

ROYAL AGRICULTURAL COLLEGE MODULAR SCHEME

<i>Sheet updated: July 2010</i>		
Module Code 4038	Module Title Sustainable Agricultural Systems	Module Leader W P Davies
School which owns module	School of Agriculture	
Programme(s) to which module belongs	MSc International Rural Development	
Module Level 7	Module Credits 15	Pre-Requisites None
Minimum Study Time 150 hours	Contact Hours within Study Time 60	Teaching Period October – March Thursday am
<p>Module Content</p> <p>This module considers the major types of farming systems that have evolved globally in relation to the prevailing agro-climatic zones, the influences of economic factors and changing global markets. The module explores the sustainability of such systems - from subsistence farming, through integrated and low input systems to industrialised agriculture in relation to economic, environmental, social, cultural, food safety and ethical considerations. An enterprise analysis approach is adopted in notable farming systems to highlight sustainability issues and particular attention is given to advancing agro-technology influences.</p>		
<p>Module Outcomes</p> <p>To achieve credit for this module, students must be able to:</p> <ol style="list-style-type: none"> 1. Describe the potential and limitations of contrasting agricultural systems through the identification of key parameters that define agro-ecological zones. 2. Evaluate social and economic influences on these systems of production. 3. Critically analyse complex agri-food systems through case studies in order to better evaluate the potential sustainability of old and new agricultural practices. 		
Assessment	Description	Weighting
Coursework	Coursework	50%
	Farm visit exercise	20%
Examination	2 hours	30%

Key Text:

Students should be familiar with the content of at least one of the following:
ADAMS, W.M. (2009). *Green Development: Environment and Sustainability in a Developing World*. 3rd Edition. Routledge, Oxford.

ADDISCOTT, T. M., WHITMORE, A. P. and POWLSON, D. S. (1991). *Farming, Fertilisers and the Nitrate Problem*. CABI International, Wallingford.

BROWN, L.R.V. (2009) *Plan 4.0: Mobilising to Save Civilisation*. Norton & Company, New York.

DYSON, T. (1996). *Population and Food: Global Trends and Future Prospects*. Routledge, London and New York.

GLEN, D. M., GREAVES, M. P. and ANDERSON, H. M. (1995). *Ecology and Integrated Farming Systems*. John Wiley.

GOODING, M. J. and DAVIES, W. P. (1997). *Wheat Production and Utilisation: Systems, Quality and the Environment*. CABI International, Wallingford.

GREENLAND, D. J. (1997). *The Sustainability of Rice Farming*. CABI International, Wallingford.

GREENLAND, D. J., GREGORY, P. J. and NYE, P.H. (Eds). (1997). *Land Resources: On the Edge of the Malthusian Precipice*. CABI International, Wallingford.

HODGSON, J. and ILLIUS, A.W. (1996). *The Ecology and Management of Grazing Systems*. CABI International, Wallingford.

ILBERY, B., CHIOTTI, Q. and RICKARD, T. (1997). *Agricultural Restructuring and Sustainability: A Geographical Perspective*. CABI International, Wallingford.

JOHNSTON, A. E. and SYERS, J. K. (1998). *Nutrient Management for Sustainable Crop Production in Asia*. (In Press - CABI International).

SACKS, J.D. (2005). *The End of Poverty: Economic Possibilities for Our Time*. Penguin, London.

STEINFELD, H., GERBER, P., WASSENAAR, T., CASTEL, V., ROSALES, M. and DE HAAN, C. (2006) *Livestock's Long Shadow – A United Nations Report*. UN Food and Agriculture Organisation (FAO), Rome.