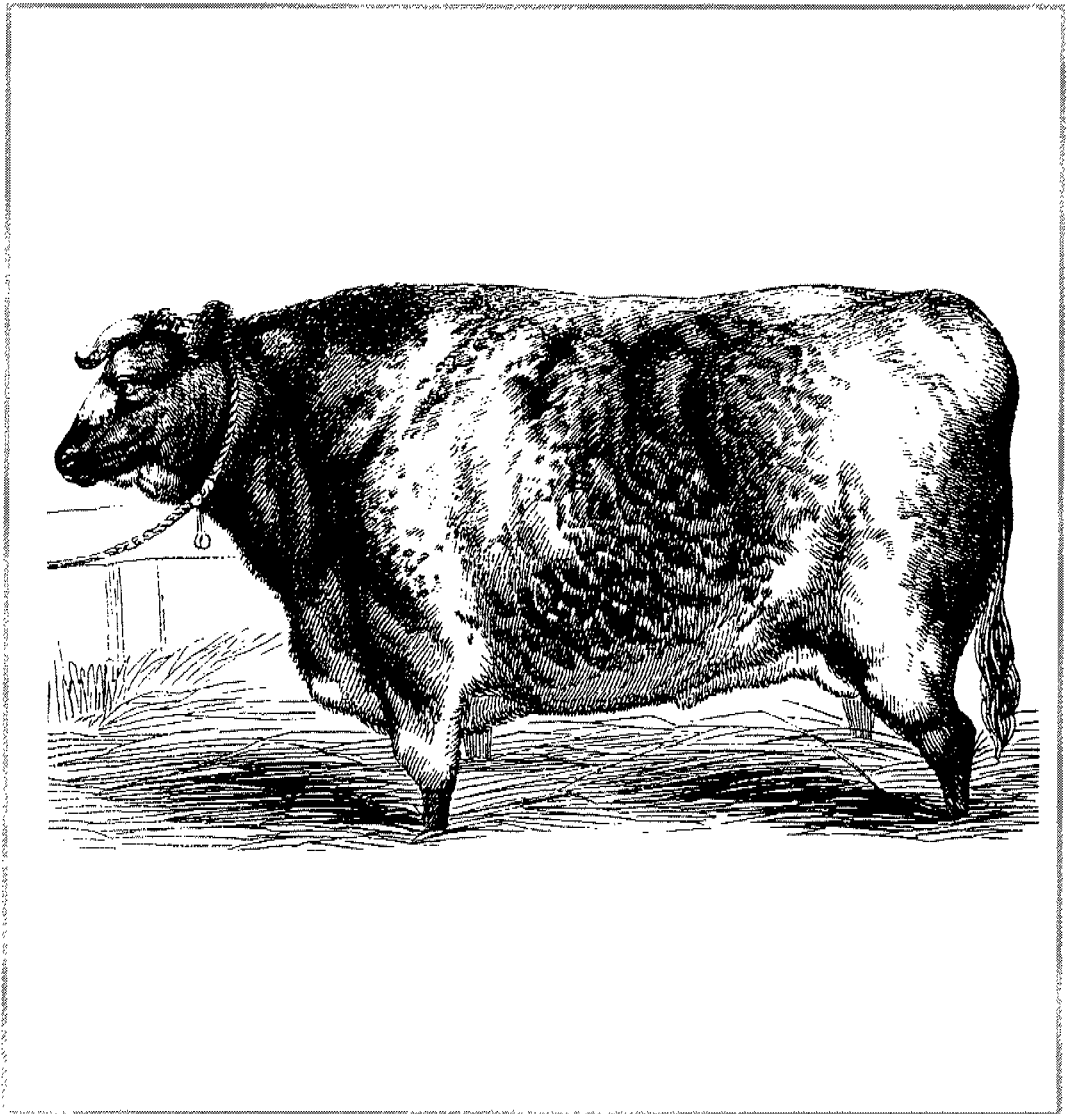




ENGLISH
NATURE

The CAP beef regime in England and its impact on nature conservation

No. 265 - English Nature Research Reports



working today
for nature tomorrow

English Nature Research Reports

Number 265

**The CAP Beef Regime in England
and its impact on nature conservation**

Michael Winter, Nick Evans
and Peter Gaskell

Countryside & Community Research Unit
Cheltenham & Gloucester College of Higher Education

