i>Salmonella</i> spp.</p> <p>Not detected in 25 g in a pooled sample of neck skin</p> <p>BUT If (+) → <i>serotyping</i></p> <p>↓</p> <p><u>+ > 5c for non-relevant- NTS</u></p> <p>Annex I, chapter II, Action in case of unsatisfactory results: <i>Improvement in slaughter hygiene and review of process controls, origin of animals and biosecurity measures in the farms of origin</i></p> <p><u>Relevant-NTS</u></p> <p><i>When Salmonella spp. is found, the isolates shall be further serotyped for S. Typhimurium and S. Enteritidis in order to verify compliance with the microbiological criterion set out in Row 1.28 of Chapter 1 fresh poultry meat, food safety criterion.</i></p>	<p>Fresh poultry meat</p> <p>☉</p> <p>• <i>Salmonella Enteritidis</i> • <i>Salmonella Typhimurium</i></p> <p>Not detected in 25 g</p>	<p>Minced meat and meat preparations made from poultry meat intended to be eaten cooked</p> <p>☉</p> <p>• <i>Salmonella</i></p> <p>Not detected in 25 g</p>	<p>Mechanically separated meat (MSM)</p> <p>☉</p> <p>• <i>Salmonella</i></p> <p>Not detected in 25 g</p>	<p>Meat products made from poultry meat intended to be eaten cooked</p> <p>☉</p> <p>• <i>Salmonella</i></p> <p>Not detected in 25 g</p>	<p>Reg. (EC) No 2073/2005 Article 7, Unsatisfactory results: <i>The product or batch of foodstuffs shall be withdrawn or recalled in accordance with Article 19 of Regulation (EC) No 178/2002.</i></p> <p><i>However, products placed on the market, which are not yet at retail level and which do not fulfil the food safety criteria, may be submitted to further processing by a treatment eliminating the hazard in question. This treatment may only be carried out by food business operators other than those at retail level</i></p>
	<p>National Salmonellosis Control Plan (NSCP) 2025-2027 (see Figure 1)</p>	<p>The purpose of this plan is to ensure that adequate and effective measures are adopted for the detection and control of <i>Salmonella</i> strains potentially responsible for zoonoses at primary production level, in order to reduce their prevalence and the related public health risk. The control activities under the NSCP are aimed at achieving the EU target for reducing the prevalence of relevant-NTS serotypes to public health</p>					

<p>NATIONAL Legislation and Operational guidance documents (Ministerial notes)</p>	<p>Operational guidance documents (Ministerial notes)</p>	<p>DGISAN-0030530/2015 <i>Non-relevant-NTS serotypes detected in fresh poultry meat in establishments other than slaughterhouses - Operational guidance</i></p>	<p>It was clarified that if the meat is intended for the production of <i>meat preparations, minced meat, or meat products</i> to be consumed after adequate cooking and this indication is clearly stated on the label with corresponding instructions on time and temperature withdrawal or recall of the product is not required, as it does not pose a risk to the consumer.</p>
		<p>DGISAN-0001038/2016 <i>Labelling requirements for meat preparations, minced meat and poultry meat products intended to be consumed only after adequate cooking.</i></p>	<p>It was clarified that the label statement “<i>to be consumed only after thorough and complete cooking to a core temperature of at least 75°C</i>” is consistent with Article 14(3) of Regulation (EC) No 178/2002. Alternatively, the FBO may establish cooking times and temperatures appropriate to achieve the same level of safety.</p>
		<p>DGISAN-0004901/2022 <i>Presence of Salmonella other than S. Enteritidis and S. Typhimurium in poultry meat, poultry meat preparations and poultry minced meat</i></p>	<p>Introduced a more restrictive approach.</p> <p>The detection of non-relevant-NTS serotypes in fresh poultry meat during self-monitoring must necessarily lead to corrective actions, such as directing the meat to the production of <i>heat-treated meat products</i>; whereas, in the case of a positive result detected during official control, the RASFF system must be activated, and the withdrawal or recall of the product must be arranged for its submission to a heat treatment.</p>
		<p>DGISAN-0006489/2022 <i>Clarifications on note prot. No 0004901 of 16 February 2022 DGISAN: presence of Salmonella other than S. Enteritidis and S. Typhimurium in poultry meat, poultry meat preparations and poultry minced meat</i></p>	<p>It clarifies that the above-mentioned note is a part of an exchange between the Ministry of Health and the Istituto Superiore di Sanità, and does not constitute an act intended to issue directives nationwide.</p>