

Piggery Waste Management

Among animal wastes, piggery waste is the most troublesome. Pig production industries have been growing as the demand for pork meat has increased, and as a result the waste management problem of piggery waste will become more serious in the future.

The land receiving the piggery wastes has already become over saturated with Nitrogen and Phosphorus in many countries and the solution to the waste problem is further complicated as the land area utilised for disposal becomes restricted.

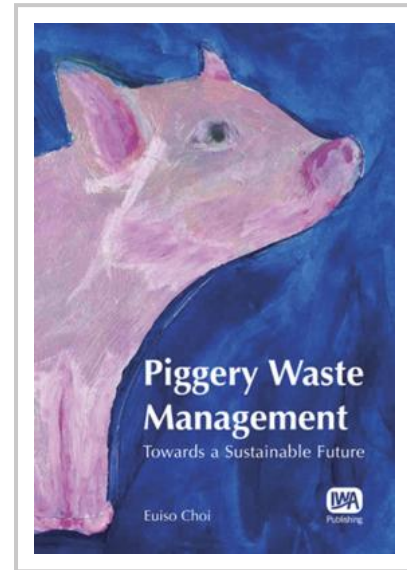
This book identifies and characterises the key issues involved in dealing with the management of piggery waste and provides recommendations on sustainable treatment regimes.

All the technologies available for the treatment of piggery waste are reviewed, including conventional and emerging technologies from composting and anaerobic digestion to nitrate nitrification and denitrification, Anammox, advanced oxidation, adsorption and membrane technologies.

Design procedures for biological nitrogen removal are introduced together with temperature effects. Phosphorus removal characteristics as struvite and other biological forms are also reviewed. Integrated treatment schemes are discussed to build an understanding of the systems to achieve sustainable piggery waste management.

Examples of integrated systems are presented, including recent modification of lagoon systems in the US; performances of energy recovery systems in Europe; wastewater treatment systems in Korea with limited land area as well as tropical experiences in Singapore and Malaysia.

This work will be an invaluable source of information for all those concerned with the research and practice of animal waste treatment. Practising engineers can use this work for planning, design and operation of treatment plants and it will also be suitable as a reference for policy makers and planners.



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