Cover drawing reproduced by kind permission of the Mary Evans Picture Library and Sunday Telegraph

ISSN 0967-876X
© Copyright English Nature 1998

Contents

Executive summary	i
Acknowledgements	vi
1. Introduction	1
1.1 Background to the Project	1
1.2 Research objectives	1
1.3 Research methods	2
1.4 Report structure	2
2. Beef production and the natural environment	3
2.1 Introduction	3
2.2 Traditional beef systems	3
2.3 Productivist agriculture and the post-War development of intensive beef production ..	3
2.4 Post-productivism	5
2.5 Conclusions	6
3. The current CAP beef regime	7
3.1 Introduction	7
3.2 Résumé of current policies in the beef sector	7
3.3 Impact of CAP '92 Measures	8
3.4 The BSE crisis	17
4. Key findings from the farmer survey	19
4.1 Introduction	19
4.2 Survey results	21
4.3 Stocking Rates and Extensification	22
4.4 Quotas	26
4.5 Environmental conditionality	26
5. The importance of beef grazing to SSSI management	27
5.1 Introduction	27
5.2 SSSI study methodology	27
5.3 Information obtained on beef and SSSIs in England	31
5.4 Case studies of beef-conservation relationships	35
5.4.2 Coastal grazing marshes	35
5.4.3 Wet grassland / marsh	39
5.4.4 Lowland Bog	44
5.4.5 Upland moor and heath	45
5.4.6 Lowland Heath	47
5.4.7 Acidic grassland	48
5.4.8 Neutral grassland	49
5.4.9 Semi-improved grassland	55
5.4.10 Calcareous/Neutral Grassland	55
5.4.11 Calcareous Grassland	57
5.5 Synopsis of policy implications from SSSI case studies	67
5.6 Conclusions	70

6.	The current policy context and nature conservation	72
6.1	Introduction	72
6.2	The Natural Areas approach	72
6.3	The impact of current policy	73
6.4	Conclusions	76
7.	The future for the beef regime: future scenarios and alternative policy options	79
7.1	Introduction	79
7.2	Pressures for reform	79
7.3	Decoupling scenarios: Towards a critical assessment	82
7.4	Conclusions	87
	Appendix: Inventory of case study sites	89
	Bibliography	91

List of Figures and Tables

Figures

3.1	Average Market Prices for Male Bovines	9
3.2	UK Finished Cattle Prices 1990-1996	10
3.3	Adult Bovine Animals Slaughtered	10
3.4	Beef Herd 1980-1995	13
3.5	Total Dairy Herd 1980-1995	14
3.6	Sheep 1 year and over 1980-1995	15
3.7	Cattle and Sheep (Lowland): Net Farm Incomes	16
3.8	Cattle and Sheep (LFA): Net Farm Incomes	17
4.1	Proportion of Farms with Beef Enterprise by Farm Type	21
4.2	Distribution of Major Beef Systems	22
4.3	Proportion of Beef farms affected by the introduction of stocking density regulations	23
4.4	Proportion of Beef farms affected by the introduction of stocking density restrictions who now manage their stocking density more carefully	24
4.5	Proportion of Beef farms affected by the introduction of stocking density restrictions who have made an overall reduction in stocking density	24
4.6	Proportion of Beef farms affected by the 1996 stocking density regulations	25
4.7	Proportion of Beef farms claiming the extensification premium	25
4.8	Farmers deliberately changing their livestock management to claim the extensification premium	26
5.1	Guiding Questions for SSSI Case Studies	30
6.1	Major Upland Species: GB Land Cover	74

