

A South West Perspective on the Report of the Policy Commission on The Future of Farming and Food

**WORKING PAPER NO. 2
Research and Knowledge Transfer**

Michael Winter

**Centre for Rural Research
School of Geography & Archaeology
University of Exeter
Lafrowda House
St. German's Road
Exeter EX4 6TL
Email D.M.Winter@exeter.ac.uk**

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Preamble

This paper offers some independent analysis and reflection on possible implications and opportunities of selected Curry Report recommendations specifically for the south west region. It is a working paper designed to stimulate discussion and comment within the region.

The *Policy Commission on the Future of Farming and Food* (2002), chaired by Sir Donald Curry (hereafter known as the Curry Report), reported in January 2002. Subsequently, in March, the Government responded to the report with a further paper opening up a consultation period to run to June. The Government has committed itself to producing a Strategy for Sustainable Food and Farming in England by the Autumn of 2002 (DEFRA 2002). The strategy will include an action plan of measures taken in response to the Curry Report, some of which will already be in place, and a Government response to each of the Curry Report recommendations.

As part of the consultation, regional events were held to discuss the document with stakeholders, including one in the south west on May 10th 2002. Discussions have been held in various forums within the region and a range of papers from regional stakeholders has been submitted to central government in response to the consultation, although the majority of submissions will have been from national players.

In conducting our work we have been mindful of two other significant policy debates which have opened up during the short period in which this research has been undertaken. First, the publication in May 2002 of the White Paper, *Your Region, Your Choice*, signals the prospect for greater regional discretion and devolution of powers from central government. Secondly, a debate on the future of the Common Agricultural Policy has re-emerged in anticipation of the European Commission's proposals for the mid-term review of CAP. This brings home strongly the fact that the Curry Report cannot be debated in isolation either at a regional or a national level. The implementation of Curry recommendations on modulation, for instance, will inevitably be greatly influenced by the outcome of the mid-term review.

In order to identify particular opportunities for the South West arising from the Curry report we conducted a series of telephone interviews with experts in the region¹, held a seminar with experts² and attended a discussion on the topic as an agenda item of the SWERDA's Rural Sub-Group chaired by Jonathan Porritt, as well as consulting relevant literature and data sources.

¹ Tim de Winton (Environment Agency), Gavin Saunders (Devon Wildlife Trust), Sarah Manning (Countryside Agency), Peter Morris (NFU), Steve Smith (Devon County Council), Steve Jarvis (IGER), Julian Hoskins (English Nature), Chris Short (University of Gloucestershire), Steven Wright (Gloucestershire Rural Community Council), Dudley Coates (ex-MAFF).

² Geoff Bateman (Environment Agency), Anthony Gibson (NFU), Matt Lobley (University of Plymouth), Tim Render (GOSW), Mark Robbins (RSPB), Dianne Roberts (SWRDA).

Research and Knowledge Transfer

Recommendation 5: RESEARCH PRIORITIES BOARD

Government should set up a new 'priorities board' for strategic research, involving Government, academic, consumer, environmental and industry representatives to set the agenda for public research on farming and food matters.

Recommendation 6: LEVY BOARDS RESEARCH CO-ORDINATION

Industry levy bodies and government should improve co-ordination of their applied farming and food research, to avoid duplication and maximise synergies.

Recommendation 7: DEMONSTRATION FARMS

DEFRA should work with the applied research forum and the levy bodies to establish a pilot scheme of demonstration farms by the end of 2002. There is a strong case for putting modest funding behind such a programme.

The capacity of regions to support processes and structures for knowledge generation, learning and innovation have been identified, although not uncritically, by a number of researchers as key elements in forging competitive regional advantage (Benz et al 2002, MacKinnon et al 2002). It is taken as axiomatic in this section that the south west region should be a 'learning region'.

The proposals made by the Curry report on research could have important implications for the South West, although it is important to recognise the difficulties because of the complexities of the research funding system. Research capacity is provided primarily by four groups:

- Universities
- Research institutes
- Private sector research/consultancy companies (including charitable and pressure group organisations)
- Private businesses conducting their own R&D

In the context of public sector research, the first two of these require the most consideration. There are a number of funding sources for this research. There are five main streams:

- The Higher Education Funding Council for England (HEFCE), allocated to the universities and other HE establishments.
 - The research councils³, funded through and allocated on a competitive basis (usually to universities).

