ECONOMIC EVALUATION OF THE BRITISH POTATO COUNCIL

FINAL REPORT

RURAL BUSINESS UNIT
UNIVERSITY OF CAMBRIDGE
September 2004

TABLE OF CONTENTS

ABBREVIATIONS

AEV Advertising Equivalent Value
BPC British Potato Council
CA Controlled Atmosphere
CCFRA Campden & Chorleywood Food Research Association
CIPC Chlorpropham (synthetic sprout inhibitor)
CSL Central Science Laboratory
CUF Cambridge University Farm
Defra Department for Environment, Food and Rural Affairs
DOH Department of Health
FAHAP Food and Health Action Plan
FSA Food Standards Agency
FYM Farm Yard Manure
GB Great Britain
GIS Geographical Information System
HGCA Home Grown Cereals Authority
HMR Home Meal Replacements
HRI Horticulture Research International
IACR Institute of Arable Crops Research
IRS Internal Rust Spot
LCA Life Cycle Assessment
MDC Milk Development Council
MITT Market Information and Technology Transfer
MLC Meat and Livestock Commission
MRL Maximum Residue Level
NIAB National Institute of Agricultural Botany
ONS Office of National Statistics
PAL Personnel, administration and legal services
PCN Potato Cyst Nematode
PIDC Potato Industry Development Council
PPA Potato Processors Association
PSD Pesticides Safety Directorate
R&D Research & Development
SAC Scottish Agricultural Cottage
SAFFIE Sustainable Arable Farming for an Improved Environment
SASA Scottish Agricultural Science Agency
SBEU Sutton Bridge Experimental Unit
SCRI Scottish Crop Research Institute
SEERAD Scottish Executive Environment and Rural Affairs Department
SNS Soil Nitrogen Supply
SSG Seed Sectoral Group
TRV Tobacco Rattle Virus
UK United Kingdom
USPB United States Potato Board
VTSC Virus Tested Stem Cutting

1. INTRODUCTION, OBJECTIVES & METHODOLOGY

Introduction

1.1 Development councils established under the Industrial Organisation and Development Act 1947 are reviewed in five yearly intervals after their initial review, after coming into effect, has been carried out.

1.2 In April 2004, the Department for Environment, Food and Rural Affairs (Defra), in agreement with the Scottish Executive Environment and Rural Affairs Department (SEERAD) and the Welsh Assembly Government, commissioned the University of Cambridge to undertake an independent economic evaluation of the British Potato Council (BPC). The final report will contribute towards the first stage of the review process.

Objectives

1.3 The overall objective of this project is to provide an economic evaluation on each of the four key areas of operation the BPC undertakes, namely; research and development (R&D); knowledge transfer (KT); promotion activities as defined in the Order; and the collection and dissemination of statistics. However, one key factor which must be taken into account is that some aspects are more directly measurable than others. For example, the cost associated with the collection and coverage of the levy can be ascertained relatively easily, whereas finding a balance, in an economic sense, of some of the other BPC activities, is much harder to assess.

Methodology

1.4 In order to achieve theses objectives, five approaches for gathering key data have been employed:

- Examination of BPC documentation and literature
- Evaluation of procedures for determining allocation of resources
- Discussions with BPC representatives
- Interviews with industry representatives
- Surveys of growers; merchants, packers & processors; and consultants & agronomists

Outline of methodology for each specific objective

1.5 The following describes the methodology adopted to achieve the objectives set out for each of the four main areas of the BPC's operation.

i). *The nature and current extent of any market failure;*

1.6 In order to consider the concept of market failure and how it relates to the BPC, a detailed analysis of the BPC's operations was carried out to assess whether they are fulfilling functions that would otherwise not be provided or would be provided at a level that was less than socially optimal. This approach was supported through discussions with key individuals in the potato supply chain. A feature of this analysis is the consideration as to whether the relatively large structural change in production that has occurred undermines the economic rationale of the BPC.

ii). *The suitability of the policy instruments adopted, taking into account subsequent market developments in the production and distribution of potatoes;*

1.7 To achieve this objective, the policy instruments adopted by the BPC were related back to their stated aims and objectives. Part of this analysis considers how the BPC's policies have changed as the needs of the industry have changed. This involves detailed analysis of available documentation and discussions with key individuals representing the different sectors as to their views on the appropriateness of the policy instruments adopted.

iii). *The impact of the BPC's activities on the industry and the value for money that these activities represent;*

1.8 A number of approaches were adopted to assess the impact of the BPC on the industry. These include the conducting of surveys to ascertain the level of awareness of and views on the usefulness of current activities of the BPC.

1.9 Value for money can take a number of forms and therefore was assessed in the following ways:

- The views of those paying the levy and others in the industry were investigated.
- The question of additionality was addressed by considering whether any specific operations, undertaken by the BPC, would have been undertaken in its absence (additionality).
- Investigation into whether the activities of the BPC are in fact leading to economic benefits to the industry. Whilst it was not possible within the scope of this study to evaluate empirically much of the activity of the BPC (for example the impact of potato promotion on demand), investigation was undertaken to examine whether the BPC has mechanisms in place to effectively evaluate its operations.

iv). *The levy arrangements, in terms of operations and scope and possible improvements;*

1.10 Since the last review, the levy collection arrangements have undergone a reform. It has now been a year since the new arrangements have come into place and it is therefore a potentially good time to evaluate the new system. Amongst other factors, the evaluation considers:

- The effectiveness of the levy collection system in terms of percentage covered (this data will be obtained from the BPC)
- The costs associated with collecting the levy (this data will be obtained from the BPC)
- The fairness of the system (grower and industry views)
- Any possible improvements (grower and industry views)

v). The current performance indicators relating to the achievement of policy objectives, especially with regard to measurability and significance;

1.11 A key feature in assessing the BPC is examination of how effectively they assess themselves. Therefore their internal performance indicators are evaluated in terms of how measurable they are and their relevance to their policy objectives. Where appropriate, improvements to this process will be suggested.

vi). *Efficiency and possible improvements to cost effectiveness.*

1.12 An examination into the extent that the BPC ensures that it operates as efficiently and as cost-effectively as possible is undertaken. This involves finding any evidence of efforts to control costs and to find out to what extent activities are subjected to effective cost assessment.

2. BPC BACKGOUND & OUTLINE OF OPERATIONS

Introduction

2.1 The BPC was established by the Potato Industry Development Council (PIDC) Order 1997 under the Industrial Organisation and Development Act 1947 and came into being on 1 July 1997. Its main functions are to:

- Collect the levy from all eligible producers and purchasers
- Fund research and development (R&D)
- Transfer technology (knowledge transfer)
- Collect and disseminate market information
- Advertise and promote potatoes to consumers domestically and internationally

2.2 This work is funded by industry levies which are collected from GB potato growers and purchasers. These levies are directly proportional to the area planted and amount purchased respectively.

2.3 The Council consists of 16 members appointed jointly by Ministers who are directly responsible for agricultural issues. The constitution of the Council, which was determined by the PIDC Order, is as follows:

a). Twelve persons capable of representing industry interests. Of these, nine members will be growers whilst three will represent the industry beyond the farm gate. One of the growers must be a specialist seed producer, and will also be the Chairman of the Seed Sectoral Group (SSG) (see below).
b). One person capable of representing the interests of industry employees.
c). One person with specialist knowledge of marketing or distribution of industry products.
d). Two persons, including the Chairman, who are independent.

2.4 The BPC also has the following committees in place:

Marketing and communications: Develops the BPC's marketing and communications strategy and makes recommendations to the BPC. Communicates aims and objectives to the staff team and monitors achievements against objectives ensuring they are within agreed budgets.

Research & Development: Develops the BPC's R&D strategy and reports to the BPC; commissions research projects, in line with industry requirements and within agreed budgets; encourages and monitors the uptake of published research results.

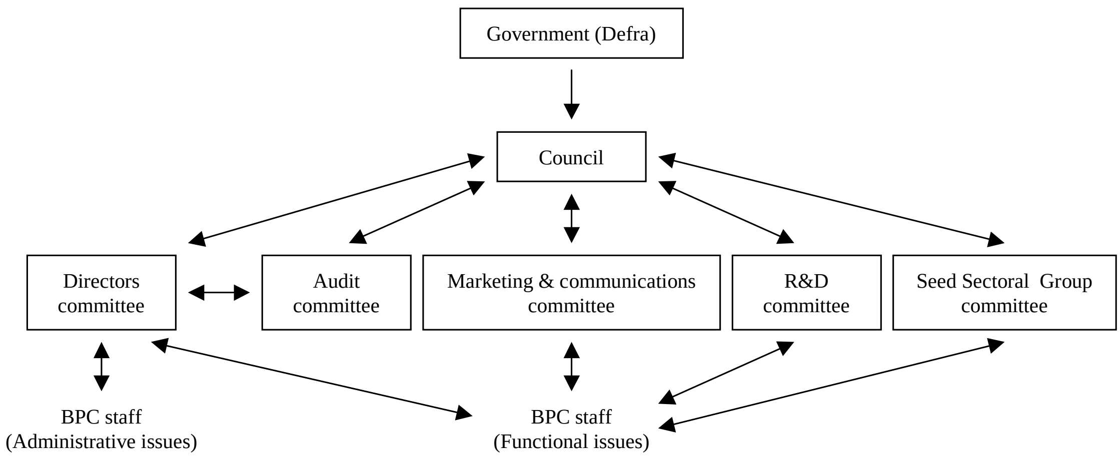
Audit: Monitors the BPC's operations and ensures that these are conducted in accordance with statutory requirements and best practice; to promote the highest standards of accountability, financial reporting and propriety in the use of funds; and ensures that appropriate financial disciplines and internal control systems are in place.

2.5 There is also a working group on market information, which meets on a regular basis, whilst other groups and working parties are set up ad hoc, to deal with particular issues as they arise.

2.6 The **Seed Sectoral Group (SSG)** is a statutory committee set up by the BPC. It is responsible for reporting to the BPC on how its functions should be carried out in relation to the seed sector of the industry. The SSG is chaired by a person who has been appointed to the BPC by virtue of being a specialist seed potato producer.

2.7 The following diagram (Figure 2.1) shows the BPC's operational structure.

Figure 2.1: The BPC's operational structure



2.8 The BPC has the following mission statement:

Mission
The British Potato Council's mission is to stimulate, promote and develop Britain's potato industry to ensure the consistent supply of safe, competitively priced potatoes and potato products that satisfy our customers.

Vision
The British Potato Council's vision is an industry that is open-minded, innovative and actively working together for common goals.

Objective
The British Potato Council's objective is to increase consumption of British fresh and processed potato products by making our industry more competitive

and producing to an industry protocol covering all aspects of consumer assurance and food safety.

How?
The BPC will strive to meet the needs of the whole industry, employees and consumers; to deliver effective programmes of R&D, market development and market information and then actively communicate the results. Our success will be the incorporation of this output into production practices.

Levy payment

2.9 Under the PIDC Order 1997 (as amended), producers and purchasers of potatoes are required to register with the BPC, provide details of their potato plantings or purchases and to a pay a levy.

2.10 The PIDC (Amendment) Order 2002, which came into effect in 2003, introduced a two-tier system of levy rates, consisting of an ordinary rate for payments received by the due date and a higher rate for payments received after the due date which applies both to producers and purchasers.

2.11 Registration thresholds are currently three hectares for producers and 1,000 tonnes for purchasers whilst a system of voluntary registration was introduced for smaller businesses who wish to take advantage of BPC services, information, etc.

2.12 The producer levy rate for 2002 was £40 per hectare and was subject to a prompt payment discount of £1. Invoices are issued in September with payment due by 1st November. The potato purchasers' levy for 2002/03 was 17 pence per tonne, invoiced quarterly in arrears and is based on monthly returns of tonnage purchased. Purchasers who do not make monthly returns are invoiced according to estimated tonnage and adjustments are made when actual returns are received. A system for estimating plantings, where producers have failed to make area returns is also in place.

2.13 The total amount of levy payments for 2002/03, before any prompt payment discounts, can be seen in Table 2.1.

Table 2.1: Total levy payments made to the BPC for 2002/03

	No. of levy payers	Total area (ha)	Total tonnage	Total levy paid (£)
Producers	5,500	129,939	-	5,197,582
Purchasers	882	-	Not given	1,014,500

Source: BPC Report & Accounts, 2002/03
Note: Figures for purchasers are estimates as at the time of writing the annual report, not all payments had been collected.

Corporate Plan

2.14 A major strategy review was undertaken during 2002/03. This took the form of a Corporate Plan, 2003/04-2005/06 which covers a three-year period that started on 1 July 2003. It states that fundamentally, there are only two primary factors that will affect the future success of the GB potato industry:

1. Continued demand for potatoes and potato products.
2. GB potatoes (as opposed to those from global competitors) fulfilling that demand competitively.

2.15 To meet these two factors (usage and competitiveness), the BPC has implemented 16 Action Plans (Table 2.2).

Table 2.2: Action Plans and target outcomes taken from the BPC's Corporate Plan, 2003/04 - 2005/2006

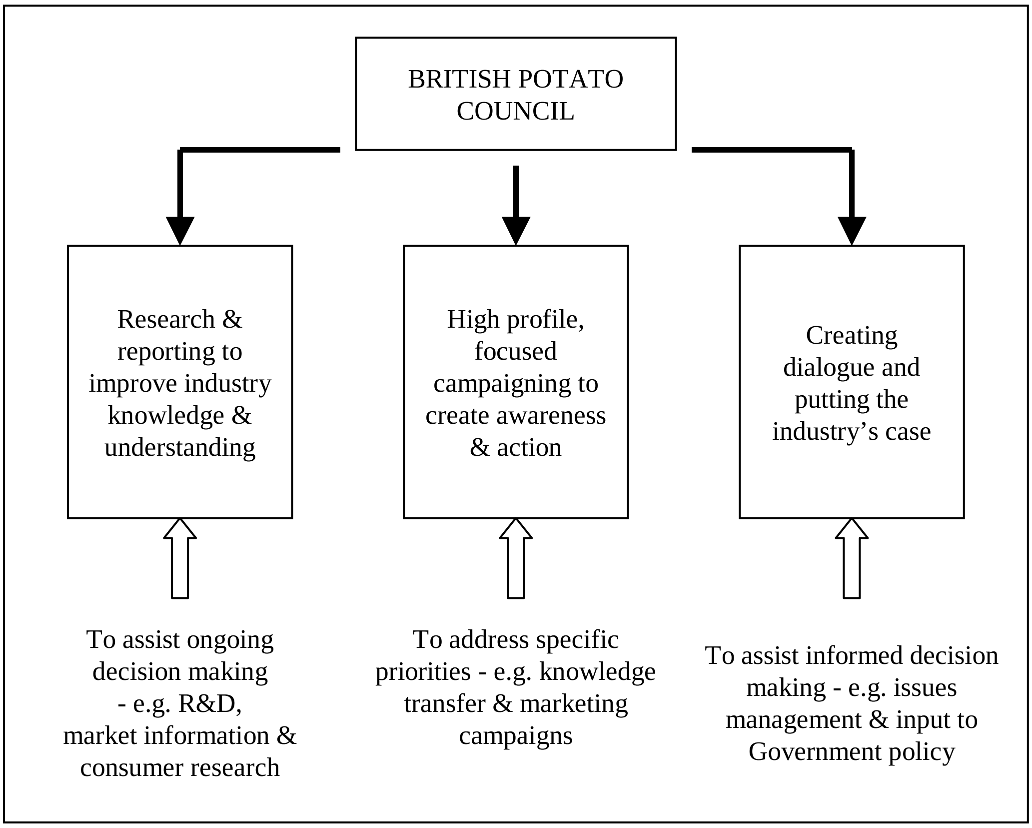
Action Plan	Target Outcome
1. Understanding the business environment for potatoes	The outputs of the BPC demonstrate a full understanding of the critical issues affecting the British potato industry, including size of market, supply and demand dynamics and macro business environment and can be used by industry to shape its future.
2. Improving industry knowledge and technique	Industry responds pro-actively to BPC communication activities and, in the case of knowledge transfer, implements the recommendations communicated.
*Priority challenges affecting **product specification** and therefore **competitiveness***	
3. Size and Uniformity	Development and industry adoption of technologies that increase the efficient, timely production of uniform crops within size bands specified by end markets.
4. Pest and disease status	Development and communication of recommendations for best practice, based on sound scientific evidence, to minimise the impact of pests and diseases of crucial commercial significance.
5. Processing quality	An improvement in processing quality to increase the proportion of GB potatoes meeting supply chain requirements throughout the season.
6. Residues	Co-ordination of cross-industry approaches that do not compromise the environment and or consumer interests, which will assist residue minimisation by improved agronomy and storage techniques.
7. Seed	Reduction in production costs for quality GB seed and increased usage by GB ware growers.
8. Storage	Delivery of practical storage information influencing quality storage regimes designed to meet customer requirements.
9. Bruising and damage	Communication of existing knowledge and development of new techniques to facilitate adoption of best practice by the industry and improvement in the proportion of GB crop meeting quality targets by reducing the incidence of bruising and damage.