Tables

3.1	Summary of BSE Special Policy Measures taken after March 20th 1996	18
4.1	Stratification by farm type, farm size and country	19
4.2	The survey response	20
4.3	Date of farm survey by country	20
4.4	Major beef production systems	21
4.5	Distribution of major beef systems by farm type: England	22
5.1	Case Studies by Habitat Type	34
7.1	Policy Goals for a Sustainable Agriculture	82

Executive summary

The primary aim of the project is to assess the impact of policy change in the beef sector on the nature conservation value of Sites of Special Scientific Interest (SSSIs), with the following key objectives:

- To assess the general importance and impact of beef production on the natural environment in England and to identify (as far as possible) where, both spatially and under what circumstances, the management of beef cattle are providing positive, neutral or negative biodiversity outcomes, with particular reference to SSSIs and other sites of conservation importance.
- To identify, as far as possible, the relationship between biodiversity outcomes and the current CAP beef regime.
- To explore possible mechanisms for the integration of environmental objectives more closely into the regime, with particular emphasis on the generation of positive biodiversity outcomes as an explicit rationale behind the policy design.
- To identify the internal and external pressures for further reform of the beef regime and the compatibility and defensibility of recommended mechanisms with such pressures.

Chapter 2 provides a brief commentary on the significance of beef grazing to the conservation resource of England. Beef farming has long been associated with environmentally benign forms of agricultural land management. Many of the cherished habitats and landscapes of England are dependent upon grazing for their ecological and amenity value. Areas of low intensity farming form a unique farmland biotope and in the British Isles such biotopes are almost invariably based on beef grazing regimes. Up until the Second World War, a very high proportion of beef enterprises were associated with low intensity agriculture. A system of mutual dependency between east and west, and with it a long tradition of mixed farming, began to break down in the post-war period as successive Government's policies served to encourage regional specialisation. This in turn led to a range of environmental problems associated with intensification. However, the expansionist policy framework which underpinned these changes has now changed irrevocably through a transition to post-productivism.

Chapter 3 provides an overview of the beef regime policies and examines the impact of the 1992 CAP reforms on the beef sector in general terms. Prices paid to farmers for transferring beef into intervention stores were cut by 15% over three years from 1993/4, with ceilings introduced progressively on intervention purchases from 1993/94 to 1997/98. The Beef Special Premium Scheme (BSPS) pays premiums only on male animals (steers). Claims are further limited to 90 eligible cattle per holding and a regional ceiling operates in England and Wales if claims exceed 940,380 head, whereupon amounts paid to all producers are reduced in proportion to the excess claims. Individual entitlement is restricted by stocking density rules. The stocking density limit has fallen progressively from 3.5 LUs per hectare of forage area in 1993, to 3.0 LUs in 1994, 2.5 LUs in 1995 and 2.0 LUs in 1996. The Suckler Cow Premium Scheme (SCPS) entitlement paid to farmers rearing animals from a beef breed for meat was made conditional on possession of a producer quota, based on the number of animals receiving SCPS payments in 1992. As with BSPS, entitlement depends on compliance with stocking density rules. An Extensification Premium has been made available to producers with a stocking density of less than 1.4 LUs per hectare of forage area, payable on both the BSPS and SCPS. The chapter reports on the price and production trends that have taken place in the beef sector since the introduction of the 1992 reforms. Chapter 3 concludes with some discussion of the policy impact of the BSE crisis.

Chapter 4 draws on the responses to the CAP and the Countryside Project farmer survey. The data are based on farm interviews carried out between November 1995 and May 1996. In total 575 farmers were interviewed out of the original target of 608. Amongst the key findings from the farmer survey are the relatively limited impact that stocking rate rules have had on stocking levels and, even that extensification premiums have been available to a majority of farmers without significant adjustments to stocking levels.

Chapter 5 provides an overview of the case studies conducted of SSSIs where beef grazing plays a significant part in management of the conservation resource. For each key habitat type covered in the survey a synoptic overview is provided.