³ The most relevant ones to agriculture and food issues are Biotechnology and Biological Sciences Research Council (BBSRC), Natural Environment Research Council (NERC) and Economic and Social Research Council (ESRC).

- Central (and regional) government departments with their own research programmes.
- Private sector sources (usually charitable foundations).
- The European Commission.

The Curry Commission proposal is primarily to do with the second and third of these sources of funding, but the core capacity is to a significant extent determined by the first of these. The allocation of HEFCE research grants to colleges and universities in the South West England RDA region for 2002-2003 is show in Table 1.

Table 1. HEFCE Research Funding

Institution	Research Grant
Royal Agricultural College	£51,948
Falmouth College of Arts	£130,096
Bath Spa University College	£245,427
Bournemouth University	£453,947
University of Gloucestershire	£854,067
University of West of England	£2,100,493
University of Plymouth	£2,998,359
University of Exeter	£9,156,817
University of Bath	£11,700,000
University of Bristol	£28,833,167
Total	£56,524,321

Total HEFCE research grant funding for English universities, colleges and specialist institutions in 2002-2003 is £939,999,996. The South West percentage of this is 6% of the total, which is significantly less than the level it would be if allocations were proportionate to GDP (10% of England total). Apart from the implications this may have for the likelihood of appropriate research being conducted in the region, research is an important economic activity in its own right with significant local impacts and benefits. For example, the Institute of Grassland and Environmental Research (IGER) situated close to Okehampton and conducting research of regional, national and international importance employs nearly 100 people. As wages/salaries are set nationally the local economic multiplier of the research activity is not insignificant. This clearly applies in a much more obvious way to the universities of the region.

In agriculture, the South-West hosts two of the nineteen institutions in the UK which submitted to HEFCE's Research Assessment Exercise (Plymouth and the Royal Agricultural College). But in research terms, as well as scoring only moderately in the assessment (3a in each case), both institutions are very small. The total staff entered to the Research Assessment Exercise amounts to just seventeen of the 1,000 Agriculture staff entered across the UK as a whole (1.7% of the total). The presence of IGER in some ways compensates for this although, of course, RIs also exist in other parts of the country⁴.

Of course, agriculture is just one unit of assessment relevant to the rural policy and food and farm sectors⁵. Relevant research work may be carried out in other disciplines such as biology and geography. The University of Gloucestershire, for example, whilst predominantly a teaching-led institution, has a specialist rural research unit funded under the Town and Country Planning HEFCE Unit of Assessment. Exeter University's own research in this area takes place within Geography. The University of Bristol conducts high quality research of great relevance to agriculture and food within its veterinary science school. Moreover, we are not suggesting that research of relevance to the region necessarily has to be conducted within the region. Of course, research of great relevance is conducted at other institutions such as Reading University. Nonetheless the HEFCE figures strongly suggest that the regional research capacity in farming and food issues, given the importance of the agro-food sector to the region's economy, is an issue that should be considered. The HEFCE figures indicate that there are very different capacities in institutions that superficially might appear to have similar functions. Thus, the universities of Bath, Bristol and Exeter together account for 88% of the HEFCE research income flowing into the region.

It is important to note that the public sector funding allocations are made nationally⁶ and at European level, and research priorities are decided in the context of national and international research agendas. There have been a number of processes and structures designed to deal with the issue of determining research priorities. The Curry recommendation to establish a priorities board is in fact to return to an earlier situation. Of what relevance might a priorities board be to the region?

As a preliminary exercise in setting research priorities we asked our key informants to identify priorities for the south west farm and food sector. The following suggestions were made:

- Grassland and its management.

⁴ As do ADAS experimental husbandry farms but there are none of these in the south west either

⁵ HEFCE is not the only source of funding for agricultural and related research. Other relevant research may be funded by research councils or by central government departments such as DEFRA. For example, the BBSRC and DEFRA are major sources of funding for the Institute of Grassland and Environment Research (IGER).

⁶ The research councils allocate funds across the whole of the UK in contrast to HEFCE which, as the name implies, allocates only within England. However, HEFCE works in collaboration with its partner funding councils in the other countries of the UK in the operation of the Research Assessment Exercise to determine allocations of research funds within the HE budget.