*Priority challenges affecting **price** and therefore **competitiveness***	
3-9. Marketable yield	Covered elsewhere - see Action Plans 3 - 9
7. Seed	Covered elsewhere - see Action Plan 7
10. Labour, business management and training	Reduction of industry costs by assisting the industry to improve core skill levels through identification of cost-effective training and by reduction of unnecessary duplication in handling common tasks such as health and safety compliance.
11. Water	Continued industry access to affordable water.
*Priority challenges affecting **seed usage***	
12. Use of GB seed versus others	Increased usage of good quality GB potato growers, measured by a reduction in imports.
13. Phytosanitary and other trade barriers	To have established seed exports to specific BPC target countries where GB seed was not previously accepted.
*Priority challenges affecting **food usage***	
14. Food service	Development and communication of data to improve industry understanding of purchasing criteria in the food service sector (as a foundation for maximising usage of potatoes on food service menus).
3-9. Right quality	Covered elsewhere - see Action Plans 3 - 9
15. Demographics and lifestyles affecting eating habits	The industry responds to changing consumer demands through uptake of BPC research.
16. Generic promotion	Integrated promotional activity, created by the BPC and built upon by industry, which is based on key consumer drivers and increases usage. When faced with a major issue likely to affect usage, the interested parties are briefed, consulted and involved in determining actions.

Source: BPC Corporate Plan, 2003/04-2005/06

2.16 Under the new strategy, BPC activities fall into three broad categories (Figure 2.2)

Figure 2.2: BPC activities according to its new strategy



Source: BPC Report & Accounts, 2002/03

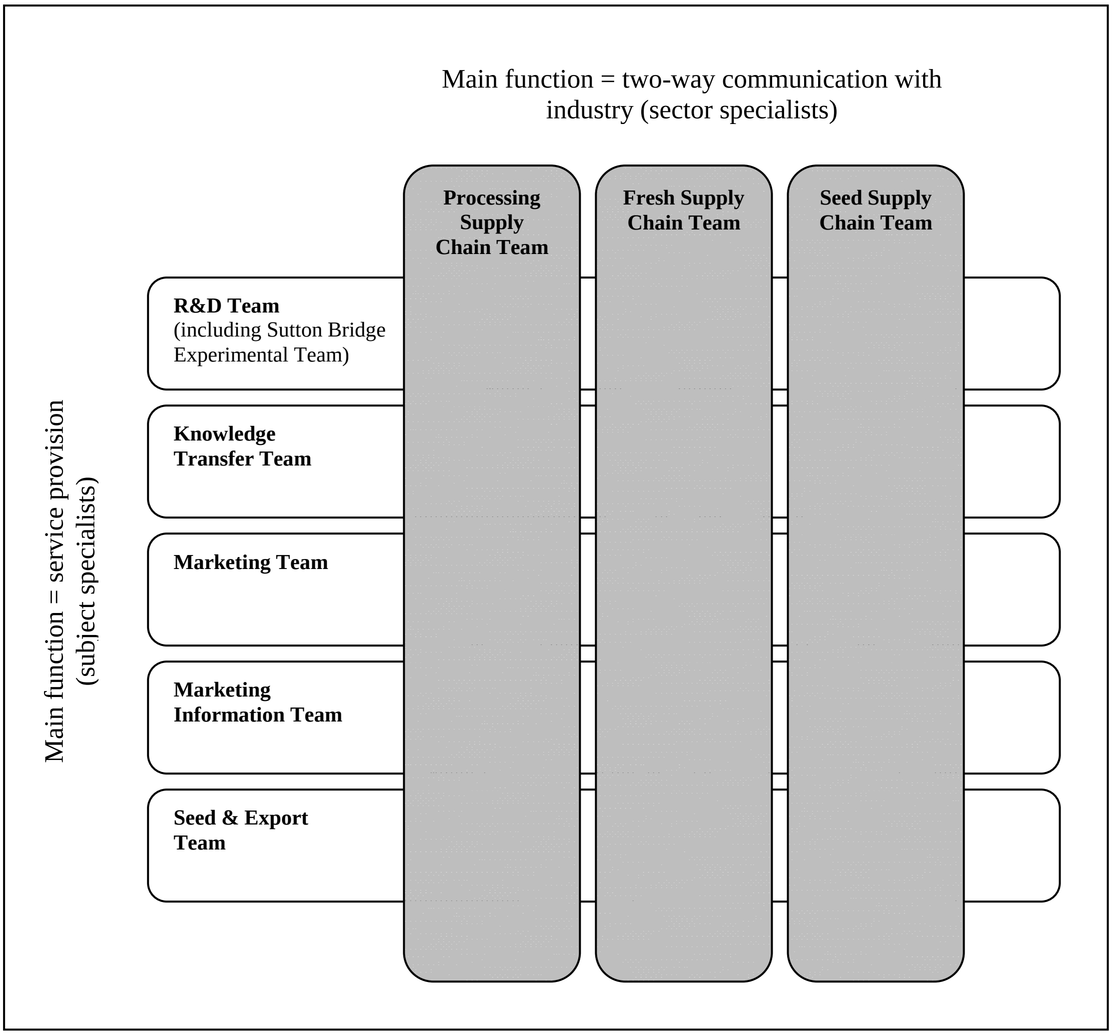
Restructuring BPC resources and staffing to ensure tangible delivery against objectives

2.17 In order to achieve these objectives, the BPC has reorganised its staff structure, with the stated aims that it places greater emphasis on communication and to reflect the industry's increasing consolidation into supply chains servicing distinct sectors of the market.

2.18 By doing so, three supply chain teams - processing, fresh and seed & export - now interact with levy payers according to what they grow or supply, rather than where they were based which was the case with the former field team (Figure 2.3).

2.19 The BPC hopes to improve the flow of information from BPC subject specialists to all parts of the industry supply chains, therefore giving them greater input into the BPC's strategy.

Figure 2.3: BPC staff restructuring diagram



Source: BPC Report & Accounts, 2002/03

BPC Income & Expenditure

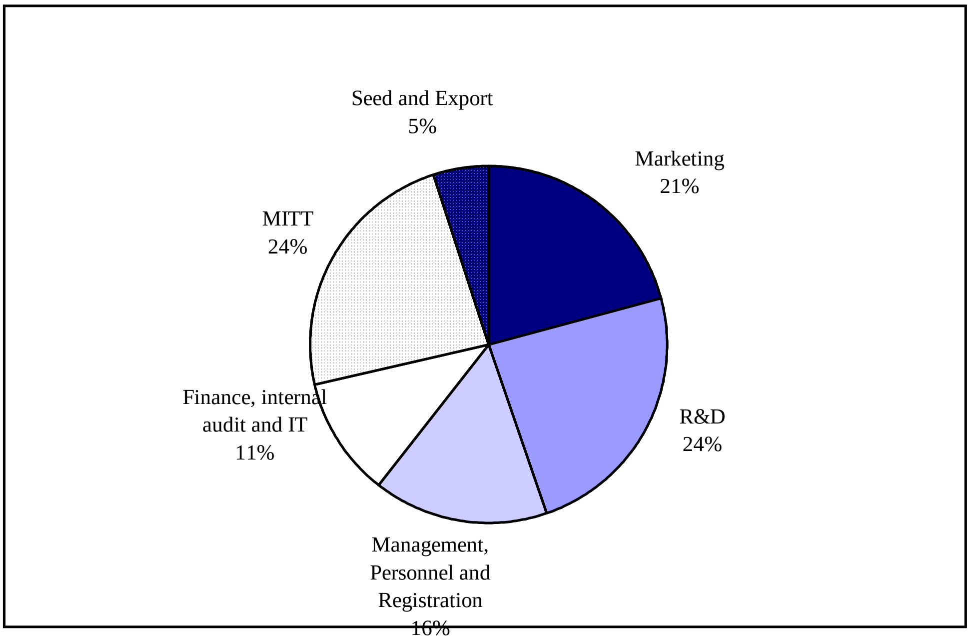
2.20 The BPC had a total income of £6.6 million for 2002/03 with the main area of expenditure being marketing and communications which accounted for almost half of the expenditure budget (Figure 2.4). The only significant changes between 2001/02 and 2002/03 were increases in income, which rose by 7.7 per cent, and R&D which rose by 6.1 per cent (Table 2.3).

Table 2.3: The BPC's income and expenditure for 2001/02 and 2002/03

	2001/02	2002/03	% change
Total income	*6,139*	*6,611*	*+7.7*
Marketing and communications	3,244	3,122	-3.8
R&D	1,460	1,549	+6.1
Management, personnel and registration - basic costs	1,002	1,017	+1.5
Finance, internal audit and information technology	694	691	-0.4
Total expenditure	*6,400*	*6,379*	*-0.3*

Source: BPC Report & Accounts, 2002/03

Figure 2.4: The BPC's total expenditure for 2002/03

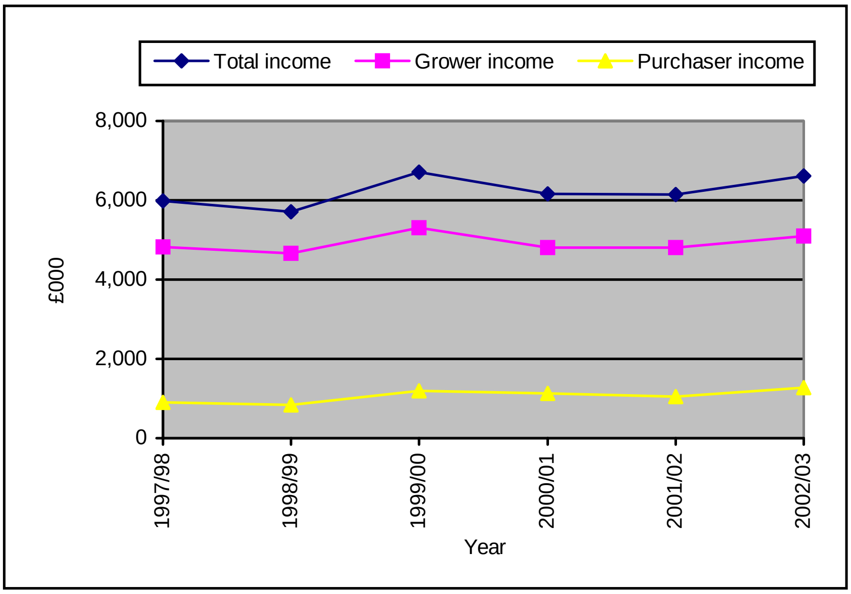


Source: BPC Report & Accounts, 2002/03

Income

2.21 From Figure 2.5, it can be seen that the majority of the BPC's income comes from the growers' levy payment which accounts for between 77 and 82 per cent of the total income. The slight increase of total income seen in 2002/03 is due to the increase of area levy, growers had to pay, from £36.50 per hectare in 2001/02 to £40.00 per hectare in 2002/03 and an increase in tonnage levy, purchasers had to pay, from 15 pence per tonne in 2001/02 to 17 pence per tonne in 2002/03. It should also be noted that the BPC also receives income from the sale of statistical information which amounted to £105,000 in 2002/03.

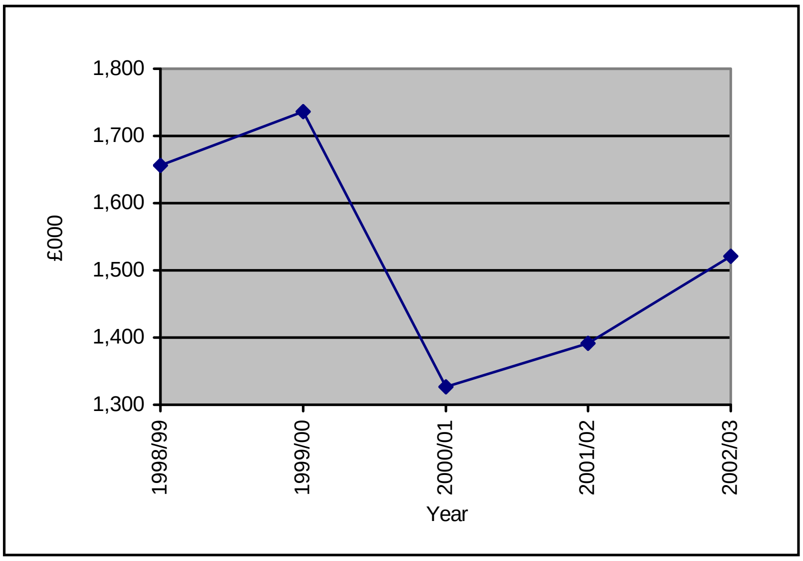
Figure 2.5: The BPC's income



R&D expenditure

2.22 R&D expenditure experienced a sharp decrease in 2000/01 which was probably a knock-on affect from the decrease in the BPC's total income for that year (Figure 2.6). £1.52 million was spent in 2002/03 which accounted for 32 per cent of the total front line[1] expenditure, the second highest proportion.

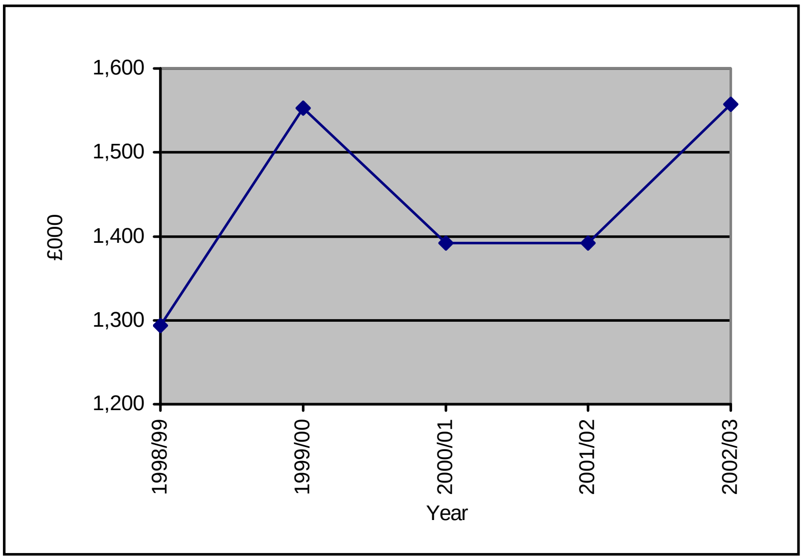
Figure 2.6: The BPC's R&D expenditure



Market Information & Technology Transfer (MITT) expenditure

2.23 MITT expenditure reached a maximum of £1.56 million in 2002/03 which accounted for 33 per cent of the total front line expenditure, the highest proportion (Figure 2.7).

Figure 2.7: The BPC's MITT expenditure

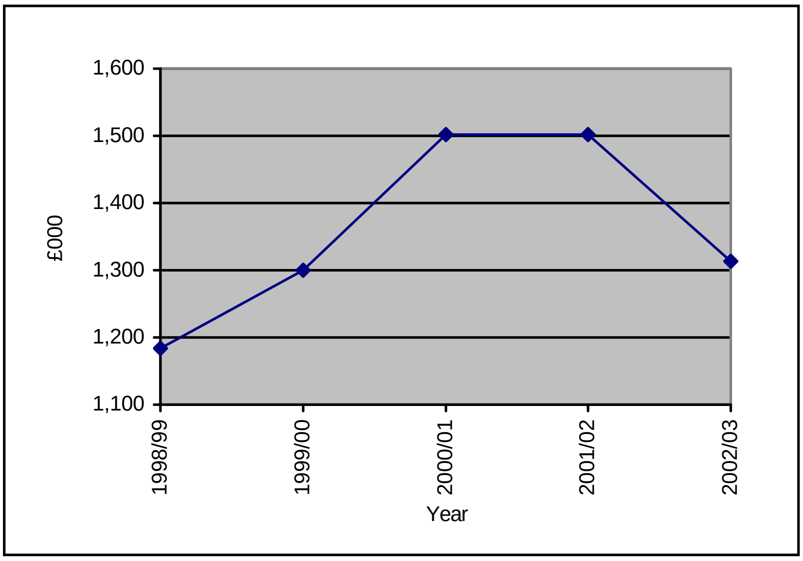


[1] Front line expenditure relates to value adding activities such as R&D, marketing and market information.

Marketing expenditure

2.24 Marketing expenditure experienced a decrease in 2002/03, from £1.50 million in 2001/02 to £1.31 million in 2002/03 but still accounted for 28 per cent of the total front line expenditure, the third highest proportion (Figure 2.8).

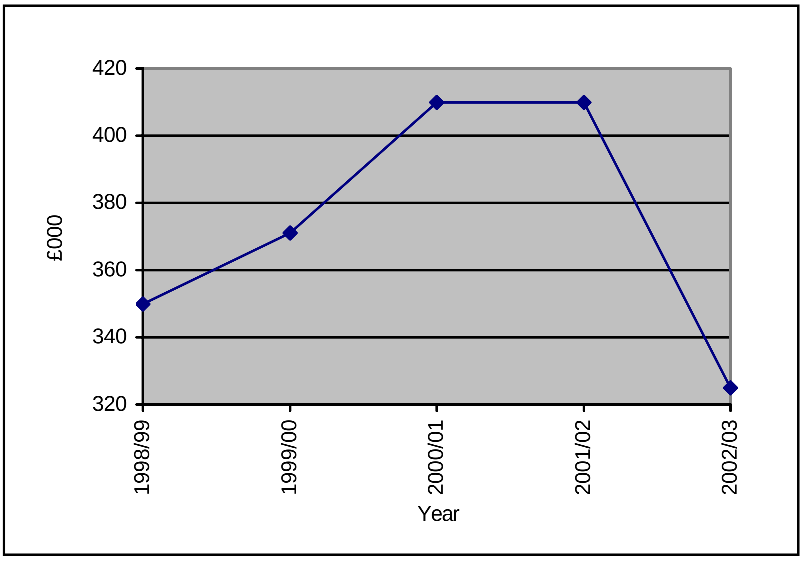
Figure 2.8: The BPC's marketing expenditure



Seed and export expenditure

2.25 Seed and export expenditure also experienced a decrease in 2002/03, from £410,000 in 2001/02 to £325,000 in 2002/03 which accounted for 7 per cent, the lowest proportion of frontline expenditure (Figure 2.9).

