

## Plant poisonings and mycotoxicoses of livestock in Southern Africa – 2nd edition

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The 1st edition of this book was published in 1988. It was the 1st comprehensive book on the plant poisonings and mycotoxicoses of livestock in southern Africa. Douw Steyn published the only other book on this subject, *The Toxicology of Plants in South Africa* in 1934. The 1st edition of *Plant Poisonings and Mycotoxicoses of Livestock in Southern Africa* has been very popular and widely used by veterinarians, toxicologists, researchers and students. It became the reference work for plant poisonings and mycotoxicoses in the region and went out of print after 2 reprints.

Southern Africa arguably has the richest flora in the world and most of our 600-odd poisonous plants are unique to southern Africa. Since our poisonous plants are largely unknown outside the continent, institutes and universities abroad can contribute very little to our knowledge on the subject. We must therefore address the problems caused by our plants and fungi from an African perspective.

Nowhere in the world have plant poisonings a proportionally greater impact on livestock production than in southern Africa. According to a report published in 1996, the annual mortalities from these poisonings in South Africa ran to c. 37 665 head of cattle and 264 851 small stock. The annual total cost of plant poisonings/mycotoxicoses to the livestock industry of the country was conservatively estimated at R105 million. These figures of course did not include hidden losses such as diminished production, reproductive failure, and the cost of not utilising toxic pastures and the drop in the value of infested land.

Most of the research on plant poisonings and mycotoxicoses of the southern African region was carried out by researchers at the Onderstepoort Veterinary Institute. Sir Arnold Theiler, the founder of the institute had amongst his other interests, a keen interest in plant poisonings. He published work on 'Gouw-Ziekte' in sheep during 1906 and followed that by publications on 'Dunziekte' and 'Jagziekte' in horses as well as 'Geeldikkop' in sheep in 1918. Douw Steyn was the 1st veterinarian to join the staff of the Toxicology Division at the Onderstepoort Veterinary Institute in 1926. For the next 60 years only 3 other toxicologists, namely Tom Adelaar, Theuns Naudé, and Fanie Kellerman headed the Division of Toxicology. These great mentors trained aspiring toxicologists. In the modern era, mentoring has become a problem and the 2nd edition of this book will ensure that current and future researchers can use the wealth of information accumulated over 100 years.

For the 2nd edition of *Plant Poisonings and Mycotoxicoses of Livestock in Southern Africa*, the content has been thoroughly updated to include all the research and reports of clinical cases of poison-

ing recorded in the last 17 years since the publication of the 1st edition. It is now a 320-page handbook compared to the 243 pages of the 1st edition. More than 300 new references were included in the new publication. The quality of the 66 distribution maps of the plants and the quality of the 380 colour photographs has also been improved. For each intoxication, the causative agent is described and depicted in colour. Distribution charts are given and detailed information is supplied on the toxicology, chemistry, clinical signs and pathology of the conditions. Particular emphasis is placed on the pathology, as this is often vital in making a diagnosis.

The authors used the same unique layout of the 1st edition. Plant poisonings and mycotoxicoses are grouped according to the system of the body that is affected and not according to the taxonomy of the plants. This has been done for ease of consultation as veterinarians first determine which system is affected before making differential diagnoses. All syndromes are therefore grouped in one of 8 chapters namely: liver, central nervous system, cardiovascular system, gastrointestinal tract, urogenital system, respiratory system, haemopoietic system and skin and adnexa. The layout has profoundly influenced the structure of toxicology courses in our regional veterinary schools. The book also has a significant affect on veterinary practice not only in southern Africa but in all Africa; for without being able to distinguish plant poisonings from infectious diseases and other conditions an effective diagnostic service cannot be rendered on our continent.

The 2nd edition of *Plant Poisonings and Mycotoxicoses of Livestock in Southern Africa* has proved its value within a month of being released. A number of outbreaks of perennial ryegrass toxicity occurred in South Africa during December 2005. This condition, which is common to New Zealand, was first diagnosed in South Africa after the 1st edition had been published. In the 2nd edition the syndrome is fully described in Chapter 2 where the central nervous system disorders are described. Private practitioners and toxicologists could consult the book and diagnose the disease.

*Plant Poisonings and Mycotoxicoses of Livestock in Southern Africa*, 2nd edition, is a quality reference work and a 'must have' for veterinarians, toxicologists, students and researchers in this field.

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