- The integration of tourism and livestock
- Marketing.
- More integrated research, as not all research into sustainable agricultural production is sufficiently broad
- Environmental sustainability building on the characteristics of south west agriculture e.g. enterprises based on grazing livestock, woodland management, small field patterns, low level unit production to give high level income.
- Climate change and how this relates to changes in production and product mix.
- Diversification to the benefit of a larger proportion of business.
- Renewable energy and structures to support it.
- Dairying: sustainability, adding quality, the impact of the water directive.
- The appropriateness of technology.
- Learning lessons from the Bodmin Moor Experiment: making sure that agriculture is fitting in with its environment.

Knowledge Transfer: Advisory Provision & Demonstration Farms

A vast amount of work has been undertaken on this topic in recent years. A recent exhaustive review undertaken for DEFRA recommends a number of actions that might be taken to improve knowledge transfer (Dampney et al 2001). These recommendations are reproduced in Appendix 1. The findings are consistent with some of the findings from our interviews with key informants. Respondents suggested that the transfer of results of research to producers requires a multi-channel approach (for examples, use of IT, distance learning opportunities, demonstration farms, open days, advisors, and road shows). In addition, information imparted will need to be high quality and from a trusted source. Some of the more specific suggestions were as follows:

- Transferring results to producers is getting harder because of increasing isolation with fewer farmers going to markets and more working off the farm.
- Need for a regional centre to feed through and disseminate information to farmers.
- ADAS type demonstration farms are needed – they were trusted, independent, funded, and widely available.
- A flexible package of methods – IT, distance learning, farm demonstrations, best practices visits
- Interaction in focus groups and brainstorming with farmers would help.

Conclusions & Recommendations

It is important that the region's own priorities are articulated within the Priorities Board. If the evidence of the past role of priorities boards and the more recent experience of the foresight exercise is anything to go by there is a strong likelihood that the scientists will be heavily involved in the process. This is understandable but research priorities should not be determined primarily by those likely to undertake the research. The region needs to find mechanisms both to determine appropriate regional priorities and to influence the Priorities Board itself.

In order to do so, there is an urgent need both to determine and enhance research capacity within the region. Key questions should cover:

- What research of relevance to food and farming issues is being undertaken by universities and RIs within the region? Do the relevant institutions have a capacity for a greater research effort targeted at the region's needs?
- How can this research be enhanced and how can the benefits for the region's food and farming sectors be maximised?
- What should be the region's own research priorities?
- How best can regional collaboration of RIs be facilitated?

This is not to suggest that the region's institutions necessarily have the capacity to deliver all the research that is relevant to regional issues. In fact, that is highly unlikely, but it will be the case in some instances.

Demonstration farms should not be seen in isolation. They should be implemented as part of a wider knowledge transfer strategy. There is a need for the region to engage with DEFRA at national level to ensure that the developing knowledge transfer strategy is attuned to regional needs.

References

Benz, A. & Furst, D. (2002) Policy learning in regional networks, *European Urban and Regional Studies*, 9, 21-35.

Dampney, P. Winter, M. and Jones, D. (2001) *Communication Methods to Persuade Agricultural Land Managers to Adopt Practices that will benefit Environmental Protection and Conservation Management*, Report by ADAS, CCRU & Town & Country Communications Group.

DEFRA (2002) *Sustainable Food and Farming: Working Together*, DEFRA, London.

MacKinnon, D.C. Cumbers and K. Chapman (2002) Learning, innovation and regional development: a critical appraisal of recent debates, *Progress in Human Geography*, 26, 293-311.

Appendix 1. Extract from Report to DEFRA

**Communication methods to persuade agricultural land managers to adopt practices that will benefit environmental protection (EP) and conservation management (CM) (AgriComms). DEFRA Project KT0107
Dampney et al 2002**

Planning and prioritisation

1. A clear Government EP and CM strategy with associated key objectives needs to be agreed followed by a nationwide publicity campaign.

This will help pave the way for national, regional or local campaigns. It will show transparency and avoid any accusations of there being a fragmented approach. A press conference and/or official statement, together with a press release and short strategy paper that is targeted to all the national, regional and farming press would be a good start.

2. Local areas (e.g. catchments for EP) should be identified as the primary basis for the provision of integrated information and advice including EP and CM.

Areas might be defined on the basis of landscape, catchment and/or farming system characteristics and should be of a size that will make constituent farmers feel they are a significant part of their area. This could encompass both geographical targeting in terms of the regional/local needs of the agricultural industry and priorities for particular habitats, Natural and Countryside Character Areas and/or areas covered by local Biodiversity Action Plans. DEFRA and its Agencies should take the initiative to identify the boundaries and objectives of each area, but in close consultation with other stakeholders including farmer representatives.