Figure 2.9: The BPC's seed and export expenditure



Overhead and support function costs

2.26 The BPC's overhead and support function costs increased from £1.51 million in 2001/02 to £1.67 million in 2002/03 (Figure 2.10). This increase is thought to be mainly due to an increase in rent on the BPC's premises in Oxford. A breakdown of the overhead and support function costs can be seen in Figure 2.11.

Figure 2.10: The BPC's overhead and support function costs

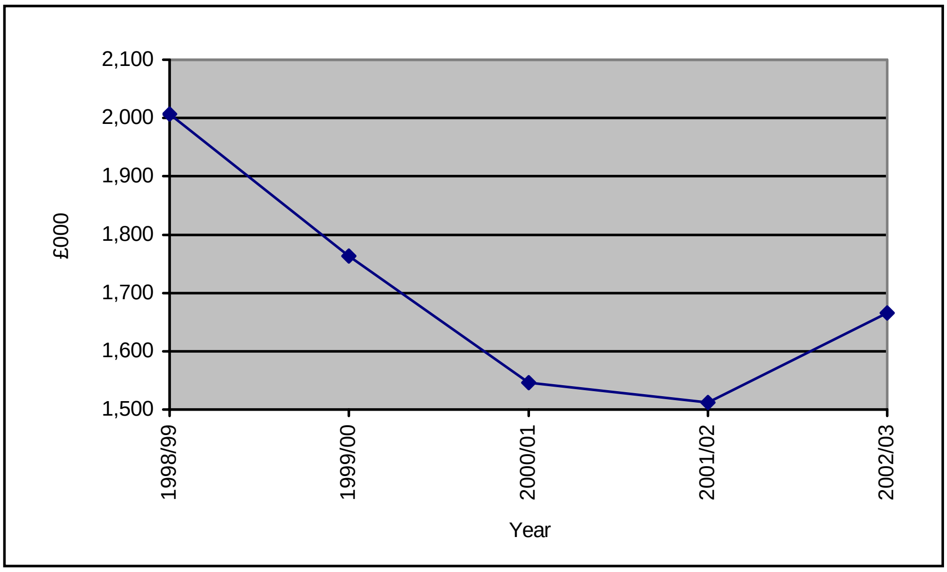
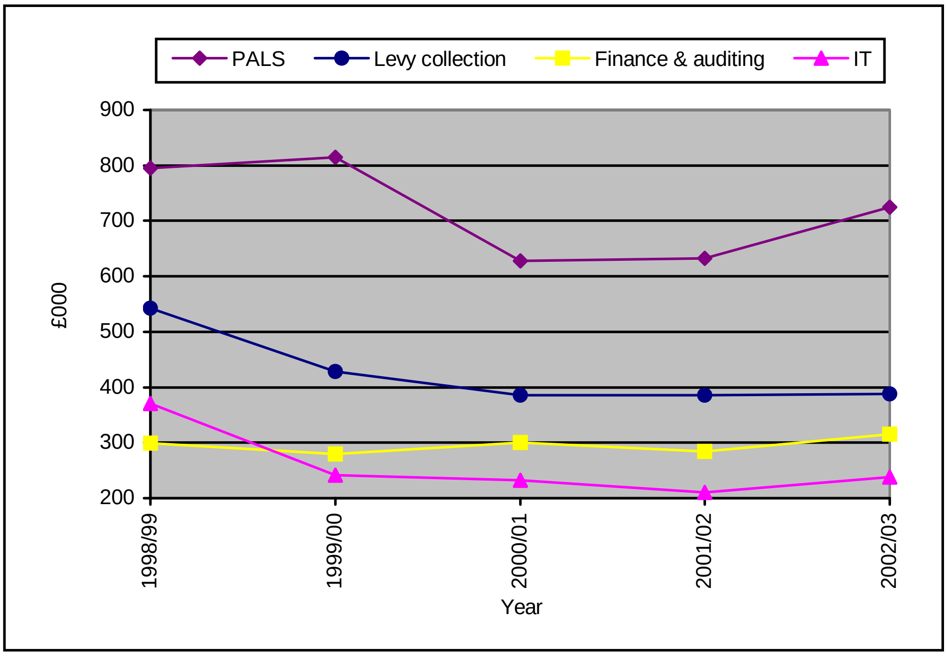


Figure 2.11: Breakdown of the BPC's overhead and support function costs



PALS: Personnel, administration and legal services

3. THE BPC'S OPERATIONS

Introduction

3.1 This section considers each of the main operations of the BPC; R&D, technology transfer, market information, promotion, the seed strategy group, export promotion, and SBEU. Though much of this arises from the various reports produced by the BPC it is felt important to describe in detail the range of activities that the BPC undertakes and also how it evaluates success. This coupled with the market failure discussion and the survey findings presented in the following chapters will enable a clearer picture to emerge when the findings of the evaluation are considered.

Research & Development (R&D)

3.2 The main responsibility for Research and Development lies with the R&D committee. The R&D committee consists of 14 members from the following areas of the potato industry:

5 BPC representatives:
- 1 is the committee's chairman (independent BPC member)
- 3 grower representatives (usually but not strictly representing fresh, seed and processing)
- 1 represents the industry beyond the farm gate

2 scientific representatives from Defra and SEERAD
1 member (non-BPC) nominated by the SSG
2 members nominated by the Potato Processors' Association (PPA)
4 members representing the seed, processing and packing sectors nominated from within the technical directors group

3.3 The R&D committee holds four full day meetings a year. The work of the committee is now linked to the priority areas (Action Plans) as stated in the BPC's Corporate Plan (as shown in Chapter 2, Table 2.2). Accordingly the committee is responsible for commissioning new R&D projects in the following areas:

- Size and uniformity (Action Plan 3)
- Pest and disease status (Action Plan 4)
- Processing quality (Action Plan 5)
- Residues (Action Plan 6)
- Seed (Action Plan 7)
- Storage (Action Plan 8)
- Bruising and damage (Action Plan 9)
- Water (Action Plan 11)

3.4 Once the committee has identified the specific needs within each of these priority areas, tenders are invited from GB potato research centres as well as being publicised on the BPC's website, and on the European Association for Potato Research and Global Potato News websites.

3.5 Each tender is assessed by the R&D committee on the following criteria:

- General approach and confidence
- Structure and management
- Research type and science quality
- Uptake and application
- Partnerships with industry
- Likelihood of effective knowledge transfer
- Environmental impact
- Value for money

3.6 Selected projects are recommended for support to the BPC council meeting for further discussion and final approval prior to any commissioning. A standard contract is then issued which includes a schedule outlining project milestones against which the project's progression is evaluated. The contractor is then responsible for filling out a quarterly claim for reimbursement from the research grant and a declaration of project progress. This allows the BPC not only to see at what stage the project is at but also monitor its budget. All of this information is stored on an R&D database.

3.7 Generally, around eight to ten new R&D projects are currently commissioned each year. Table 3.1 shows the new R&D projects started during the course of the year as reported in the BPC's Report & Accounts, 2002/03.

Table 3.1: R&D projects initiated during 2002/03

Project name	**R&D area**
Prediction and control of stem canker and black scurf of potato caused by soil-borne inoculum of *Rhizoctonia solani*	Crop protection
Sustainable GB potato packaging	Crop utilisation
Control of *Verticilium* wilt by soil treatment	Crop protection
Enhanced prediction of susceptibility to mechanical damage in harvested and stored potato tubers	Crop utilisation
Sexual reproduction in the late-blight pathogen, *Phytophthora infestans*; its role in aggravating the late-blight problem in GB	Crop protection
Comparative efficacy of available and new active ingredients in GB	Crop protection
Review and development of the application of CIPC to stored potatoes and evaluation of environmental issues	Storage
Resistance to late blight in new cultivars of potato	Crop protection

Source: BPC Report & Accounts, 2002/03

3.8 Annual reports are submitted for each R&D project with the final report undergoing an evaluation, carried out by the R&D committee in the following areas which are rated on a scale of 0-5:

- Relevance to the industry's needs - will this project benefit GB industry?
- Soundness of methodology
- Appropriateness of contractor's personnel, facilities and location
- Achievement of scientific aims
- Achievement of R&D strategy objectives
- Probability of success
- Value for money

3.9 Each R&D project is subject to ongoing financial evaluation for a period of 10 years, an example, submitted by the BPC, can be seen in Table 3.2. In addition, the number of times a final report is accessed via the BPC's website or requested is also recorded.

3.10 The BPC has carried out a number of R&D projects, a summary of which can be seen in Table 3.3 (a complete list of these can be found in Table A2.1, Appendix 2).

Table 3.3: A summary the BPC's R&D projects

R&D Area	Number of Projects
Breeding and varieties	5
Crop agronomy	22
Crop protection	34
Crop utilisation and mechanisation	8
Storage	12

3.11 A number of mechanisms are used to identify priorities for research. These include audits of projects, KT uptake and feedback from the Supply chains, SSG consultation, Packer group discussion, and FPC and PPA feedback. In addition annual reviews of R&D programme are undertaken by the R&D committee to assess ongoing relevance, outputs and gaps.

3.12 As part of the process of prioritising R&D expenditure, the BPC conducted a survey of levy-payers and corporate members called, 'Have your say on the priorities for BPC R&D'. The questionnaire was distributed to levy-payers through meetings and in a web-based format.

3.13 Participants were asked to rate the relevance of a number of research projects which were grouped under the following headings:

- Improving crop management
- Tackling pests and diseases
- Improving seed management
- Preserving stored crop quality

3.14 Responses were collated through a web-based database and analysed on a quarterly basis. The BPC received a total of 229 responses from 33 counties, representing 8.8 per cent of the total area planted and 22.5 per cent of the total tonnage.

3.15 Participants were able to rate these projects on a scale from 1 (low) to 5 (high) or could mark them as having no relevance. The overall results of this survey can be seen in Figure 3.1. Out of the top five, three came under the category of ‘Improving crop management’ which included minimising bruising and damage which had the highest average score.

3.16 The main regional differences included:

- Wireworm, which was rated at over 175 per cent of the overall GB mean in the South West
- Powdery scab and spraing, which were rated at over 130 per cent of the overall GB mean in Scotland

Table 3.2: EXAMPLE of Financial evaluation of project 807/209 - Evaluation of direct dormant tuber testing for viruses

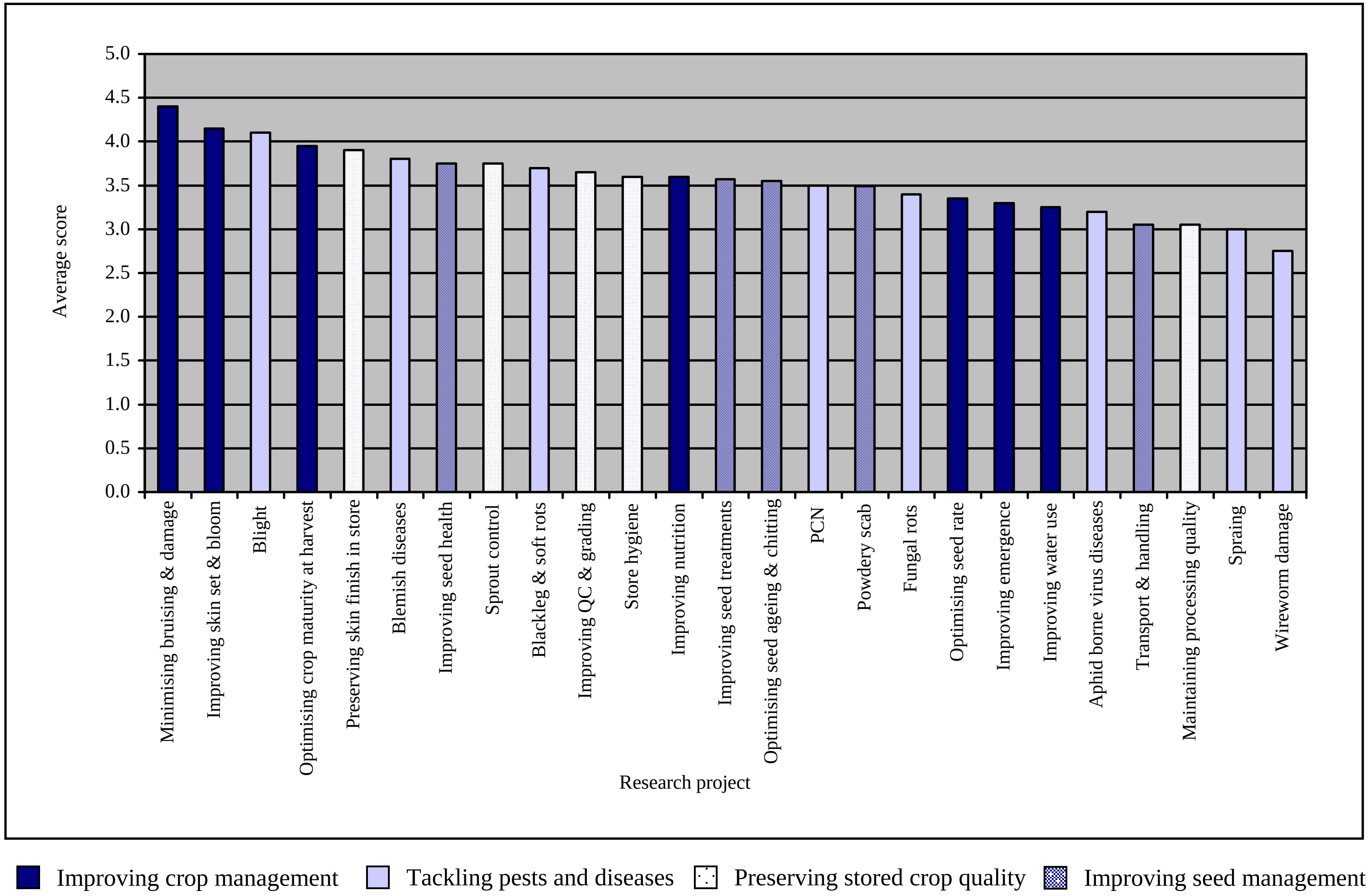
Assumptions

Approximately 1000 stocks tested per year		
Additional cost of rapid testing per stock	-£150.00	*Rapid test £250/stock, growing on test £100/stock*
Savings/premium from rapid testing per tonne	£5.00	*Improved management of stocks and increased sales*
Typical stock size	100.00	*tonnes*
Savings/premium from rapid testing per stock	£500.00	
Number of stocks tested by rapid method	100	*per year*
Discount factor from Treasury Green Book	6.00%	

Calendar year	Year No.	Research cost (£)	Cost to industry (£)	Benefit to industry (£)	Net benefit (£)	Discount factor	Present value of net benefit (£)	
1999	-5	-6,183	0	0	-6,183	1.338	-8,274	
2000	-4	-18,548	0	0	-18,548	1.262	-23,416	
2001	-3		0	0	0	1.191	0	
2002	-2		3,150	10,500	7,350	1.124	8,258	
2003	-1		5,400	18,000	12,600	1.060	13,356	
2004	0		7,950	26,500	18,550	1.000	18,550	
2005	1		9,000	30,000	21,000	0.943	19,811	
2006	2		12,000	40,000	28,000	0.890	24,920	
2007	3		15,000	50,000	35,000	0.840	29,387	
2008	4		15,000	50,000	35,000	0.792	27,723	
2009	5		15,000	50,000	35,000	0.747	26,154	
2010	6		15,000	50,000	35,000	0.705	24,674	
2011	7		15,000	50,000	35,000	0.665	23,277	
2012	8		15,000	50,000	35,000	0.627	21,959	
2013	9		15,000	50,000	35,000	0.592	20,716	
2014	10		15,000	50,000	35,000	0.558	19,544	
							246,641	**Net Present Value of project 807/209 (for the next 10 years)**
							43.63%	**Internal Rate of Return (for the next 10 years)**

Dormant tuber virus testing would need to be adopted on more than 38 stocks per year for the project to be an economic success.

Figure 3.1: Results for the 'Have you say on the priorities for BPC R&D' survey – available so using ! – but not main driver



Knowledge Transfer

Campaigns

3.17 As a result of the Action Plans taken from the BPC's Corporate Plan (Table 2.2), day-to-day knowledge transfer activities have been augmented by integrated campaigns on high priority subjects. The BPC has adopted a campaign approach because it believes it reflects the need to communicate on a sustained basis, using a variety of complementary techniques, but also ensuring that they are taken up and applied. Campaigns which have been implemented include blight, water and seed management, with further work currently underway on seed health and storage. The campaigns encompass both knowledge transfer and the commissioning of specific R&D projects.

a). Blight campaign

3.18 Late potato blight imposes a significant cost burden on the GB potato industry, both in terms of direct loses in field and store and from preventative measures that are estimated to cost over £20 million/year. In response, the BPC launched its 'Fight Against Blight' campaign in December 2002 which aims to reduce the cost of blight by:

- Developing a nationwide, voluntary, non-commercial blight mapping scheme.
- Raising awareness of best practice in all aspects of blight control.
- Commissioning and reporting research to improve blight control in the field and store.

3.19 The BPC has used an integrated communications campaign approach, involving a cross-section of existing BPC outputs, including a number of BPC publications, and a number of new activities. To date, over 300 individuals have volunteered to act as blight scouts whilst the mapping pages on the BPC website have received over 14,000 hits during the first 170 days of its trial operation.

b). Water campaign

3.20 Awareness of national and European regulations affecting water has significant implications on the potato industry and is inconsistent across the industry. In response, the BPC initiated its water campaign during 2002/03, which will be continuing into 2003/04 and aims to:

- Raise potato industry awareness by encouraging involvement, debate and relevant action.
- Ensure the specific needs of the potato industry are recognised by decision makers.