Synopsis of coastal grazing marshes

- Cattle grazing is essential to establishing the correct conditions to support breeding birds. This is by virtue of an ability to produce swards of different heights and footprint hollows, both of which assist roosting and nesting.
- Sheep grazing prevents incursion by rank vegetation and allows pasture to survive, but the grass sward is too uniform to provide cover for breeding birds. There is also an element of ‘competition’ with geese. Further, potential conflicts with the recreational use of certain Sites are evident, as illustrated at Christchurch Harbour.
- Ownership or management of coastal grazing marshes by wildlife trusts of various descriptions is no guarantee of the future survival of a marsh. This is because trusts depend upon licensing and letting arrangements with graziers. Many graziers are local farmers who may choose to move out of beef and no longer require grass for cattle. This has already occurred at Foulness SSSI as a direct consequence of the BSE crisis.
- Graziers may be available at further distances, but questions arise surrounding the ability to supervise appropriate cattle grazing in specific localities and the sustainability of systems involving movement of animals over long distances.
- Prior to the BSE crisis, agri-environmental policies such as ESAs and Countryside Stewardship acted as ‘holding mechanisms’ for beef enterprises in coastal grazing marshes. Specific aid for beef grazing as an integral part of these schemes now seems necessary to relieve the additional pressure created by the crisis.
- The exposed conditions experienced at the coastal marsh Sites makes hardy beef breeds most suitable for grazing, yet these breeds are effectively discriminated against by the 30 month ruling on beef entering the human food chain. Many hardy breeds take longer than this to mature and provide full economic benefits to the farmer. A government review of this situation is necessary.

Synopsis of wet grasslands/marsh

- In terms of grassland management, it appears that grazing by sheep could produce similar outcomes to those of cattle in a significant number of Sites. Mixed cattle and sheep grazing appears to provide optimum conditions for the mosaic of swards it creates.
- The major problem is one of animal husbandry in these habitats, as sheep are less able to withstand the wetter conditions presented by Sites. For example, sheep would not be able to graze at Woolcombe or Mugginton Bottoms. Further, where initial management of a Site depends upon the removal of rank vegetation, cattle grazing is the only practical approach. In some cases, as at Mercaston Marsh, dairy derived stock provide inadequate grazing and particular traditional breeds of hardy cattle are required to clear and maintain a Site in good condition.
- Potential future problems associated with wildlife trusts recruiting sufficient graziers to continue management of Sites along traditional lines have again been identified (as discussed under ‘coastal grazing marshes’).
- Agri-environmental policies (ESAs and Countryside Stewardship) appear to have had minor and *ad hoc* ‘on the ground’ impacts by persuading farmers to continue with cattle, or even in some cases in

the South Downs ESA and on the Nene Washes, assisting conversion from arable to grass-based enterprises. Unfortunately, just when the impacts of agri-environmental initiatives are finally being observed, the BSE crisis has reduced the attractiveness of the farming systems they support. An enhancement in the competitiveness of payments seems necessary.

- Overall, it can be suggested that the drying out of sites due to post-war agricultural improvement, primarily through pump drainage schemes and water abstraction, exacerbated by recent winter droughts, represents a greater immediate threat to this habitat type than a change in the grazing regime from beef to dairy or sheep.

Synopsis of upland moor and heath

- While cattle grazing may not be absolutely vital to the main conservation interests of upland moor and heath SSSIs, more cattle and fewer sheep would help to maintain heather communities.
- The main benefit of cattle grazing lies with creating a diversity of habitat and thus interest in the SSSI, especially around the margins of land in a transitional zone between pasture and heather. Cattle grazing provides opportunities for waders to breed where agricultural intensification in the lowlands has pushed them into the uplands.
- Ownership patterns in the upland SSSI case studies are complex, involving a large number of owner-occupiers over a large area. Impressions of changes and pressures have been gained, but extensive farm survey work seems especially important to obtain a detailed understanding of upland beef farming systems.
- Farmers tend to contemplate change, in this case manifest as a movement out of beef enterprises, but show a general reluctance to actually 'take the plunge' and implement modifications. Even in the event of the BSE crisis, many farmers seem prepared to take a medium-term perspective and sit out the short-term disadvantages experienced.
- The operation of agri-environmental measures is important as they facilitate limits on the expansion of sheep enterprises, which would otherwise be a logical way for farmers to compensate for the falling value of beef cattle. Participation stems intensification and prompts modifications of stocking management.