3. Target objectives for individual areas need to be identified and prioritised.

It is unrealistic to expect all objectives to be met quickly in all areas. The process of identifying priority areas should continue but considering integrated EP and CM improvement. Within areas, issues should be identified and prioritised, balancing the importance of an issue against the ease/cost/likelihood of success in achieving the desired changes to farm practices. DEFRA and its Agencies should take the initiative to identify the objectives of each area, but in close consultation with other local stakeholders including farmers or farmer representatives.

4. DEFRA should take a clear lead in developing easily understood technical messages which have industry wide agreement. An agreed and simple terminology is needed.

To avoid confusion and mistrust, it is essential that there is a clear policy on EP and CM issues with messages, advice, farm audits and benchmarking that can be regarded as agreed national standards. A glossary of agreed terminology should be developed to avoid inconsistencies and confusion. DEFRA should make clear the primary information, advice and advisory tools which it supports.

5. DEFRA should consider increasing the integration of EP and CM objectives and activities within DEFRA funded schemes.

Many current schemes are targeted to a restricted range of output objectives. Provided a scheme was not made overly complex to understand, implement or administer, inclusion of both EP and CM objectives could be effective.

6. Realistic assessments need to be made of the cost to farmers of the desired changes to farm practices and whether these can be realistically achieved through voluntary changes or require financial support. This will influence the communication methods used.

To allow farmers/advisers to evaluate the economic implications, any changes to recommended practices as a result of advice, new research and/or policy developments should have information on the financial costs and benefits. Where implementation will usually be cost-neutral or involve a loss in farm profits, then financial support measures or legislation will need to be considered.

Implementing communications

7. All communications should be approached from a marketing perspective.

This means tackling everything from a 'customer-orientated' viewpoint – i.e. the farmer and his advisers. Communications planning on both a national and local level must be comprehensive and consistent.

8. Each target area should have its own individual communications plan that is tailored to the situation and the needs of the target audiences within it. Farmer representatives should be part of this planning process.

The objectives, needs, characteristics and constraints of different areas will vary, thus requiring different approaches to achieve change. Involvement of farmers from the outset could be helpful in designing a campaign and will encourage ownership of the activities. Part of the plan should be to publicise the start of a local initiative nationally. This will serve two purposes. First, it will add credibility and weight to the initiative with local people, paving the way for an integrated communications campaign that will be targeted at them. Secondly, it will inform the wider farming and rural community about that the objectives and strategy being implemented. Each plan should be devised by following the 10 steps of communication planning.

9. It must be recognised that no one communication method will achieve the objectives. All individual communication methods should form part of an integrated plan.

A programmed mix of methods will be needed depending on the specific objectives and EP/CM characteristics of the local area, and the farmers within it.

10. Farmers need to be convinced that their farm practices either do impact, or could impact, on the EP and/or CM issues of an area.

Ownership of an EP or CM problem or requirement is an essential pre-requisite for accepting that some change is desirable. Open and balanced information is needed to show farmers the impact their practices have, or could have, compared to other influences. Carefully planned, mass media communication methods are best suited to achieve this, with simple, quick to digest messages.

11. Greater attention should be paid to the emerging diversity of the agricultural industry so that knowledge provision and decision support aids covers the needs of all influencers such as new entrants, contractors, consultants and other private sector service companies, the agricultural supply trade and farmers.

Appropriate intermediary organisations which have contact with farmers should be identified and provided with the necessary training and information so that they can help in the process of generating farmer awareness and interest, providing advice or 'sign-posting' farmers to sources of further information. A gearing effect should result from effort directed to training the influencers of farm decisions.

12. A mix of accessible farmer clubs, discussion groups, demonstration farms, newsletters, well written publications and one-to-one advice etc are likely to be most effective at generating a firm interest to change individual farm practice.

Direct contact with other farmers and with technical advisers is usually needed for a farmer to turn a general awareness of new information and advice into a wish to change his own farm practice. Accessibility to sources of direct contact (e.g. within c.50 miles) is important. Implementation at the farm level may or may not require specific one-to-one advice depending on the complexity of the issue and the capability of the farmer.

13. As far as possible, knowledge provision should integrate farm business and EP/CM advice. Information and advice should contain more detail on the financial implications of improved practices for the farm business.

The implications of changes in practice for farm profits is crucially important. Information providers and advisers must be able to assess the implications of proposed changes on the profitability and sustainability of the whole farm business.