- Encourage efficient use of water by assisting uptake of existing knowledge and developing new advice through ongoing R&D.

3.21 The BPC has utilised a number of communication techniques which include the collation of reliable facts and figures as an industry source, production of practical advice sheets with additional water-related material being highlighted at levy payer meetings and workshops, included in BPC publications and available on the BPC's website. The BPC has also played a vital role in liasing with regulators, and interested third parties, in putting the potato industry's case and to keep growers and purchasers informed of any new legislation and what implications it may have.

c). Seed management campaign

3.22 BPC-funded research has indicated that chronological and physiological ageing of seed potatoes provides the potential to manage stem numbers and tuber size, allowing growers to cater for a number of markets which are currently being supplied by importers.

3.23 This campaign is slightly different to the others in the sense that it focuses on a more restricted target audience and is likely to appeal to innovators and 'early adopters' among the grower base and 'fresh thinking' purchasers throughout the supply chain. Therefore, this campaign has been targeted towards supply chain partners and has involved a series of field scale evaluations, adopted by a specific supply chain. These trials are also being conducted in Portugal to establish whether it will improve the competitive position of GB seed exports to this region.

Eyewitness

3.24 Eyewitness is the BPC's flagship publication which is printed six times a year, informing levy payers of R&D results, industry issues and all aspects of the BPC's work. The BPC also has a planned process of targeting specific articles at the farming press, including periodicals such as Farmers Weekly, Crops, Arable Farming and Potato Review.

Industry meetings and workshops

3.25 Market Information and Technology Transfer (MITT) meetings and workshops are seen as an important means of communicating market information and technical advice and updating agronomists and technical advisors on key issues. They provide opportunities for experts to present their findings, encouraging group discussion on how they can be applied in commercial practice, and attendees to talk directly with industry experts and scientists. Agronomists who are BASIS registered can earn points under their continuing personal development schemes by attending these meetings.

3.26 16 regional meetings were held in autumn 2002 which were attended by a total of 300 growers and agronomists who were asked to rate them in terms of relevance to their business and overall satisfaction. The results of which can be seen in Table 3.4.

3.27 A series of four spring workshops were also organised which operated on a regional basis, each attracting about 100 growers and agronomists, and received substantial technical press coverage. Whilst 13 summer workshops, centred on host farms, attracted an average of 25 attendees. Both of these events were also rated in terms of relevance to their business and overall satisfaction. The results of which can be seen in Table 3.4.

Table 3.4: Evaluation of the BPC's workshop knowledge transfer output

	No. of meetings	**No. of attendees**	**Average score for relevance/usefulness**	**Average score for satisfaction**
Autumn workshops	16	300	3.9	3.9
Spring workshops	4	100 per meeting	4.4	4.1
Summer workshops	13	25 per meeting	4.3	4.1

Source: BPC Report & Accounts, 2002/03

1=poor; 5=excellent

BPC's website

3.28 Levy payers can access the BPC's website which has a number of headings, one of which is Information and Advice. This section covers a number of campaigns and areas which the BPC feels are important to the potato industry.

3.29 The BPC has a number of research and technical publications, derived from its R&D programme which come under the following subject headings:

- Crop management
- Pests and diseases
- Seed management
- Storage
- Other

3.30 Each heading has a number of research summaries, reports and other technical information which can be found in Table A3.1, Appendix 3, all of which can be directly accessed via the BPC's website. Hardcopies of these are also available on request. The BPC views the delivery of R&D generated information as integral to their campaigns.

3.31 Growers' Advice is intended to provide growers with practical advice on how to increase efficiency and reduce unit costs of production which is also based on the findings from the BPC's R&D programme.

Events

3.32 The BPC also organises industry level events. In the recent past these have included British Potatoes 2003, Potato Storage 2004, Potatoes in Practice and Seed events. They also run a series of field days in conjunction with Harper Adams college.

Research centre visits/open days

3.33 Visits to research organisations provide the opportunity to see a wide range of work being undertaken in the potato industry and see their practical implications.

Technical literature

3.34 As mentioned above, hard copies of all research summaries, reports and other technical information are available upon request.

Variety information

3.35 Characteristics of new varieties based on BPC-supported, independent variety trials are published in a variety handbook which is available either in a domestic or export version.

Council minutes

3.36 A number of issues are covered in council meetings including various aspects of R&D. Levy payers can access these freely and therefore can also gain knowledge of research which is being undertaken.

Market information

Trend data

3.37 The BPC collects an extensive range of GB and European trend data which can be accessed via their website or upon request. It includes information relating to potato growers, area, yield and production of potatoes, potato prices, human consumption and various reference data (a full list of which can be seen in Table A4.1 and A4.2, Appendix 4).

Market reports

3.38 Potato Weekly (updated on Fridays) and Price Weekly (updated on Mondays) provide up-to-date crop and market reports as well as relevant industry commentary. A number of companies are regular contributors (a full list can be found in Appendix 5) and are therefore able to use the ‘industry contributor’ logo. These publications can be accessed through the BPC’s website, e-mail, or by subscribing to weekly fax broadcasts.

3.39 Euro-potato is updated monthly and reports on the key market situations in major European potato growing countries whilst the BPC Retail Report, which is also a monthly publication, gives an overview of the volume and value of potatoes purchased as well as changes over time including product type and outlet data.

3.40 The BPC also provides the following market information through their website:

- European Market Data (a detailed outline of this information can be found in Table A4.3, Appendix 4).
- Bag Market Report: a recorded phone message which is updated every Thursday afternoon.
- London Wholesale Market
- Crop Reviews
- Early Market Reviews

GB Potato Futures Market

3.41 Information regarding the GB Potato Futures Market can be accessed via the BPC’s website. It specifically focuses on:

- GB Futures Market trading
- Trading in Potato Futures

Earlies data

3.42 Earlies data can be accessed via the BPC’s website. It provides cumulative and daily figures based on region, total cleared (hectares), movement (tonnes), value (£), percentage cleared, yield (t/ha) and average price (£). Reviews of season

Other sources

3.43 Other sources of market information are as follows:

- Crop and price reports: a regionalised telephone messaging service for levy payers.
- BBC Ceefax: three pages of information on prices, markets and crop reports which are updated daily.

Government Statistics

3.44 The BPC also provides statistical information to the Government as part of their process of collecting agricultural statistics.

Market Sizing

3.45 Significant resources are also been directed at mapping the industry and gaining an idea of the relative size of the various components.

3.46 The BPC monitors access and requests for market information and other publications. For example, the number of times documents are downloaded from the website is recorded. Other information that the BPC was able to provide included numbers of subscribers to their publications and use of their phone services. The detailed numbers are not reported here but in terms of the evaluation the important point is that this information is collected and evaluated as part of the general operation of the BPC.

Promotion

3.47 Increasing usage and demand of GB potatoes is the BPC's primary marketing role. It does this in the following ways:

a). Improving industry knowledge and understanding of key issues that effect demand for potatoes.
b). Campaigning to create awareness and action amongst consumers that potatoes are an important part of a healthy diet and can be quick to prepare and cook.
c). Creating dialogue and putting the industry's case in order to ensure maximum benefit for the potato.

3.48 Each of these areas will be discussed in the following sections in order to gain an understanding of how the BPC promotes GB potatoes generically.

Improving industry knowledge and understanding

3.49 In order to understand consumer requirements the BPC provides the industry with information on current buying, cooking and eating habits. It also aims to understand what demographic and lifestyle factors influence the consumption of potatoes and identify key areas which will add value to the supply chain.

3.50 The BPC has carried out a number of consumer studies including the latest health research findings which are listed below. A full summary of each of these can be found in Table A6.1, Appendix 6.

- What consumers want from fresh potatoes

- What consumers want from processed potatoes
- How consumers buy potatoes and what we can do to encourage them to buy more
- How lifestyle trends may impact potato consumption - opportunities and threats
- Understanding the future size of the BPC's meal occasion model
- Health awareness research March 2004 (a survey into consumer attitudes to and perception of potatoes and health)
- A closer look a foodservice. An investigative project to understand the dynamics of demand within the profit sector and highlight opportunity areas for GB potatoes

Campaigning to create awareness and action

3.51 There are three major promotional campaigns the BPC coordinates which concentrates on the key consumer drivers of health and convenience. They are:

a). National Chip Week
b). Health - Fab not Fad
c). Convenience - Potatoes everyday anyway

3.52 Each will be discussed further in the following sections.

a). National Chip Week

National Chip Week 2004 was run during the week of 16th-22nd of February. Its main aims were to:

- Raise the profile of chips and potatoes through extensive PR and media activity
- Drive chip and potato sales through promotional activity
- Ensure chips stay at the top of consumers' minds by ensuring significant opportunities to see and hear the campaign messaging 'Love chips, go on, give in to the taste!'

b). Health - Fab not Fad

3.53 The Fab not Fad campaign was run during the summer months of May-July 2004. Its main aims were to:

- Increase the awareness of health messages on potatoes to 25 per cent (20 per cent was reached in 2003).
- Achieve 15 times the PR spend in terms of coverage (13 times was achieved in 2003).
- Increase sales of BPC promotional potato packs on average by 5 per cent. This correlates to an average sales increase of 3-4 per cent on pack branding and 5-15 per cent on pack promotions.

3.54 The methods adopted by the BPC to achieve these aims by getting levy payers to pass on the health message to consumers in the following ways:

- Invite their local school to spend time at the BPC's bus at a local show
- Display Fab not Fad car and lorry stickers
- Display a Fab not Fad point of sale pack in their farm shop
- Order the BPC's Healthy Eating Advice for their local doctor's surgery
- Hire the BPC bus for a day (£500 per day)
- Order a free BPC leaflet which contains information about the health benefits of potatoes

c). Convenience - Potatoes everyday anyway

3.55 The convenience campaign, Potatoes everyday anyway, is run during the months of September to November. For 2004, its main aims are to:

- Promote the message that potatoes can be easy to prepare and quick to cook
- Increase the awareness on the convenience benefits of potatoes by 20 per cent
- Increase sales of the BPC's promotional packs by 5 per cent

Creating dialogue and putting the industry's case forward

3.56 A further identified role for the BPC is maintaining dialogue with relevant government departments and agencies, providing potato industry input on a wide range of health, nutrition, food safety and trade issues. It plays a major role as a spokesperson/facilitator, on a number of issues, on behalf of the potato industry and is seen as a neutral body. A specific example of this was in response to the 5 a day, government Food and Health Action Plan (FAHAP) which has been put in place by the Department of Health (DOH). Currently, potatoes do not fall into the DOH's 5 a day programme and are instead classified as starchy carbohydrates. However, the DOH does recommend that one third of a healthy diet should consist of starchy foods such as potatoes, rice, pasta and bread and are important as part of a balanced diet, which is the message that the BPC promotes to children and consumers, throughout the year and especially around the health campaign period.

3.57 The BPC is currently working with other levy bodies such as the Meat and Livestock Commission (MLC), the Home Grown Cereals Authority (HGCA) and the Milk Development Council (MDC) on the following projects:

- Research into the investigation of diet of UK adults and young people in relation to meeting current dietary targets and recommendations and to use this as a basis for action in response to the FAHAP.
- Design and technology food challenge - a series of unique, fun and interesting challenges to motivate pupils in schools to learn more about food. The BPC is challenging both primary and secondary schools to develop a potato based recipe in thousands of schools this summer.

3.58 Collaboration with other levy bodies, in response to the Curry Commission's recommendations, can be seen in other areas of the BPC's work and is discussed later

3.59 The BPC has also worked alongside the Food Standards Agency (FSA) in its implementation of an action plan to minimise pesticide residues in five food crops including potatoes in response to the consumer preference for food without residues. In order to ensure that the action plan is developed with complete industry commitment, the main issues which will be focussed on include:

- Key pesticide residues
- Current best practice
- Alternative control strategies
- Research and knowledge transfer needs, where solutions do not currently exist

3.60 By combining individual supply chains' plans, the BPC can support the legislative process which is managed by the Pesticides Safety Directorate (PSD) for pesticide approvals based on Good Agricultural Practice and the resulting maximum residue levels (MRL's). The BPC also communicates with consumers and consumer groups through the FSA and to retail and foodservice purchasers through an independent forum. This has been achieved by coordinating the following activities:

- Information has been provided to the FSA consultation on BPC activities relating to residue minimisation.
- A meeting with the FSA was held in December 2003 for potato industry stakeholder organisations to discuss the pesticide minimisation action plan. Priority residues were identified. The meeting also led to new research being commissioned by the FSA to understand consumer perception of pesticides. This was reported to the FSA board in May 2004. In addition there is ongoing work in this area with the FSA and Assured Produce.
- Meetings have been held with representatives of the Pesticide Residues Committee, the Scottish Consumers Council ,the PSD and PAN.

3.61 The BPC has also been involved in several consultations providing responses, on behalf of the industry, to the implementation of the EU's review on pesticides.

3.62 The BPC feels that by delivering these contributions to both Defra and SEERAD science and innovation strategy consultations, priorities for government sponsored research to develop medium to longer-term strategic research solutions can be made to address any pesticide concerns.

3.63 The BPC is also currently working alongside other development organisations within the Applied Research Forum, set up in response to the Curry Commission's recommendations. This group explores issues of common interest, for example, cross-sectoral approaches to crop action plans and cooperative projects for consideration under LINK schemes where there is potential for matching government funding. The type of issues considered include wastage, biodiversity, water and soils, sustainability

3.64 The BPC's seed and export supply chain has also coordinated a number of inward missions with a number of countries including Sri Lanka, Thailand, Brazil and Indonesia

Seed Sectoral Group (SSG)

3.65 The SSG is a statutory committee, chaired by a BPC council member who is a specialist seed producer. It meets four times a year and oversees the seed initiatives and projects (including input into R&D prioritisation and projects) undertaken by the BPC. It consists of a number of industry representatives whom are nominated and balloted.

3.66 The SSG's mission statement:
To increase market share by achieving a reputation for GB as the preferred source of seed potatoes for the domestic and international markets.

3.67 The SSG's vision:
An internationally competitive industry, exploiting its potential as a supplier of high quality seed and driving unnecessary cost out of the supply chain.

3.68 Objectives for the domestic market, by the year 2005 include:

- To increase the market share of GB classified and certified seed from 69 per cent to 80 per cent.
- To maintain and/or increase the level of 94 per cent GB self sufficiency in seed measured as 5-year averages.

3.69 Whilst the main objective for the export market, by the year 2005 is:

- To increase the volume of seed exported by 20 per cent, from a 5-year average of 69,000 tonnes/year to 83,000 tonnes/year.

Seed

3.70 One of the BPC's main aims is to actively promote British seed in domestic and international markets. It provides information for seed growers, seed suppliers, seed customers and the consumer in the form of:

- Seed statistics
- Seed issues
- Seed marketing projects
- Seed variety database

- BPC seed industry events

Seed statistics

3.71 The BPC provides statistics for Defra and SEERAD on the quantities of GB seed exported, the area of certified/classified seed which has been grown in GB, combined seed areas for the top 10 varieties entered for classification within nine EU countries and EU seed areas entered for classification by variety, all of which can be accessed via the BPC's website or by request.

Seed issues

3.72 The BPC provides a line of communication between government departments and industry representatives on issues which directly affect the British seed industry. They provide information on the restrictions on the planting of imported potatoes via the BPC's website with further contact details regarding licensing and quarantine procedures also available.

3.73 Where situations potentially damaging to the industry have arisen, for example the two recent outbreaks of ring rot in the UK, the BPC has provided the front line of liaison with the press. This is seen as important in reducing the likelyhood of damaging speculation. Further to this the BPC has provided the industry with a comprehensive source of information on plant health issues.

3.74 Through involvement with the publication of the Potato Newsletter and running of the Potatoes in Practice open day the BPC provides routes for the communication of up to date seed issues and research results.

Seed marketing projects

3.75 The BPC coordinates the Seed Customer Satisfaction Survey. It provides insight into the domestic market's satisfaction with seed purchased and the service provided by their supplier. By doing so, the BPC can highlight any areas which may need improvement and can track progression within the industry, identifying any concerns and possible gaps in scientific research. The first of these surveys was conducted in 1999.

3.76 The BPC's publication, the Growers' Guide for Seed Production, has come about as a result from the outcomes of Seed Customer Satisfaction Surveys. It promotes a message of "best practice" to seed growers and can be used as a reference tool, providing insight into the key factors and related practices that are relevant in achieving efficient production and high quality crops. These guides can be accessed via the BPC's website or by request.

3.77 Cost Analysis of Seed Production is another project the BPC has undertaken. Its main objective was to identify a set of guidelines that could be recommended as “best practice” for seed production and provide the potato industry with an analysis which shows the costs involved in producing seed of high quality.

Seed variety database

3.78 The seed variety database has all the information the British Seed Variety Handbook contains, online under the following sections:

Advantages: a brief summary of the advantages British seed offers.
Classification: an outline of the certification/classification schemes currently run in Scotland, England and Wales with the primary objective of maintaining a high health status of the British potato crop.
Variety search: a live catalogue of the seed varieties available in Britain. This system can be used to search for varieties by name, market or specific characteristics.
Main tables: a variety performance characteristic table that can be downloaded as pdf files.
Breeders/agents: a list of contact addresses for breeders and/or selling agents who maintain specific varieties.
Organisations: A list of contact addresses for various organisations linked to the British seed industry who can provide information on contracts, seed areas, suppliers of free market varieties and any other general information.