Synopsis of acidic grassland

- Cattle grazing is vital to maintain the nature conservation interest of all acidic grasslands investigated. This is because they are able to access wet areas often associated with this habitat type which sheep are not. At Kings and Bakers Wood, continuation of cattle grazing is also necessary for the rare fungi.
- Cattle are the most efficient management tool to help control invasion by scrub and rushes, and Sites are already showing signs of deterioration where numbers have been reduced for commercial reasons.
- The emphasis in these areas is very much on maintaining what is left rather than improving Site quality.
- Agri-environmental policy has been demonstrated to play a useful role in ensuring stability of grazing on Sites.
- The Bedfordshire case studies reveal that the nature conservation interest of more than one Site can depend upon just one grazier. Attention is thus drawn to the potential vulnerability of some Sites to changes in the beef market and farmers' personal preferences.

Synopsis of calcareous grassland (including calcareous/neutral grassland)

- An evaluation of the diverse case studies encountered indicates a very fine balance between tendencies to overgraze and undergraze sites.
- Overgrazing causes a decline in sward quality, often associated with high stocking rates of sheep, and poaching caused by cattle. Stocking in winter increases the poaching risk and supplementary feeding leads to problems with nutrient enrichment.
- Undergrazing is the dominant problem on eight out of the thirteen calcareous grassland SSSIs investigated (a trend observed on neutral grassland Sites). This has led to scrub invasion, reflecting withdrawal of grazing from Sites for reasons which include lack of profitability of beef (especially in farming upland allotments), pressure from urban uses (recreation and traffic) and failure to exercise commoners rights. Although some scrub is desirable in places, such as where it provides breeding cover for downland birds or is of benefit to tall herbs and invertebrates, there remains a threat to grassland diversity.
- The main advantage of beef cattle grazing is to promote diversity of sward heights in these SSSIs. In turn, a wider variety of invertebrate interest is typically supported. The ideal situation is grazing beef cattle in conjunction with sheep. Sheep are often more readily available than beef cattle and also reflect farming systems that are traditional to many localities investigated (for example, upland limestone areas and chalk downs).
- Active scrub clearance appears to have been recently implemented on most Sites. There is some use of livestock on calcareous grasslands for removing scrub, although there is clearly potential to expand this approach. Manual clearance tends to be favoured as an 'immediate fix', often supported by a combination of Countryside Stewardship and 'top-up' Wildlife Enhancement Scheme agreements where specific management is required.
- The importance of particular individual graziers is highlighted. In the cases of Warton Crag and Arnside Knott, one grazier is vital to the maintenance and restoration of the SSSIs, even though the Sites occur in different EN Regions!
- Similarly, the Lewes Downs (case 40), Lewes Brooks (case 8) and Giant Hill (case 37) examples indicate how certain individual farmers (with a less than ideal approach to nature conservation) offer the best available grazing solution and have an instrumental role in safeguarding the interest of Sites. Vulnerability to change derived from instability in the beef market and individual farmer preference over agricultural business enterprises is therefore a major cause for concern.

Chapter 6 draws together the linkages, benefits and disbenefits of the relationship between the current policy context and nature conservation. In seeking to establish a framework for discussion the chapter draws on Tilzey's characterisation of the principles underlying the Natural Areas approach with its intrinsic acceptance of the need to move away from an over-emphasis on site specific conservation policies. The Natural Areas approach attempts to place site policy in a more appropriate broader context and fundamentally to shift the focus of English Nature's activity towards a whole countryside approach.

