

REFERENCES On Odour Reduction Techniques – compiled by Dr. Bill Paton.

- M. Amon, M. Dobeic, T.H. Misselbrook, B.F. Pain, V.R. Phillips and R.W. Sneath (1995). Farm scale study on the use of De-odorase for reducing odour and ammonia emissions from intensive fattening piggeries. *Bioresource Technology* 51 : 163 – 169.
- T. Al – Kanani, E. Akochi, A.F. MacKenzie, I. Alli and S.Barrington (1992). Waste management. Odor control in liquid hog manure by added amendments and aeration. *Journal of Environmental Quality* 21 : 704 – 708.
- M. Andersson (1996). Performance of bedding materials in affecting ammonia emissions from pig manure. *Journal of Agricultural Engineering Research* 65 (3): 213-222.
- C.L. Barth, F.L. Elliott and S.W. Melvin (1984). Using odour control technology to support animal agriculture . *Transactions of the American Society of Agricultural Engineering* 27 : 859 – 864.
- R. Beaudet, C. Gagnon, J.G. Bisailon and M. Ishaque (1990). Microbiological aspects of aerobic thermophilic treatment of swine waste. *Applied Environmental Microbiology* 56 : 971 – 976.
- J.R. Bicudo and I.F. Svoboda (1995). Effect of intermittent-cycle extended-aeration treatment on the fate of carbonaceous material in pig slurry. *Bioresource Technology* 54: 53-62.
- D.L. Day (1966). Liquid hog manure can be deodorized by treatment with chlorine or lime. *Illinois Research* 127 (Summer) : 16.
- C.B. deLint (1998). Eco-Barn, an environmentally – and animal – friendly pork production sytem. *Agridigest* December p.5.
- H.J. Eby and G.B. Wilson (1969). Poultry house dust, odour and their mechanical removal. In : *Agricultural Waste Management Proceedings, Cornell University Conference on Agricultural Waste Management, Syracuse, NY*, pp. 303 – 309.
- K. Haga (1998). Animal waste problems and their solution from the technological point of view in Japan. *Japan Agricultural Research Quarterly* 32 (3) : 203 – 210.
- .A.J.Heber.(1997). Setbacks for Sufficient Swine Odour Dispersion and Dilution. Purdue University Publication. [Pork@Purdue. http://pasture.ecn.purdue.edu/~heber/setba.html](http://pasture.ecn.purdue.edu/~heber/setba.html)
- A.J. Heber (1998). Effect of lagoon aeration on odor emissions from a swine grow-finish facility. Final report to Ramco Sales, Department of Agricultural and Biological Engineering, Purdue University, West Lafayette, IN, September 8.

- A.J. Heber and D.J. Jones (1999). Methods and practices to reduce odor from swine facilities. Ag Quality. 4pp. <http://www.agcom.purdue.edu/Agcom/Pubs/menu.htm>
- J.G. Henry and R. Gehr (1980). Odor control: An operator's guide. Journal of the Water Pollution Control Federation 52 (10) : 2523 – 2537.
- P.J. Hobbs, B.F. Pain, R.M. Kay and P.A. Lee (1996). Reduction of odorous compounds in fresh pig slurry by dietary control of crude protein. Journal of the Science of Food and Agriculture 71 : 508 – 514.
- Iowa State University Extension (1998). Fact Sheet Pm-1754a. Synthetic Covers. 2 pp.
- A.K. Lau, K.V. Lo, P.H. Liao and J.C. Yu (1992). Aeration experiments for swine waste composting. Bioresource Technology 41 : 145 – 152.
- X.W. Li, D.S. Bundy and J. Zhu (1998). The effects of manure amendments and scum on odor concentrations above pit surfaces and downwind. Bioresource Technology 66 (1) : 69 – 74.
- T.S. Lorig, E. Huffman, A. DeMartino and J. DeMarco (1991). The effects of low concentrations odors on EEG activity and behavior. Journal of Psychophysiology 5 : 69 – 77.
- H. Mannebeck (1985). Covering manure storing tanks to control odour. In : Proc. Odour Prevention and Control of Organic Sludge and Livestock Farming, ed. Nielsen, V.C., Voorburg, J.H., L'Hermite, P. Elsevier, London. Pp. 234 – 237.
- J.R. Miner (1975) . Management of odors associated with livestock production. In: Managing livestock wastes. St. Joseph , MI: American Society of Agricultural Engineers: 378 – 380.
- J.R. Miner (1980). Controlling odors from livestock production facilities: State – of – the – art. In: Livestock waste : A renewable resource. St. Joseph, MI : American Society of Agricultural Engineers : 297 – 301.
- J.R. Miner (1997). Nuisance concerns and odor control. Journal of Dairy Science 80(10): 2667 – 2672.
- O. Noren (1986). Design and use of biofilters for livestock buildings. Pp. 234 – 237. In V.C. Nielsen (ed.) Odour prevention and control of organic sludge and livestock farming. Elsevier Applied Science Publication, London.
- D.H. O'Neill and V.R. Phillips (1991). A review of the control of odour nuisance from livestock buildings : Part 1, Influence of the techniques for managing waste within the building. Journal of Agricultural Engineering Research 50 : 1 – 10.