BPC seed industry events

3.79 The BPC Seed Industry Conference is an annual event run over 2 days, the first of which was hosted in 2002. It aims to improve communication throughout the seed industry and to adopt a common approach to key challenges. An evaluation of this event was taken to measure knowledge transfer outputs by asking recipients to rate the meetings in terms of relevance to their business and overall satisfaction. The results of which can be seen in Table 3.5.

Table 3.5: Evaluation of the BPC’s Seed Industry Conference knowledge transfer output

	Average score for relevance/usefulness	Average score for satisfaction
Seed Industry Conference	4.4	4.0

Source: BPC Report & Accounts, 2002/03
1=poor; 5=excellent

3.80 The Seed Forum is an event which is chaired by the BPC which brings together representatives of five major research centres involved with seed production and classification in Scotland, England and Wales. The event encourages discussion on seed related technical issues and provides an independent view on the British seed industry.

3.81 The BPC also had a dedicated seed centre at British Potato 2003 which was held at Newark, Nottinghamshire. It provided seed and ware growers from all over GB an opportunity to discuss their aims and goals.

Export

3.82 The BPC plays an active role in promoting the export of British seed potatoes which have been steadily increasing over the last 10 years with 83 thousand tonnes being exported in the 2002/03 crop year. The BPC has an export team who do not act as agents but coordinate a number of activities, sometimes alongside other British exporters, on a non-profit basis. Some of which include:

- Putting overseas buyers in touch with British exporters via the BPC's databases
- Dealing with export enquires
- Organising inward missions for overseas government and plant health officials to Britain
- Coordinating stands at trade fairs and shows
- Running variety demonstrations and test-marketing with overseas buyers
- Producing multilingual export publications
- Collating GB export statistics

3.83 The BPC provides a general online guide, aimed towards British potato growers wishing to export their potatoes. It provides information on reasons why they should export, what help the BPC has to offer, trade flow, EU market preferences, packing and transport, payments, plant health, BPC market reports, export/import related links and export issues.

Promotion

3.84 It should be noted at this point that the structure of the GB seed industry is one of a relatively large number of relatively small companies. This is in comparison with GB's major competitor the Netherlands where 90 per cent of seed exports are controlled by two companies. For this reason coordinated representation at major international event like the World Potato Congress is considered particularly important. This coordination has been a major role of the BPC.

3.85 The BPC, along with the China-Britain Business Council and 20 British organisations and companies formed a "British area" at the World Potato Congress which was held in China, March 2004. It was thought to be the largest ever trade mission to Western China..

3.86 The specialist export newsletter, the BPC World Service, is produced in five different languages and mailed to 65 countries to a target audience of 3,600. It provides up-to-date information on British seed potatoes.

Inward missions

3.87 As mentioned earlier, the BPC's seed and export supply chain has played a key role in coordinating a number of inward missions with a number of countries including Sri Lanka, Thailand, Brazil and Indonesia.

3.88 Each of these visits, which are partially funded through various GB government agencies, have meant that delegates from these countries have the opportunity to meet with GB government officials and visit various facilities in order to gain an accurate impression of the GB seed potato industry.

Outward missions

3.89 Through consultation with the GB potato industry, Lebanon and Turkey were singled out to be high potential target markets for GB seed. Based on this knowledge, the BPC has organised trial plots to be planted in Lebanon so that Lebanese, and later Turkish, officials and potential importers can meet with GB exporters and view GB varieties first-hand.

Sutton Bridge Experimental Unit (SBEU)

3.90 SBEU is a wholly owned, non-trading subsidiary of the BPC which has been dormant since 1 July 1999. It was initially set-up as a public limited company with a view of selling it off. However, this has never eventuated.

3.91 SBEU is an independent research centre which carries out research into all aspects of potato storage for the BPC and must tender for these projects like any other contractor. It also offers a confidential R&D service to the potato industry and can conduct storage trials in various sectors including agrochemical, machinery and product evaluation. It is located in South Lincolnshire, has a staff of eight and a total of 36 research stores.

3.92 SBEU receives approximately 400 enquires a year on the BPC Storage Advice Line which provides free, initial advice and information to levy payers. A number of publications, including BPC R&D projects and a monthly storage bulletin are available through the BPC's website or upon request and are also publicised in the following ways:

- Written articles and interviews for the farming press, including periodicals such as Eyewitness, Farmers Weekly, Crops, Arable Farming and Potato Review
- Summary reports on completed projects, usually in the form of a leaflet or handbook
- Displays and staff presence at key potato events and relevant open days

- Provision of speakers at conferences and growers' meetings, including the BPC's regular Market Information and Technology Transfer (MITT) meetings held around the country
- Store management courses and workshops where experts present research findings and encourage group discussion on how they can be applied in commercial practice
- Presentation of scientific papers at conferences attended by agronomists, consultants and other researchers
- Organisation of Potato Storage Events
- HSE activity

Summary of Evaluation Findings with Respect to BPC Activities

3.93 Through review of BPC documentation and discussion with BPC staff, this chapter has described the activities undertaken by the BPC. In terms of this evaluation there are a number of conclusions that can be drawn

- The BPC has spent a considerable amount of time and effort consulting industry as to its needs and subsequently revised its approach to delivering its frontline activities. This has led to the campaign focus of the work undertaken. The development of a strategic plan has added focus to the work undertaken. The mantra may be seen as 'doing fewer things better'.

- There appear to be clear objectives set for each area of work undertaken and the BPC has processes in place to monitor and evaluate the work that they undertake. These include databases, evaluation of meetings and events, independent consumer research, logging of website activity and monitoring of research completion.

- The assessment process for research seems effective in ensuring that the funded research is appropriate in an economic sense for a levy body to fund. It is harder to determine whether the research undertaken is the most economically efficient.

- Effective systems are in place to gauge the impact of technology transfer activities. Examples include the survey before and after the blight campaign. The process of evaluation of meetings and events is also useful and this information is used in the planning processes of the BPC. In general, evaluation information is well used in the planning processes.

- The market information provided has undergone major restructuring overseen by the Market Information Committee. This has reviewed the information provided and has made efforts to ensure that the prices given are representative as possible.

The general rule is that all statistics produced can be audited and this is seen as an important factor.

- Systems are in place for monitoring the core marketing and promotional work of the BPC and each activity is set measurable objectives. Though it is difficult to estimate the economic value of this work the objectives set provide a proxy measure of economic effectiveness.

- There is evidence that evaluation is not undertaken for its own sake, but is also actively fed back into the processes for running the organisation. There are good systems in place to make sure that information collected is used effectively and actions are taken where necessary.

- Following the re-organisation there is a stronger focus on the customer (levy payer). Staff have been well briefed concerning the direction of the BPC and all those interviewed showed a clear understanding of where their work fitted into that of the BPC. In addition the staff were clearly highly motivated and well qualified in their areas of work.

- Although this evaluation was not an audit of the BPC, the BPC appears to have a good accounting system which relates activity back to action plans and budgets and therefore is relatively transparent.

3.94 This section has considered the activities of the BPC and the internal evaluation processes. There appear to be appropriate processes in place to ensure that the Council is operated in a cost effective way. The next section considers the more fundamental issues surrounding the activities undertaken by the BPC before the views of the industry are reported in Section 5.

4. MARKET FAILURE RATIONALE

Introduction

4.1 As mentioned earlier, the BPC is funded by industry levies which are collected from GB potato growers and purchasers. In return, the BPC funds R&D, provides transfer of technology, collects and disseminates market information and promotes potatoes to consumers domestically and internationally.

4.2 This chapter and the next tackle three key questions:

- Do market failures exist in the areas covered by the BPC?
- Is the BPC (i.e., a statutory levy body) the most appropriate way of addressing these failures?
- If so, are they operating in an economically efficient way?

4.3 The key to the potential market failure issues within the potato industry is the structure of the industry. Extensive economic analysis has shown that the rationale for levy bodies arises in industries that comprise a large number of small producers, producing a homogenous product. These characteristics mean that in general there are likely to be failures in the provision of research and development; market information; technology transfer and promotion. By failures it is meant that the level of provision of those services in the absence of the statutory body would be sub-optimal from the economic welfare point of view for society.

4.4 The main reasons why under provision will occur differ between each activity but fundamentally relate to the fact that individual businesses are unlikely to be large enough to fund the activities themselves (for example undertake R&D or promotion). The additional problem is that even if the activity is beneficial to the industry as a whole, voluntary co-operation is also likely to lead to under provision. This is because those who do not co-operate cannot be excluded from the benefits (the ‘free-rider’) problem. For example, because of the homogenous nature of the fresh potato those who do not contribute to a generic advertising campaign would still be able to benefit from any increase in demand.

4.5 It is important to note that it is not just the industry that is affected by the under provision of these activities. Taking R&D as an example if there is less than optimal investment in R&D, this will lead to higher production costs than would otherwise be the case. In turn this would make the industry less competitive and lead to higher prices and more imports. Higher prices will lower the welfare of consumers and hence society.

4.6 It should also be noted that the optimal level of provision for the industry does not necessarily equate with that of wider society. For research investment for example, Alston has shown that under certain circumstances the two do coincide. However, if we consider advertising, it is not clear that the level of promotion of potatoes for industry is the same as for society where they have choices between alternative products (pasta, rice, bread etc.).

4.7 The previous economic evaluation concluded that there were market failures and that there was an economic rationale for the existence of the BPC. The changing structure of the potato industry in the United Kingdom makes it valid to question whether the underlying economic rationale for the existence of a statutory levy body still exists.

4.8 Although not discussed in the previous evaluation, there is the possibility that a market failure exists but that either government intervention in general, or establishment of a statutory levy body, is not the appropriate way to address the failure.

Structure of Industry

4.9 The possible impact of the changing structure of the industry on the rationale for the BPC makes it necessary for the structure of the industry to be examined as a core part of the market failure issue.

Table 4.1 Size Distribution of Grower levy Payers

Total potatoes						
	Total	<5 ha	5-9.99 ha	10-19.99 ha	20-49.99 ha	>50 ha
No. of growers	4156	920	823	891	947	575
Proportion (%)	100	22	20	21	23	14
Total potatoes						
Area planted (ha)	114,412	1,527	4,907	11,106	29,089	67,782
Proportion (%)	100	1	4	10	25	59

4.10 At the time of the last economic evaluation there were 8,156 registered growers (over one hectare in size). By 2003 this number had declined to 4,156 (Table 4.1). However, it should be noted that part of this decline is due to the fact that the threshold for registration rose from one to three hectares.[2] The decline in overall numbers only reflects part of the rationalisation process. In addition, there has also been an increase in specialisation in potatoes. This has occurred to the extent that growers with over 50 hectares of potatoes (only 575 in number) now account for just under 60 per cent of the potato area.

4.11 There has been considerable rationalisation through the chain with a dramatic decline in purchasers of potatoes. Using BPC figures it is possible to highlight the distribution of purchaser levy payers. Sixteen companies now purchase

[2] At the time of the change the BPC estimated that the number of growers which no longer would need to be registered was around 900.

over 100,000 tonnes of potatoes and account for a very high proportion of potatoes bought.

4.12 Although demand for potatoes has been growing overall this is not the case for all sectors. A further change in the industry has been the change of relative importance of the two distinct sectors, fresh potatoes and processed. The processed market (which includes frozen, chilled, canned, dehydrated) has shown relatively strong growth whilst demand for fresh potatoes has been falling. Within fresh potatoes itself there has been an ongoing shift in consumption patterns with the move towards washed and pre-packed potatoes purchased through the supermarkets and the demise of the bag trade.

4.13 A further impact of the change in the nature of demand for potatoes, from fresh to processed is that imports have begun to increase. The bulky nature of potatoes means that transport costs for the raw product are relatively high and this has in the past offered protection to the domestic market. However, for higher value processed products the transport costs are not so significant and therefore this produces a higher degree of competition for domestic processors. Clearly other factors such as a strong pound against the euro have increased the attractiveness of imported processed products. Excess processing capacity in Europe is also thought to contribute to this as firms strive to maintain capacity in high fixed cost processing plants.

4.14 A final feature may be seen to be the integration of the supply chain. A number of dedicated supply chains can be seen within the sector. This is particularly the case for the major processors. Here, the majority of production is purchased through direct contracts with the grower and the processor not only purchases the potatoes but provides technical and other advice as well.

4.15 Therefore, in summary the potato industry can be seen as having the following features:

- Considerable rationalisation in production and marketing
- Specialisation in production
- Few large companies dominating the processing and packing of potatoes
- Absolute and relative increase in consumption of processed products
- Development of highly sophisticated integrated supply chains
- Increased market penetration of imported processed products

Implications for Economic Rationale

4.16 The previous section has briefly outlined the structure of the industry. The issue is whether this has an impact on the rationale for the BPC and how it operates.

4.17 The shift from fresh to processed potatoes has important implications for the promotion and advertising of potatoes. As ADAS (2003) discuss for homogenous products there is likely to be less investment in promotion and advertising than optimal as firms are not able to secure the benefits from the investment. The reason is that other firms producing the product are able to gain without contributing, i.e., the so-called ‘free rider’ problem. This may be relevant to the fresh potato, however for the processed product it is a different story. Here firms are able to product differentiate and brand, and are therefore able to successfully promote their products. The most obvious examples are the large advertising expenditures of the major crisp and frozen chip manufacturers in the UK. It is clear that there is unlikely to be market failure in terms of promotion and advertising of potatoes in this form. However, although processed potatoes are continually growing in importance, the situation is such that fresh consumption still accounts for one half of total consumption. Therefore, it may be argued that there is still a need for a body to promote this production segment. However, the small number of major packers might indicate that it would be possible for the private sector to organise themselves to undertake the generic promotion. Thus, although there may still be the potential for free riding, the fact that there are relatively few companies might make this less of an issue.

4.18 The argument for government intervention in the provision of Research and Development in agriculture has been much discussed. Alston[3] argues that ‘Market failure in agricultural R&D seems to be widely taken for granted.’ The main reason is inappropriability of benefits. Often those who invest in R&D cannot capture all of the benefits. There are however many different areas of research only some of which may be appropriate for levy bodies to fund. In particular Alston argues that:

- Levy funding is clearly applicable to research on a particular commodity.
- Levies are also more applicable for commodities that are traded through markets**.**
- Levies are less applicable to research that affects multiple commodities or that applies to particular factors of production or that has an environmental focus.

4.19 The fact remains that much research therefore is not appropriable and therefore in the absence of some form of intervention it is likely that the industry might under invest and this will affect the efficiency of the economic system. The use of a statutory levy body to fulfil this role can be justified on economic grounds for a number of reasons.

- First, industry funding is a potential complement to other sources of funds, which are likely to leave total funding inadequate.
- Second, levy funding is likely to be a relatively fair (and efficient) tax base.
- Third, industry funding arrangements can be organised to provide incentives for efficient use of both the levy funds and other research resources (Alston p1061)

[3] Alston, J.; Pardey, P.G. and Roseboom, J. “Financing Agricultural Research: International Investment Patterns and Policy Perspectives,” World Development, June 1998, v. 26, iss. 6, pp. 1057-71.

4.20 The economic rationale for the role of the BPC in the provision of market information again is dependent upon the existence of a large number of small producers who individually may not have the time or resources to collect the necessary information. In addition, the fact that it would be difficult to keep the information from those that did not contribute to its collection would make voluntary activity likely to lead to a less than optimal outcome. However, it may also be argued that if such information is valued then producers, although unable to collect the information themselves, would be willing to pay for the information from private bodies. A counter argument might be that given the potential sensitivity of some information industry may be unwilling to divulge it to private sector information collectors.

4.21 The importance of information is heightened in an industry such as the potato industry because of the inherent uncertainty that exists. This not only relates to yields that can vary considerably but importantly also to the quality of potatoes available. A plentiful supply of potatoes is of no interest to a crisper if they do not have the right qualities to fry.

4.22 Given, the structure downstream of farms in the supply chain it might be argued that the major companies are of sufficient size to be able to gather their own market information. Even if this is the case there then arises the problem of asymmetric information. In this situation, the purchasers have more information than the sellers (growers) and this could be to the detriment of the growers. It might therefore be reasoned that an industry body that provides impartial information may be of benefit to growers in particular, but also to society, as the existence of asymmetric information can lead to sub-optimal outcomes.

4.23 ADAS (2003) considered whether there does exist market failure in terms of information in agriculture. US economists have tended to approach this issue by testing whether the market reacts to an event such as the provision of USDA statistical report. Simply put, if the market does not react it may be argued that the information is already known and therefore there is little value in its provision. If however, the market does reacts (for example through a shift in prices) then it is argued that the information was not known and therefore was not being provided by the private sector. The conclusion was that the reports did have value as the markets did react. There are clearly many issues concerning such event analysis. For example, it might require that information is released in discrete chunks rather than continual dissemination. However, it does provide a possible route by which the impact of market information in the potato sector could be assessed.

4.24 In terms of export promotion, the question again relates to the existence of a large number of small firms who on their own cannot undertake adequate promotion abroad. The argument is that the welfare of society will benefit from the accumulation of export revenues. Therefore it is argued that it may be beneficial for some form of statutory body to work in this field. Again, it has to be noted that the benefits spillover from those exporting to society as a whole so levy funding alone may not provide the most economically efficient outcome. It might also be argued that export promotion is of generic interest to the UK and that such work would be better done by Government departments such as the DTI which promotes all UK products abroad.

4.25 In conclusion we find the following with respect to the market failure rationale for the existence of the BPC.

- The increase in consumption of processed products reduces the need for marketing activities of the BPC. There is no market failure in the marketing of branded processed products. However, this does only relate to processed products and there is likely to be a need for an organisation to promote fresh potatoes.