Livestock are essential to the maintenance and management of grassland habitats. Moreover, particular categories, and even breeds, of livestock are especially well suited to particular assemblages of vegetation. As indicated earlier in the report, post-war agricultural policy has prompted three interlocking trends in the livestock sector which have had a severe impact on the management and maintenance of conservation sites. The chapter considers the extent to which current policy (including BSE policies) promotes:

- regional and on-farm *specialization* leading to a decline in livestock numbers in some places and a dramatic increase elsewhere;

- increased *intensification* of production whether on grassland or arable land;
- fewer and more *specialist breeds* of livestock adapted to modern intensive conditions.

Thus it is shown that the future management of nature conservation sites is critically bound up with CAP policies for beef (as well as other commodity regimes). The development of Natural Areas profiles provides a framework for defining priorities for the future development of policy which takes into account the crucial relationship between agricultural policy and nature conservation outcomes.

Chapter 7 turns to a consideration of future policy. It examines current pressures for the reform of the CAP based on three key strategic options:

- *Scenario 1*: a weak decoupling or adjustment of production support with ancillary and specific agri-environment measures.
- *Scenario 2*: a moderate decoupling of production support to direct payments recoupled to environmental and social objectives.
- *Scenario 3*: a radical decoupling (dismantling) of all commodity support complemented by targeted specific environmental (and social) measures to address consequential environmental problems.

These scenarios are considered against a set of policy objectives for a sustainable agriculture. It is concluded that the measures required for the beef sector cannot be equated simply with policies to promote extensification linked to decoupled payments. The beef sector exemplifies a farming sector where such broad brush policies are as unlikely to lead to environmental benefit as earlier policies that encouraged intensification of production. Reforms are required which allow the development of policies sensitive to the requirements of particular sites and natural areas. This requires a close inter-meshing of sectoral policies. Crucially, it is impossible to consider agri-environment policy in isolation from commodity policies. By the same token, the beef sector cannot be considered in isolation from the sheep or dairy sectors. There is a clear need to formulate policies with a greater concern for securing sustainable agricultural and environmental management regimes within a moderate decoupling scenario. It is vital to ensure an articulation between, on the one hand, decoupled (Green Box) payments for environmental management and, on the other hand, a dismantling of commodity regimes undertaken in such a way as to achieve a return to mixed farming patterns. At the local level, there would have to be a mechanism to facilitate targeted management objectives, sometimes even on an on-farm scale.

The legacy of IACS might provide a useful mechanism for achieving this kind of objective and ensuring adequate monitoring. Alternatively, it would be possible to build on the tiered approach of ESAs so that virtually all farmers would be located in an ESA equivalent tier 1 as part of the decoupling process, with many encouraged to opt for higher tiers, especially within target Natural Areas. Underlying all such policy adjustment is the need for tough regulation to ensure that sustainable practices are adopted on farms. This would include a further toughening of pollution controls, covering diffuse pollution, and the strengthening of Codes of Good Agricultural Practice and making them compulsory.

Acknowledgements

The authors are grateful to Elizabeth Orme for her assistance in conducting some of the SSSI case studies, to Virginia Hawkins for help in the early stages of the project, to Julie Higginbottom for conducting telephone interviews with farmers to supplement the case studies, and to Professor Paul Selman of the CCRU for his comments on the draft report. We also acknowledge the patience and support of Mark Tilzey and Gerry Hamersley of English Nature and the many English Nature Conservation Officers and other staff who answered our queries and provided information. A number of farmers on SSSIs also provided assistance by answering our questions. Chapter 3 of the project draws deeply on the CAP and the Countryside Project sponsored by the Countryside Commission, the Countryside Council for Wales, the Department of the Environment, Transport and the Regions and Scottish Natural Heritage. We are grateful to Alastair Rutherford of the Countryside Commission for permission to use this data and for his guidance and support in that project.