

# Toxicological Problems Of The Industrial Agricultural Interface

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**The energy shortage and environmental problems of the seventies have resulted in more industries relocating to the sunbelt. The major attractions for industries relocating to the south and southwest are the lower cost of land, lower taxes, and the greater abundance of lower cost fossil fuel, electricity and southern hospitality.**

It is now commonplace for large manufacturing plants to be located in industrial parks on what was agricultural land a few years ago. This close proximity of industry to farm and range land has resulted in some rather unique toxicological problems involving livestock and wildlife. There are many documented cases where livestock have been affected from industrial emissions and effluents. Also contributing to the problem are electrical power lines and oil and gas pipelines where rights-of-way cross agricultural land. Toxicological problems associated with the construction and maintenance of oil and gas pipelines and the maintenance of electrical power line rights-of-way can all be documented.

Another major problem involves the petroleum industry.

Potential hazards exist in all phases of the industry including exploration, drilling, production, transportation and refining. In the long history of the oil business no one will deny that the industry has been a significant polluter of land, water and the atmosphere. But it is incorrect to assume that the oil industry is completely irresponsible or negligent since lost oil is lost income and fines are stiff. The public needs to appreciate the real cost of discovering the last of the finite diminishing final reserves of oil and gas and the costs of secondary and tertiary recovery. Many independent oil men have sold their drilling rigs and shut down in the face of cheaper foreign oil, restricted allowables, increased taxation, rising cost of labor and reduction of the major incentive - the depletion allowance.

**In summary, the industrial agricultural interface poses some interesting and challenging problems. Veterinarians are in a unique position to work with industry, land owners and the government in solving these problems.**

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### **VETERINARY GASTROENTEROLOGY**

Edited and With Contributions By  
**Neil V. Anderson, D.V.M., Ph.D.**  
With 42 Contributors

**VETERINARY GASTROENTEROLOGY** is unique — a first complete text in organization, scope and concept on digestive disease in small and large animals. Many of the contributors have pioneered in the areas in which they write, making this a truly definitive text on the subject. They have provided comprehensive descriptions of gastroenterology in horses, cattle and dogs.

The first section is broad and general in its emphasis on the sick animal, and is of greatest interest to the beginning student of clinical veterinary medicine since it introduces definitions and concepts in an easy-to-understand, linear fashion. History, signs of disease, laboratory examinations, and physical findings of the animal patient are discussed. The process of diagnosis through laboratory, radiographic, endo-

scopic and surgical procedures is described and followed by guidelines for initial symptomatic therapy. The second section presents the latest pre-clinical concepts of gastrointestinal structure and function, the role of feeding practices in digestive upsets, control of parasites, and gastrointestinal pharmacology. Newly understood concepts of immune mechanisms of the gut, pathophysiology of diarrhea and gastrointestinal function testing highlight this section, which serves as an update for practitioners and as background for students. Section three sets forth a comprehensive discussion of diseases of each segment of the gastrointestinal system. The diseases are sectionalized within each chapter in equine-bovine-canine sequence. Both the practitioner and the senior veterinary student will utilize this section in diagnosis, prognosis and treatment. The concluding section explores the real and apparent interactions between gastrointestinal and several other body systems.

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