14. One-to-one farm advice will often be needed to persuade a farmer to actually change practice where there are complex on farm issues or where a fundamental change in farming attitude is needed.

One-to-one specific advice is commonly needed as the essential final stage for changing EP or CM farm practices since the profit motive is often weak. It can also be useful to persuade a farmer to change a farming approach (e.g. more CM). DEFRA or its contractors should identify the geographic areas and technical issues where existing advisory services are inadequate, and consider ways of ensuring the availability of relevant and affordable on-farm advice.

15. In the short and medium term, electronic sources of information and advice (e.g. websites, CDs, email) should be regarded as supporting rather than primary methods of providing information and advice to farmers, but more important to information providers and advisers.

Although most farmers have access to a computer, email and the internet, it is not currently a popular communication method. However, it is likely to gradually increase in popularity especially as farms get larger and a new generation of farmers emerges who may be more receptive to new technologies. Information providers and advisers are keen to access information electronically and are likely to welcome effective decision support tools. DEFRA should gradually develop electronic information and advice systems which are carefully targeted, avoiding unnecessary complexity and allowing quick and simple to use operating systems.

16. Young farmers and farming students should receive more targeted information either directly or indirectly (i.e. via lecturers).

Young farmers can be very influential and innovative even if they do not have prime responsibility for a farm business. More effort is needed to expand the two-way interaction of agricultural educational establishments, with organisations providing information and advice to practicing farmers.

17. Progress in the implementation of improved practices in targeted areas should be effectively monitored so that the experiences can be publicised and demonstrated to other comparable areas.

The uptake of advice and its effect on farm businesses should be monitored in targeted areas from a baseline position established at the start of a campaign. Carefully structured farm survey work will probably be needed to evaluate farmer reaction to the communication methods used, though the effects of farm practice on independently measurable EP or CM factors could be considered where measurement techniques were sensitive enough (e.g. catchment water quality, landscape and species diversity). Lessons can then be learnt about the communication processes and acceptability of the technical advice. Success stories can be used to persuade farmers to adapt in other comparable areas. Weaknesses in communications approaches can be corrected.

Infra-structure and support measures

18. DEFRA should minimise its visibility in trying to persuade farmers to change practices.

The image of DEFRA amongst farmers is currently poor resulting in a common lack of trust in DEFRA-led advice. Until it can improve its image with farmers, DEFRA should work behind the scenes supporting the activities of a well co-ordinated group of intermediary organisations which have the primary role in the provision of information and advice to farmers.

19. DEFRA should seek to co-ordinate and rationalise the activities of information and advice providers both nationally and also within local or regional areas.

There is an increasing plethora of organisations, materials (e.g. publications) and initiatives promulgating information and advice to farmers. There are dangers of information overload and confusion. Although many organisations are increasingly working together, an industry wide, managed approach at the regional level is recommended. Government Office regions may be the most appropriate level for this co-ordination activity. To assist in this process, DEFRA should consider establishing Regional Knowledge Transfer Consultation Groups along the lines of the Regional Rural Development Consultation Groups. The activities of private companies (e.g. agricultural supply companies) should be recognised.

20. DEFRA should continue to provide financial support to intermediary organisations providing information and advice.

Knowledge transfer is expensive. Targeted support will continue to be necessary if intermediary organisations are to be effective.

21. DEFRA should consider developing a centralised (electronic) system of information and advisory ‘tools’, and ‘sign-posting’, which can be used by organisations and other intermediary bodies, or directly by farmers.

DEFRA should lead the production of standard material, probably in hard and soft formats, that can be used as a single source of reference and further use by the whole industry.

22. DEFRA should take a more active role in developing realistic and practically applicable EP and CM standards for Farm Assurance Schemes.

These schemes are becoming important drivers to encourage EP and CM ‘best practice’ on farms. There is a need to encourage scheme organisers to have an appropriate, balanced and consistent approach to the EP and CM requirements in schemes whilst ensuring that the requirements on farmers are achievable without being unnecessarily onerous. DEFRA should take a lead in achieving this.

23. DEFRA should encourage the development of new professional competency standards including CM, soil management, the design (siting, maintenance and management) of manure handling facilities and the construction of non-grant aided stores.

The BASIS and FACTS schemes provide a valuable standard for professional competency in the use of agro-chemicals and fertilisers. The approach could be extended to other technical areas not adequately covered.