- In terms of health promotion, this does relate to the whole industry. However, there are clearly spillover effects as health benefits the wider public and not just those paying for the promotion (the levy payers). Therefore, whilst there is a case for health promotion, efficiency would be achieved through funding from Government (or agencies concerned with health promotion). This is because left to their own devices a levy body is likely to under promote the product on health grounds. At a more fundamental level it might be questioned as to whether it is beneficial for society for industry bodies to promote health. It may be argued that given its public good nature this work should be conducted by the Department of Health (or Health bodies) who can consider the broader health issues.

- In terms of R&D there is likely to be under provision without some form of government intervention. This is the case even if there exists a number of large companies within the industry capable of funding research. This is because it is not possible for private companies with certain types of research (such as agronomic changes) to be able to appropriate the benefits. Therefore it is concluded that there is a rationale for government intervention in R&D. However, with respect to the BPC the specific question is whether it is appropriate to do this via levy bodies. Under certain circumstances it is economically likely to be beneficial for levy bodies to fund research.

- The existence of large integrated supply chains and the operation of multinational companies in the UK may be seen to reduce the market failure problems in the areas that they operate. Even if they are not necessarily carrying out all the activities at the present time they could in the absence of the BPC fund relevant research, transfer knowledge to their growers, and promote the final product to the public and retailers. It is therefore difficult to see in these particular activities clear evidence of the existence of market failure. To take this to its extreme, if only the two largest processors of potatoes existed in the UK it can be argued that the only market failure that might exist relates to monopsony type power. This sort of market failure is unlikely to be overcome through an industry wide levy body. It may therefore be argued that in this extreme situation there would be no justification for the work of the BPC. However, since the industry does comprise of more than the two companies, there are areas where there is likely to be an economic case for the BPC.

- In terms of market information provision, there is a clear rationale for its provision through a levy body at the grower level. However, this does not necessarily translate to the purchaser and end user level. However, provision of information helps reduce the potential problems of asymmetric information that might be detrimental in terms of achieving an efficient allocation of resources.

- A final rationale for a levy body that represents the industry is that it can help prevent 'regulatory failure'. Regulatory failure in this sense is taken to mean the introduction of inappropriate regulation that is economically inefficient either because the cost of regulation is greater than the initial problem or because the regulation introduces inefficiencies into the system. If a levy funded body is able to work to reduce the likelihood of regulatory failure it will also be of benefit to society as a whole as the economic system will work in a more efficient fashion.

4.26 In summary, this chapter has raised some conceptual issues concerning the areas of operation of the BPC. Whilst the analysis has considered the likely existence of market failures, this does not necessarily mean they exist where the BPC operates or that they are been addressed in the most economically efficient way. On the basis of the information provided in the previous chapter and the analysis of this chapter it is possible to evaluate the operation of the BPC and this is undertaken in the next chapter.

5. EVALUATION OF THE BPC'S OPERATIONS

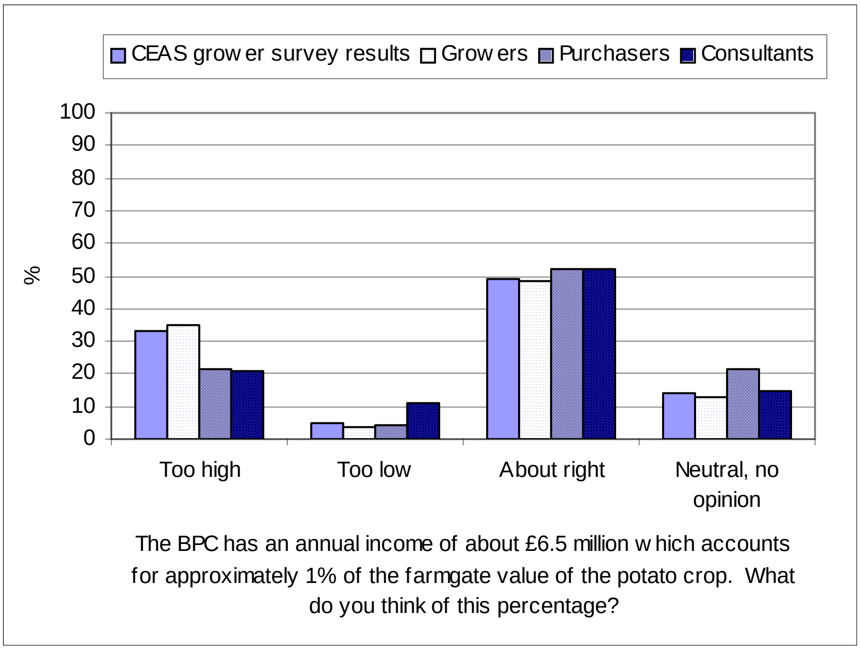
Introduction

5.1 This purpose of this section is to assess the main operations of the BPC which were outlined in Chapters 2 and 3. Extensive use is made of the surveys undertaken as part of this evaluation (described in Appendix 1) and these are linked to the more conceptual issues raised in the previous chapter.

5.2 A first step in the evaluation process involves analysis of the attitude of respondents to the whole of the organisation. Respondents were asked questions concerning the size of the BPC (in terms of income), their satisfaction with its performance and whether they felt it should be disbanded or not. Each of these issues is considered in turn.

5.3 Around half of all respondents felt that the income level was about right. However, over 30 per cent of growers and twenty per cent of consultants and purchasers felt it was too high. Unsurprisingly amongst those paying the levy relatively few felt it was too low.

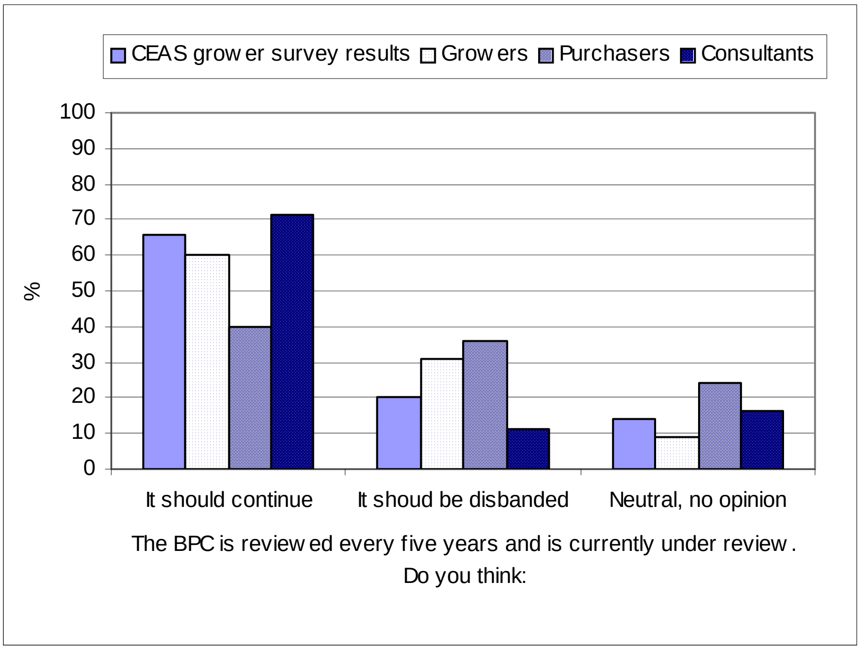
Figure 5.1 Income of BPC



5.4 However, of some interest is the fact that when questioned as to the actual levy rate, a greater proportion felt that it was too high. This reflects a conflict between the view of the respondent to the industry as a whole as opposed to their own situation. It was also found that the majority felt the current system of funding the BPC (dual levy) was a fair system and that the recent changes (raising of thresholds etc) were an improvement.

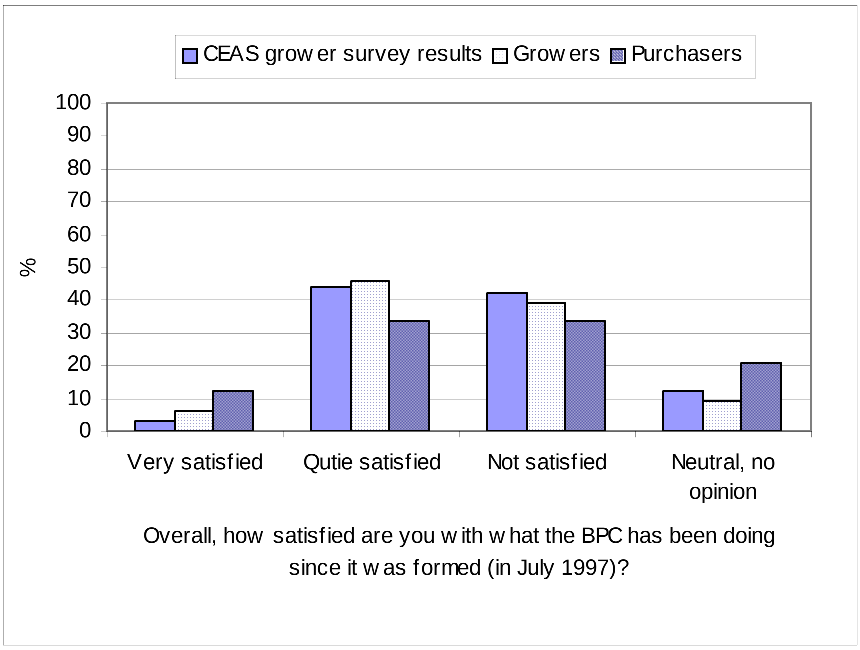
5.5 Figure 5.2. highlights that a majority of levy payers were in favour of the continuation of the BPC, although there was a major difference between growers and purchasers. Around 60 per cent of growers and only 40 per cent of purchasers were in favour of continuation. Though again it should be emphasised that the purchaser survey was small and that it did not attempt to mirror the structure of the industry. Comparing the results with the last evaluation (recognising the differences between the two evaluations in terms of samples and methods of survey), a slightly lower proportion were in favour in this survey and there were fewer 'neutrals' which results in around a 10 per cent difference in those who want to see it disbanded between the two evaluations.

Figure 5.2 Future of BPC



5.6 A rather less blunt question dealt with the level of satisfaction with the BPC since its inception (Figure 5.3). Here we find that relatively few respondents were very satisfied although a majority were quite satisfied. What we do see though is that a higher proportion of respondents were dissatisfied compared to wanting to see it disbanded. This indicates that some are not satisfied with the BPC but still feel that it should be operating.

Figure 5.3 Satisfaction With BPC



5.7 For a number of reasons it is important to understand more about those that wish to see the BPC disbanded. For example, we have already shown that the market failure rationale for the BPC amongst the processing sector is less strong so it may be the case that this group feel that the BPC is not providing them with value.

5.8 Statistical tests were therefore carried out comparing those growers wishing to see the continuation of the BPC and those wishing to see it disbanded by size, type of production (seed, earlies etc), by region, and by outlet (processing/fresh). It should be noted that because of the small sizes in some of the groups it is hard to achieve statistically significant results. However, the only significant difference found was between regions (Table 5.1).

Table 5.1: Comparison of those For and Against Continuation of BPC

Group	Significant Difference	Nature of difference
Size	No	
Type	No	
Region	Yes	West Midland/Wales region more in favour of disbanding BPC
Outlet	No	

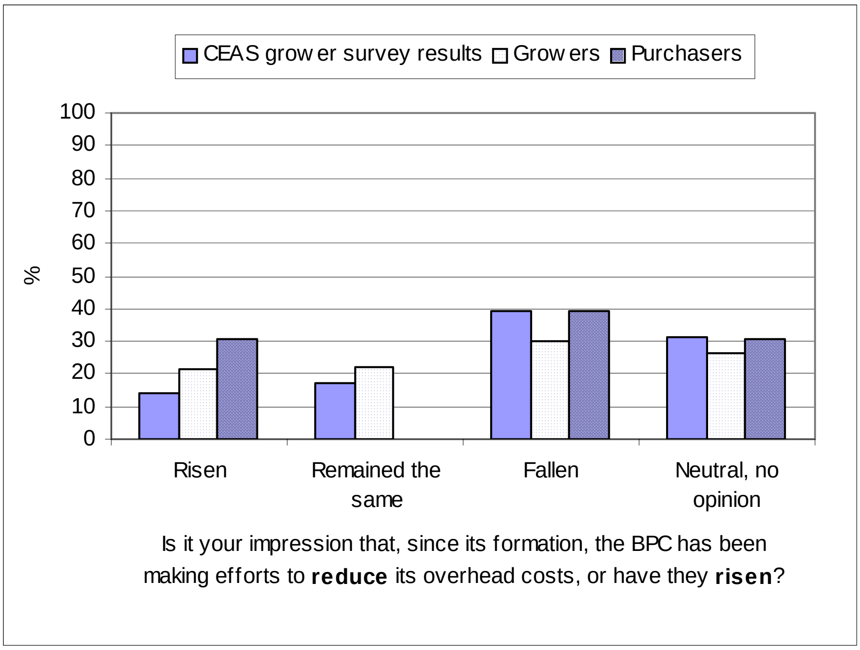
5.9 Further tests were conducted examining the relationship with the BPC and those wishing to see it disbanded. It was found that they had less contact with the BPC, were less likely to name any activities and were less aware of the research undertaken. Unsurprisingly they also were more likely to feel that the levy was too high and that the total income of the BPC was also too high. One interpretation of these results is that those who know less about its work and have less to do with it are more likely to want to see it disbanded. However, it is difficult to conclude whether they did not rate it very highly because they did not use it or that they did not use it as they felt it of little benefit.

5.10 Purchasers were split into size classes and our results highlighted little difference between the size of business and the desire to see the continuation of the BPC.

5.11 The strength of feeling of those opposed to the BPC should not be dismissed just because they are in an, albeit significant, minority. A large number of concerns were made in the comments sections of the questionnaire. There are clearly a number of producers who feel they obtain no value from the BPC or certainly not enough to warrant the levy that they pay.

5.12 Another indication of the efficiency of the BPC may be gauged by examining its level of overheads. In Chapter 2 it was highlighted that generally there has been a fall in the overhead and support costs of the BPC. As a starting point respondents were asked whether they felt there have been efficiency gains in terms of overheads. Around forty per cent of purchasers and 30 per cent of growers did. Interestingly a higher proportion of purchasers than growers had felt that they had risen (30 per cent compared to just over 20 per cent). This might be a reflection of the fact that costs did rise in the last year due mainly to increased office rental costs. Anecdotal evidence from the interview process undertaken for this study did highlight that there was a perception that overhead costs had been reduced by transferring in-house functions to outside consultants. This was viewed as not reducing the overall cost of achieving these functions and even perhaps raising it.

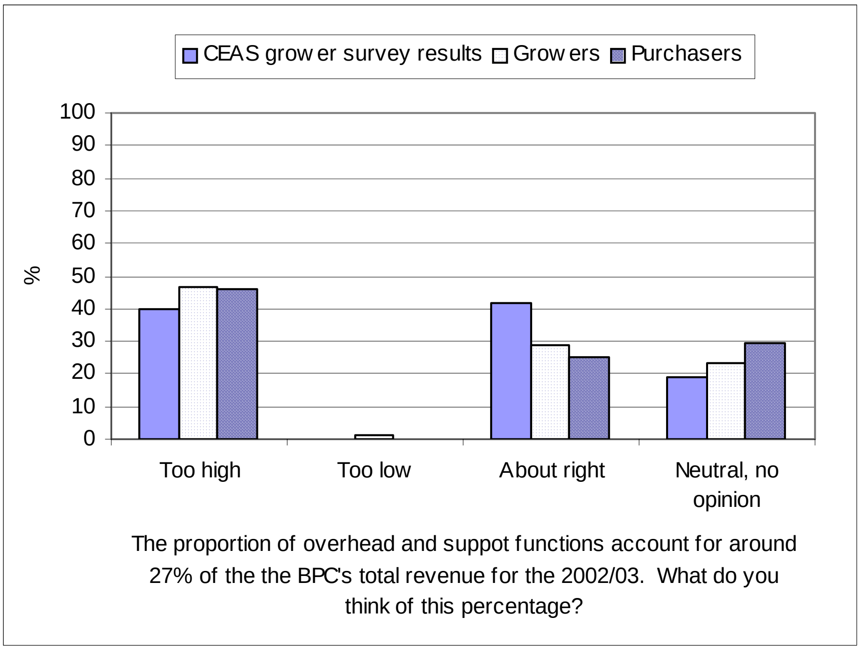
Figure 5.4 View on Overheads



5.13 Though the results should be treated with some caution, just under 50 per cent of growers felt that the overhead level of the BPC at 27 per cent was too high.[4] As will be discussed later this was also the general view of those industry representatives interviewed as part of the evaluation. However, it should also be noted that around 10 per cent of the overhead is taken up with levy collection. It is difficult to assess whether the level of overhead associated with the BPC is reasonable because of the unusual status of development councils. The HDC review tried to overcome this by comparing the HDC with the BPC. They concluded that the level of overhead compared reasonably with that of the BPC. However, this does not allow for the possibility that both are too high. The industry representatives, who have experience with relatively large businesses, did indicate that 27 per cent was too high even allowing for the levy collection.

[4] They should be treated with caution because it is not clear that they may not be fully informed as to the cost structure of the BPC and therefore may not be in the best position to pass judgement.