D.H. O'Neill, I.W. Stewart and V.R. Phillips (1992). A review of the control of odour nuisance from livestock buildings : Part 2, The costs of odour abatement systems as predicted from ventilation requirements. *Journal of Agricultural Engineering Research* 51 : 157 – 165.

D.H. O'Neill and V.R. Phillips (1992). A review of the control of odour nuisance from livestock buildings : Part 3, Properties of the odorous substances which have been identified in livestock wastes or in the air around them. *Journal of Agricultural Engineering Research* 53 : 23 – 5 .

D. Phillips and N.R. Bulley (1980). Odour reduction of swine manure by aeration stripping. *Canadian Agricultural Engineering* 22 : 113 – 116.

PORK'97 (1997). Crop residue compost : another manure management option.
<http://www.porkmag.com/busi01.htm>

S.M. Rao Bhamidimarri and S.P. Pandey (1996). Aerobic thermophilic composting of piggery solid wastes. *Water and Science Technology* 33 (8): 89-94.

W.F. Ritter (1981). Chemical and biochemical odor control of livestock wastes: A review. *Canadian Agricultural Engineering* 23 (1) : 1-4.

W.F. Ritter (1989). Odour control of livestock wastes : State – of- the- art in North America. *Journal of Agricultural Engineering Research* 42 : 51 – 62.

L.M. Safley,Jr. and P.W. Westerman (1989). Anaerobic lagoon biogas recovery systems. *Biological Wastes* 27: 43-62.

S. Schirz (1985). Design and experience obtained with bioscrubbers. In : *Proc. Odour Prevention and Control of Organic Sludge and Livestock Farming*, ed. Neilsen, V.C., Voorburg, J.H. and L'Hermite,P., Elsevier, London. pp. 241 – 250.

J. Seedorf and J. Hartung (1999). Reduction efficiencies of a biofilter and a bioscrubber for bioaerosols from two different piggeries. *Berliner Und Munchener Tierarztliche Wochenschrift* 112 (12) : 444-447.

R.W. Sneath, C.H. Burton and A.G. Williams (1992). Continuous aerobic treatment of piggery slurry for odour control scaled up to a farm-size unit. *Journal of Agricultural Engineering Research* 53 : 81 – 92.

R.W. Sneath and A.G. Williams (1990). The possible importance of wind aeration in controlling odours from pig slurry stored after aerobic treatment. *Biological Wastes* 33: 151 – 159.

D.J. Warburton, J.N. Scarborough, D.L. Day, A.J. Muehling, S.E. Curtis and A.H. Jensen (1980). Evaluation of commercial products for odor control and solids reduction of liquid

swine manure. In: Livestock waste : A renewable resource. St. Joseph, MI: American Society of Agricultural Engineers; 309 – 313.

A.G. Williams, M. Shaw, C.M. Selviah and R.J. Cumby (1989). The oxygen requirements for deodorizing and stabilizing pig slurry by aerobic treatment. *Journal of Agricultural Engineering Research* 43 : 291 – 311.

D.W. Williams, T.R. Cumby, R. Phillips and C. Burton (1991). Anaerobic vs aerobic treatment of pig slurry for odor control. American Society of Agricultural Engineering, St. Joseph, USA. Publication No. 91 – 6005. pp. 1 – 6.

R. Zhang, P.N. Dugba, N.Rashid and D.S. Bundy (1996). Surface aeration of anaerobic lagoons for odor control of swine manure. International Conference on Air Pollution from Agricultural Operations, Midwest Plan Service, Kansas City, Missouri, February 7 – 9, pp. 387 – 394.

J. Zhu, D.S. Bundy, X.W. Li and N.Rashid (1997). Controlling odor and volatile substances in liquid hog manure by amendment. *Journal of Environmental Quality* 26 (3) : 740 – 743.