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Editorial

Modelling Animal Systems

Agricultural scientists have, for well over a century, sought mathematical descriptions of how animals go about their business of nutrition, growth and reproduction. The early issues of the Journal of Agricultural Science reflect this interest. Gavin in 1913 attempted to describe milk yield using regression coefficients (**5**, 377–390). In 1914, Wood and Yule stressed the importance of predictive accuracy in animal nutrition (**6**, 233–251) and, in 1915, Murray highlighted the need for formulae in determining nutrient requirements (**7**, 154–162). Ever since these early years, the Journal has continued to publish mathematical modelling papers concerned with aspects of animal agriculture. Not only full papers but also conference abstracts, having first carried the Proceedings of the Agricultural Research Modelling Group in 1990 (**115**, 145–149).

This special issue is dedicated to modelling animal systems papers to mark nearly a century of Journal involvement in this field. The theme will be continued in subsequent issues of the Journal throughout 2008. The papers published under this rubric are concerned with modelling animal process in their broadest sense. The models range in size from simple models to resolve kinetic experiments or interpret time-course data to large, process-based simulation models and feed evaluation systems. Models cover applications of statistics, linear programming and systems of differential equations. The papers are concerned with aspects of the construction, refinement, application and comparison of models. Some topical reviews are also included.

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