Figure 5.5 Views on Overhead Component

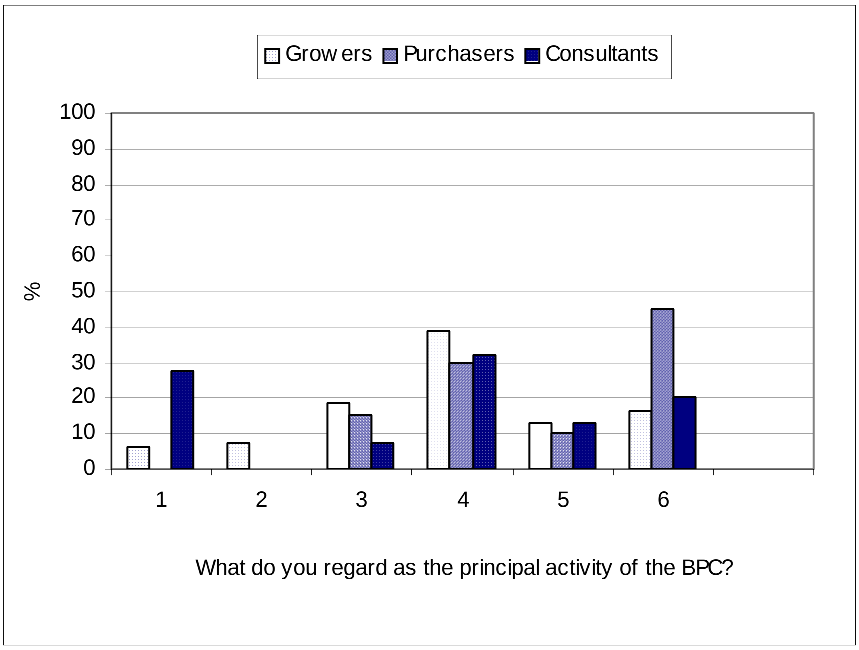


5.14 This section has highlighted that a majority of those surveyed wished to see the continuation of the BPC. Translating this to economic terms it may suggest that it is felt the BPC is perceived as providing an economic benefit otherwise it would not be supported. Although a significant proportion of respondents do clearly feel that they are not getting sufficient economic benefit from the BPC to justify the levy charged. In addition nearly 40 per cent of growers indicated that they have not been satisfied with the work of the BPC since its inception. It is also the perception of a large proportion of those surveyed that the costs of operating the BPC are too high.

5.15 Although the BPC clearly has a number of roles, those taking part in the surveys were asked which they felt was the principal activity and they were then asked to rate the BPC on this activity. They were also asked to list and rate other activities that the BPC carried out.

5.16 The principal activity varied between groups although in general promotion was the most cited activity. The activity ratings which are based on all mentioned and not just the principal activity highlight that generally the main activities are rated at around the three out of five mark. Although growers feel that the BPC is good at collecting the levy from them.

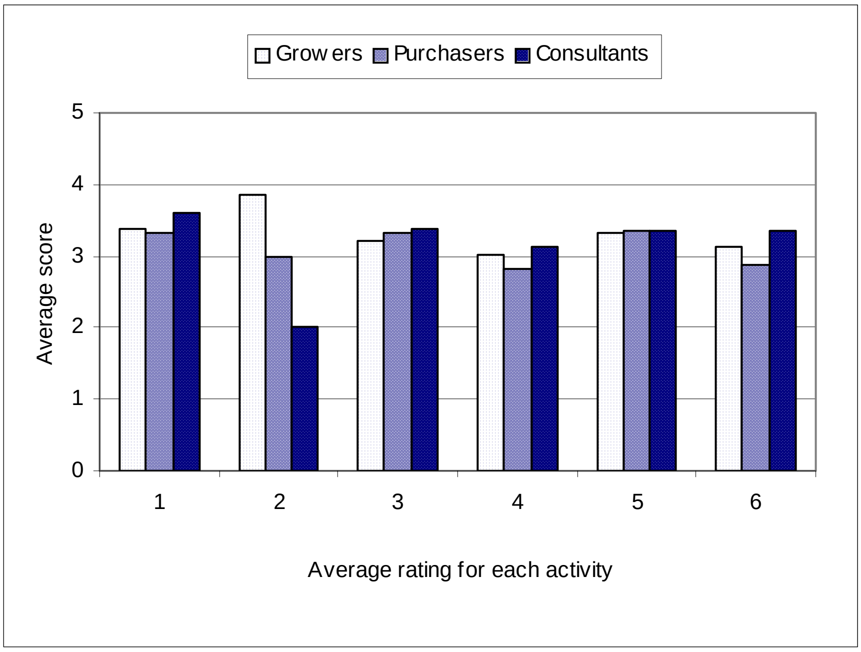
Figure 5.6: Principal Activity



KEY

1. Knowledge transfer
2. Levy collection
3. Market information
4. Promotion
5. R&D
6. Other activities

Figure 5.7: Rating of BPC Activities



KEY

1. Knowledge transfer
2. Levy collection
3. Market information
4. Promotion
5. R&D
6. Other activities

5.17 A final finding on the overall view of the BPC is that a significant number of growers are not satisfied with the current system of Government appointed council members. They feel that there should be direct elections which would ensure that the members are accountable to those that pay the levy. The view was expressed that the Government does not directly fund the BPC and therefore should allow those that do to elect at least part of the Council.

5.18 This section has considered the overall view of the BPC. This has been used as a proxy for whether producers feel that they are getting value for money or, put another way, whether they feel they are obtaining an economic benefit from the BPC.

5.19 We have found that a majority wish to see it continue although a significant minority do not. Those that do not wish to see it continue have significantly less contact with the BPC and are less aware of its activities. As mentioned above, this might suggest that dissatisfaction is due to lack of awareness although equally it might highlight that the lack of value achieved from the BPC is reflected in lack of contact and use. Nearly 50 per cent of respondents feel the overhead level of the BPC is too high and this reflects a general perception through the industry that an insufficient amount of the levy funds are spent 'adding value'.

Study Findings on BPC Activities

5.20 As mentioned earlier, surveys of growers, purchasers and those advising the industry were undertaken to gauge their views on the operation of the BPC in each of its main areas of activity.

Research and Development

Awareness of Activity

5.21 Around 20 per cent of growers listed R&D as an activity of the BPC. However when asked later whether they were aware that the BPC carried out research and development 97 per cent stated that they were.

5.22 To assess awareness further a number of projects (taken from those reported in the annual report and accounts 2002/03[5]) were cited and respondents were questioned as to awareness of the projects. Overall, there appeared to be a high level of awareness of the R&D that the BPC was funding. Just under 50 per cent of grower respondents claimed to be aware of all eight projects, whilst only 5 per cent claimed to be unaware of any of the projects.

[5] The selected projects were taken simply on the basis that they had been reported as recently completed. They were not meant to reflect the distribution of expenditure between research organisations and not all major recipients of funds were represented. The question was only attempting to gauge awareness and usefulness of projects undertaken.

Table 5.2 Awareness and Rating of Research Projects

	Purchasers		Advisors		Growers	
Project	A	R	A	R	A	R
Early warning device for soft rot detection	69	3.44	69	3.18	59	3.03
Monitoring and control of *Ralstonia solanacearum*, the quarantine bacterium which causes potato brown rot	88	3.43	87	3.74	85	3.55
Improving potato seed health using molecular diagnostics	72	3.39	84	3.40	70	3.29
Prediction and prevention of black dot	92	3.29	92	3.46	84	3.20
Optimising CIPC application to stored potatoes and evaluation of environmental issues	88	3.50	93	3.55	84	3.18
An investigation of the potentially detrimental effects of CIPC use on the processing quality of stored potatoes	88	3.14	88	3.31	80	3.21
Epidemiology, autecology and control of potato powdery scab	80	3.55	83	3.40	78	3.15
A novel and rapid diagnostic system to predict bruising	84	3.62	99	3.65	86	3.62

A = Awareness (per cent of respondents), R = Average Rating (on Scale 1 – 5 5 very useful)

Expenditure on Research and Development

5.23 The earlier analysis on the overall size of the BPC indicates that the overall funding for the BPC is certainly not viewed as too low. This therefore may be seen as an effective constraint on the activities that it can undertake. The question is therefore within this overall budget do growers want the balance of activities changed. As Figure 5.8 highlights for levy payers around 60 per cent either did not express an opinion or felt that the distribution of expenditure was about right. However, the remaining 40 per cent were split as to whether they wanted more or less research conducted. Unsurprisingly given their position a higher percentage of consultants wanted an increase in research spending. These results would suggest that there is no clear impetus from the industry in terms of changing the R&D spend of the BPC. Of course this does not mean necessarily that the most economic level of research and development is undertaken, but that within the constraints set for the BPC there is a marked split between those wanting to increase expenditure and those wishing to decrease expenditure.

Figure 5.8 Distribution of BPC Funding

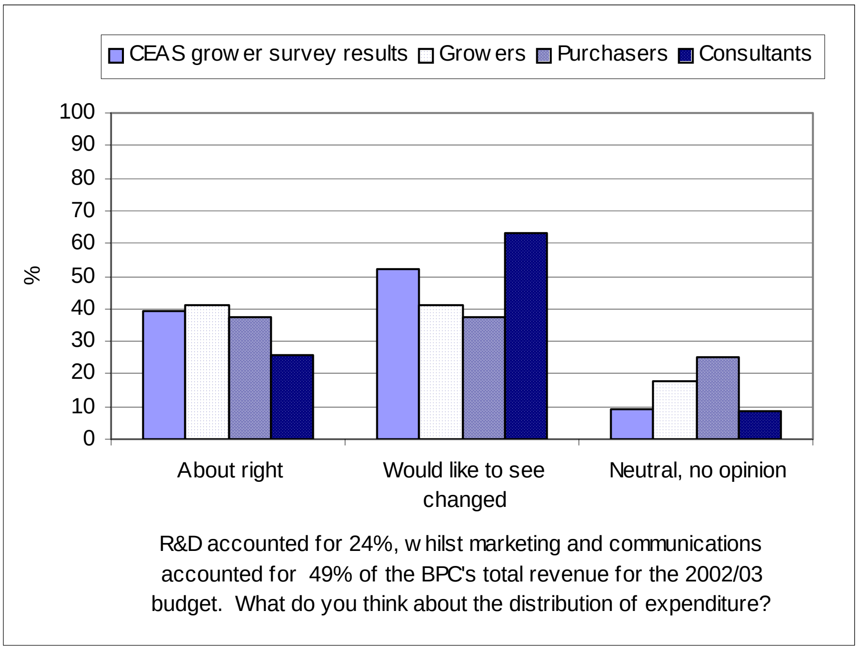
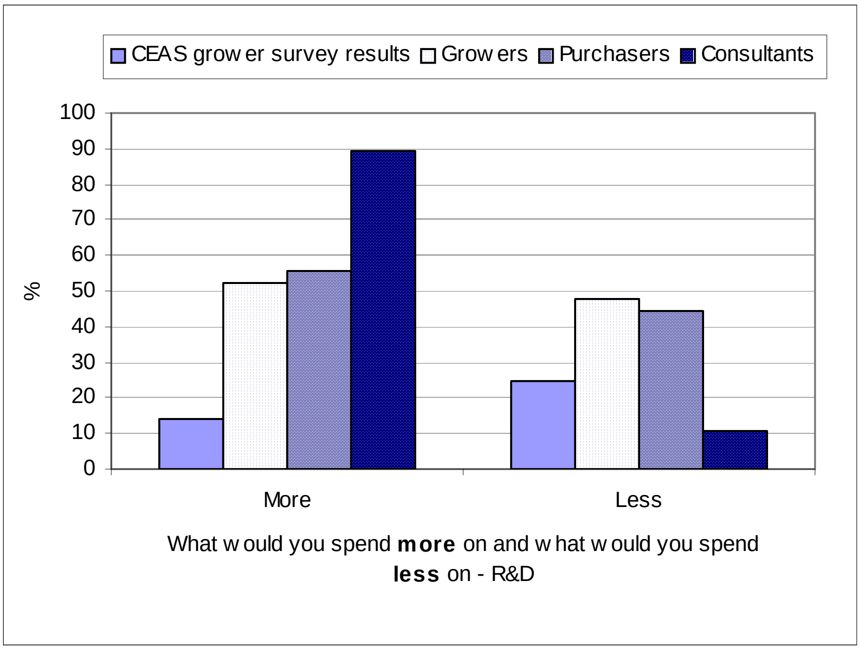


Figure 5.8 Changes in R&D Expenditure



Value of research

5.24 An idea as to the value of research to the industry was attained by asking producers to rate the selected research projects in terms of perceived usefulness. The findings are also highlighted in Table 5.2. In general the projects were seen as useful. There were differences between projects and between sectors of the industry. However, all projects scored over three and given that not all projects are directed at all sectors of the industry this would seem a reasonable indication that as far as the industry is concerned the projects that are commissioned are useful. This of course is separate from whether they are the most economically effective projects or whether they are using the best science available.

5.25 In conclusion our survey has highlighted that there is generally a high level of awareness of the research activity of the BPC. The view of levy payers in terms of the level of expenditure (within the confines of the income of the BPC) was split with some wanting more on research and some wanting less. In general respondents felt that the selected projects were useful. The ones indicated as most useful did seem to reflect those that the BPC found in its own survey of R&D views.

Further Evaluation of Research and Development

5.26 The survey results have indicated a general level of satisfaction with the R&D activities. This section analyses in more detail the activities, using information from discussions with industry bodies as well as a framework developed from the previous section. In the previous section a number of broad criteria were outlined as to assessing the economic efficiency and equity of levy funded research and development. Table 5.3 highlights our findings with respect to an overview of the research funded by the BPC.

5.27 An interesting issue is one that moves beyond efficiency to consider equity. The equity arguments outlined by Alston are such that levy payers should benefit relative to the contribution that they make. This is particularly complicated with a system whereby the organisation is funded 80 per cent through growers and 20 per cent through purchasers. In addition where particular levy payers have particular activities (for example storage, or processing potatoes) the question of ensuring an equitable distribution of research and also levy payment becomes particularly complicated. It is beyond the remit of this study, but an interesting exercise would be to evaluate who benefits from the research projects listed in the appendix and how this relates to their contribution to the activities of the BPC.

5.28 The process of measurement and assessment highlight that the BPC have good systems in place to ensure that commissioned research is delivered in a cost effective and timely manner. The specialist nature of the crop and the need to ensure critical mass in research means that relatively few organisations are responsible for the majority of BPC commissioned research. We examined project submissions and success rate of alternative organisations. We also considered the proportion of times that the organisations achieved their given milestones. There appeared no systematic difference in achievement between the main recipients of BPC funds

5.29 Successful project management is one thing, whether the most appropriate science is been undertaken is another. The BPC point to their industry wide consultation as highlighting the priorities for research and therefore the appropriateness of the work commissioned. However, whilst broadening the membership of the R&D committee to formally include post-farm industry representatives may be seen to help ensure the relevance of research to industry, it is not necessarily the case that ‘users’ of information, such as technical directors are the most appropriate people to commission research or understand how research is undertaken. A view expressed was that there is a potential role for the BPC in leading and co-ordinating all potato based research in the UK to ensure maximum gains to the industry.

Table 5.3 Summary of R&D Process

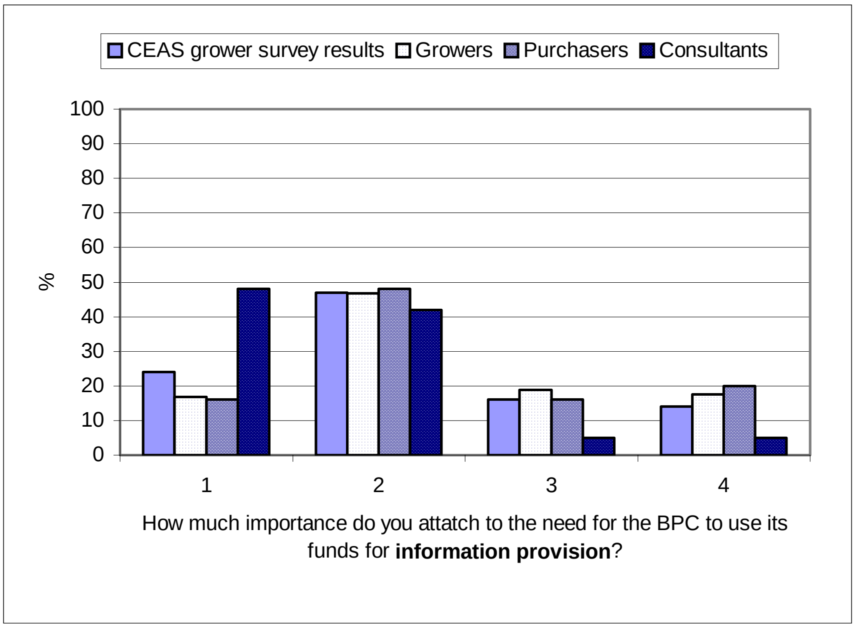
Area		Comment
Are benefits felt within industry?		Generally commodity specific research; GB industry benefits a specific criterion; No explicit evidence of assessment of the distribution of benefits between levy payers
Is research commercial?		Generally the research undertaken would appear to be inappropriable and therefore would not be undertaken by private industry
If there are 'spillover' effects is joint funding sought?		Evidence of this for environmental projects LINK etc. Each project considered for possibility of joint funding. In terms of private industry collaboration is encouraged
Relevance to Industry		Wide representation on R&D committee. Consultation and analysis undertaken of industry needs. However, limited scientific input.
Cost Effectiveness		Researchers required to specify potential benefit to industry in financial terms, projects rated on perceived value for money
Project Commissioning		R&D committee decide general areas that research will be commissioned in and invites tenders. Concept notes allow evaluation without excess demand on researchers time. If potential then full research brief required. No direct competitive tendering
Project Management		Very good project database with all project information in, Milestones, Completion information held, monitoring to follow up. Evidence of high proportion of projects completed on time
Post project evaluation		Financial Appraisal, monitoring of access to project information (web and hard copy)
Transfer of Information		Projects evaluated on KT, Reports and Summaries on web. Survey highlights high awareness of selected projects
Industry Satisfaction		Survey highlights reasonable ratings for satisfaction with BPC R&D activities overall and for usefulness of selected projects; Majority happy with level of expenditure; some would like to see more and some less.

