1. Record Nr. UNINA9910482867603321 Autore Naletoski Ivancho Titolo Nuclear and Radiological Emergencies in Animal Production Systems, Preparedness, Response and Recovery Pubbl/distr/stampa Springer Nature, 2021 Berlin, Heidelberg:,: Springer Berlin / Heidelberg,, 2021 ©2021 **ISBN** 3-662-63021-4 Descrizione fisica 1 online resource (206 pages) Altri autori (Persone) LuckinsAnthony G ViljoenGerrit Soggetti Contaminació radioactiva Producció animal Veterinària preventiva Veterinary medicine Public health & preventive medicine Accident & emergency medicine Animal ecology **Biochemistry** Llibres electrònics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Intro -- Foreword -- Acknowledgements -- Introduction -- Contents -- About the Contributors -- Abbreviations -- Chapter 1: National Veterinary Services Roles and Responsibilities in Preparing for and Responding to Nuclear and Radiological Emergencies --References -- Chapter 2: Short Refresher of Radiobiology -- 2.1 Atoms and Isotopes -- 2.2 Definition of Radiation -- 2.3 Types of Ionizing Radiation -- 2.3.1 ß Decay -- 2.3.2 ß+ Decay -- 2.3.3 Electron Capture -- 2.4 Physical Half-Life of Radioactive Isotopes -- 2.5

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Sommario/riassunto

This Open Access volume explains how major nuclear and radiological emergencies (NREs) can have implications at local, national and international level. The response to NREs requires a competent decision-making structure, clear communication and effective information exchange. National veterinary services have the responsibility to plan, design and manage animal production system in their countries. These activities cover animal health, animal movement control, production control and improvement, and control of the products of animal origin before their placement on the market. Release of radionuclides after NREs can cause substantial contamination in the animal production systems. Critical responsibility of veterinary authorities is therefore to prevent such contamination, establish early response mechanisms to mitigate the consequences and prevent placement of contaminated products of animal origin on the market for human consumption. This work summarizes the critical technical points for effective management of NREs for national veterinary services.