Technology Transfer and Information Provision

Survey Results

5.30 Figure 5.10 highlights that the majority of those surveyed felt that information provision was an important role for the BPC.

Figure 5.10: Importance of Information Provision



KEY

1. Very important
2. Quite important
3. Not important
4. Neutral, no opinion

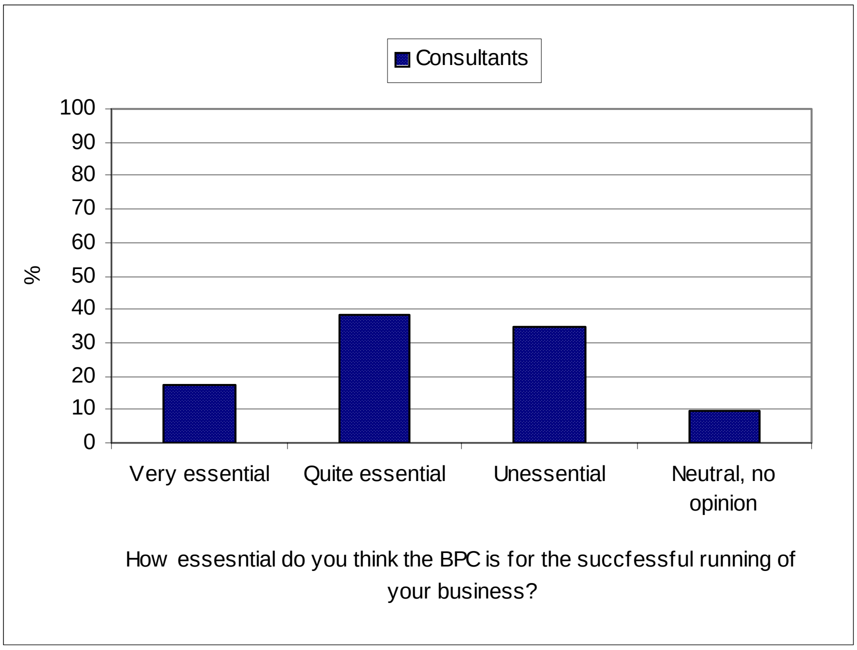
5.31 Respondents were then questioned as to the source of information regarding technology and the usefulness that they attributed to it. The results for growers are shown in Table 5.4. Of the BPC options, publications achieved the highest rating (second only to non-BPC industry) representatives. The relatively low score given to the supply chain team may reflect the change in focus of the BPC and the concentration on the chain as a whole rather than the grower.

5.32 The high score given to non-BPC industry representatives does highlight again the question of market failure. If industry is providing the information that growers require then the need for the BPC to operate in these areas is diminished. However, it may be argued that both consultants and industry representatives rely on BPC information and therefore the removal of the BPC would lead to a reduction in the welfare of the industry. This was explored in the consultants survey when they were questioned as to the importance of the BPC to their business (Figure 5.11).

Table 5.4: Rating of Sources of Information regarding Technology

BPC	**Number**	**Average Score**
BPC publications	155	3.38
BPC conferences/open days	140	3.04
BPC fieldsmen/ supply chain team	126	2.18
OTHER		
Trade press	135	3.24
Conferences/open days	124	3.24
Paid consultants	110	3.15
Non-BPC industry representatives (e.g. purchaser's agronomist)	130	3.70
Research institutes/universities	110	3.05
Other growers	119	3.23
Other *(Please state)*	11	3.27

Figure 5.11 Importance of BPC to Respondents to Consultants Questionnaire



5.33 Around sixty per cent of respondents rated it as either very or quite essential to their business. However, a significant minority (just over 30 per cent) rated it as unessential. Further investigation of the breakdown of those citing it as unessential in terms of job titles may give us further insight into this finding.

5.34 Although linked with the provision of market information, the following table highlights some interesting findings with respect to transfer of information. Respondents were asked to rate particular BPC publications and events in terms of usefulness. Growers and purchasers rated the weekly fax service and eyewitness as the most useful. Consultants on the other hand rated the MITT meetings and the research reports as having the most use to them. This group are particularly targeted by the MITT meetings and this relatively high rating reflects the results of the evaluations undertaken by the BPC at the meetings adding credence to their self-evaluation process.

Table 5.5 Rating of Information Services of BPC

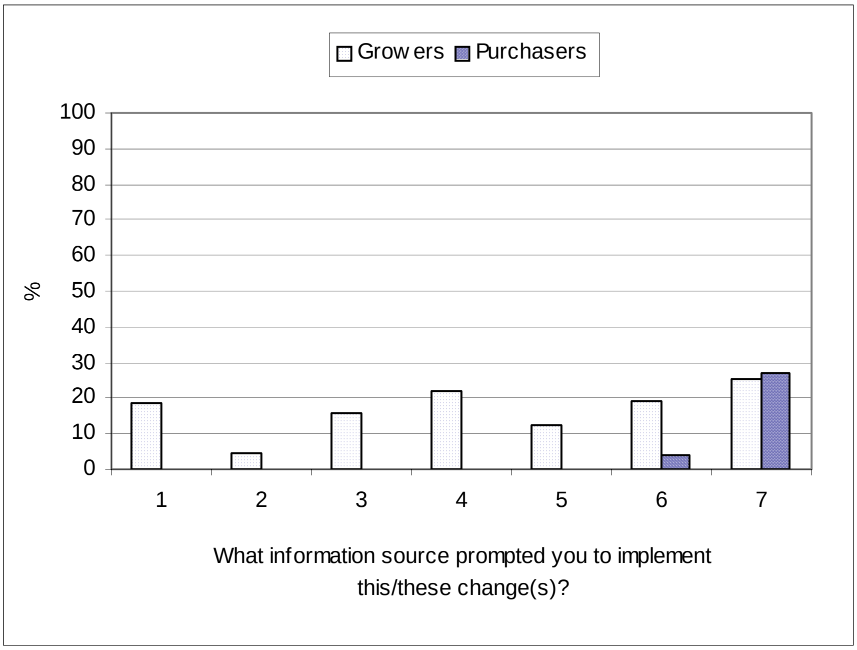
Publication	Grower	Consultants	Purchaser
Eyewitness (Industry digest circulated to levy payers)	3.02	2.93	3.45
Weekly fax service (Potato Weekly, Price Weekly)	3.44	3.30	3.40
BPC website	2.46	2.97	2.94
Regional crop and price reports	2.69	2.73	3.24
Ceefax	1.76	1.43	1.73
Reports, summaries of research and development projects	2.68	3.47	3.00
Statistical bulletins/annual statistical review	2.39	2.60	3.12
Annual report and accounts	1.78	1.71	2.29
Market information and technology transfer meetings	2.79	3.41	2.65

5.35 The website did not rate particularly highly across the survey respondents, scoring less than three. The ability of the site to be the main contact point is very important. Though it should be noted that the BPC has made substantial changes to their website since the survey was undertaken.

5.36 The earlier findings concerning the level of awareness of the randomly selected research projects might be an indication that the BPC is succeeding in its role of technology transfer. Although it is difficult to gauge whether awareness actually leads to useful actions by those involved in the industry. An admittedly crude approach was adopted to assess this and those surveyed were questioned as to whether they had made changes to the way they operate their business, what prompted these changes and how beneficial they were. Around 60 per cent stated that they had made changes to their business although relatively few cited BPC publications as the source of these changes (Figure 5.12).

5.37 Clearly the adoption process of new technologies is a complex process and producers are likely to obtain information from a variety of sources before adopting new methods. This is reflected in the fact that respondents tended to tick a number of the boxes. Relating to the earlier finding that growers found non-BPC industry representatives (such as purchasers agronomists) the most useful source of information regarding technology, it is also the case that they are the most cited information source for change to the business. This does not undermine the role of the BPC in technology transfer but does highlight that the strategy of targeting consultants and advisors through their MITT meetings is effective.

Figure 5.12 Source of Information relating to changes in Business



1. BPC publications
2. BPC website
3. Paid consultants
4. Non-BPC industry representatives (e.g. purchaser's agronomist)
5. Research institutes/ universities
6. Other growers
7. Other source

Note: Consultants were not asked this question

5.38 The need for benchmarking was highlighted in the Curry report and led to the establishment of the food chain centre. This is an area on which the BPC has focused, in particular the supply chain team. Those interviewed had mixed opinions as to the advantages of the devised system, but a number were very enthusiastic about its importance in spreading best practice through the industry.

Market Information

5.39 Table 5.5 highlighted the importance of market information to growers and purchasers, with both rating the weekly fax services as very useful. The purchaser survey as mentioned earlier tended to focus on the smaller purchasers and this finding reflects that BPC information is likely to be more important to this scale of purchaser.

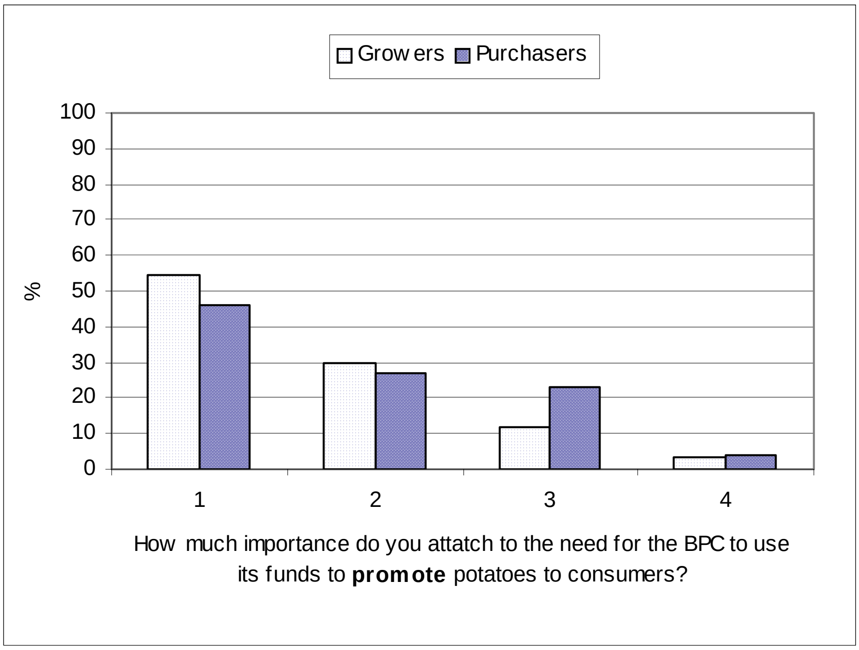
5.40 The interview process did find differences in opinion as to the value of market information. Some respondents felt it was essential and the only activity that the BPC should concentrate on. Others had concerns over accuracy and timeliness of information provided. Comments from the survey highlighted that there were concerns that the information was biased and that those surveyed would deliberately manipulate the information to their own advantage. The BPC stress that there statistical information is auditable and that no surveys are carried out that cannot be checked. This is relevant to the issue of the planting intentions survey which has been discontinued although some in the industry feel strongly that it should have continued. It was found that whilst the overall figures were relatively close the individual plantings varied considerably. This concern over its accuracy was part of the reason for cessation. The concern over information does appear to relate to an incident a few years ago when inaccurate information was provided (Council Minutes Feb 2002).

Promotion

5.41 Chapter 3 outlined the promotional activities undertaken by the BPC. In the last chapter the rationale for undertaking promotional activities was considered. This section examines the findings of the evaluation with respect to promotion.

5.42 As a first stage growers and processors were questioned as to how much importance they attached to the need for the BPC to use its funds to promote potatoes to consumers (Figure 5.13). Over half of growers and around 45 per cent of purchasers felt it was very important. In addition a further 30 per cent of growers and just under 30 per cent of purchasers felt it was quite important. Only 10 per cent of growers did not think it was important for the BPC to promote potatoes to consumers

Figure 5.13: Importance of Potato Promotion

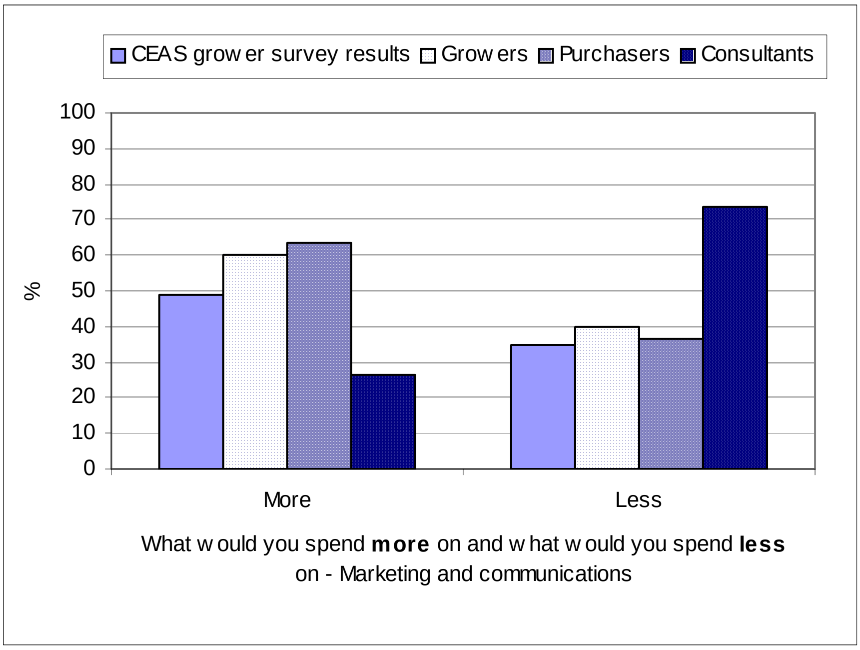


KEY

1. Very important
2. Quite important
3. Not important
4. Neutral, no opinion

5.43 This importance is reflected that the majority of those who felt expenditure should be redistributed (see Figure 5.8 above) felt that marketing and communications should be increased

Figure 5.14 Change in Expenditure Marketing and Communications



5.44 The results of the consultants survey reflected the earlier finding that they wanted less spent on marketing and communication but more on research and development. It is interesting to note that more respondents felt that there should be an increase in promotion than a reduction in research and development. This might indicate that there was a feeling that the revenue of the BPC should increase. However, as shown earlier this was not the case.

5.45 Although the BPC no longer engage in advertising in the press or on TV, this activity was included in the questionnaire. A large number of growers rated this category. This might give us an indication of respondents views on the usefulness of such activity. Although it might be the case that paid for promotional activities on radio were seen as advertising.

5.46 In Chapter 3 the activities surrounding National Chip week were described. As a first stage to gauging its value to the industry respondents were questioned as to their awareness and rating of National Chip week. The vast majority of growers were aware of the activity and they rated it as 3.32 on a scale of 1 to 5.

5.47 The question of the value of National Chip Week gained a mixed response during the evaluation. There were those, even producers of chips, who felt that it had little if any impact on their business. Whilst others argued that it was not a question of sales *per se* but the continued process of raising awareness of potatoes that was important and were very supportive of the activities. Success or otherwise of the promotion is perhaps secondary to the question whether there is a clear rationale for the BPC undertaking this work. Curry argued for example that levy board funding would be better spent supporting the Little Red Tractor logo than on generic advertising activities. There is also the issue that it promotes processed products for which the market failure rationale is less clear. However, through the chip shop and supermarket activity it is also the case that fresh products are promoted where the market failure rationale still exists.

5.48 This does though raise the question whether this activity would be undertaken at the same level by the private sector in the absence of the BPC. If its perceived value was real then the private sector might fund it, but whether it would occur at the same level or with the same effectiveness as promoted by the BPC is another question.

5.49 This leads us to another main promotional activity, health. The BPC has been heavily involved in promoting the health benefits of potatoes and the fab not fad campaign is the main focus of this activity. The BPC cite strong participation by levy payers (through car stickers, reaching educational establishments etc) as evidence of support for this work. As mentioned in the previous chapter, in an economic sense, promotional activity such as health generates spillover effects and the argument could be made that this promotion should not be undertaken by industry bodies. However, it was clear through the industry interviews that there was strong support for this type of promotional activity.

5.50 The more general promotional work of the BPC also requires assessment. It is clear that many of those interviewed see this as a key role for the BPC. There are possible economic arguments for an organisation to undertake this activity. For example if we take the case of food scares, it is clear that these have the potential to damage an industry considerably (for example salmonella in eggs). An industry body has the ability to place these in context and for example if the scare is unfounded ameliorate the impact on the industry. Evidence from the strawberry industry in the US shows a very significant impact of the activities of the promotional board in offsetting the economic impact of a food scare. This role is not just beneficial to the industry itself but also to society as a whole because of the economic damage that scares can create. This has been shown by the BPC as at the time of ring rot scares, consumers began to indicate concern with the healthiness of potatoes that had not existed in earlier surveys. This occurred even though ring rot had no implications for human health.

5.51 The BPC uses the industry Advertising Equivalent Value (AEV) technique to assess as a measure of success of promotional campaigns. Whilst accepting the difficulties with measuring impact of marketing there are some concerns about using AEV. These relate to such issues as whether news stories have the same impact as a sustained advertising campaign, how you measure bad news reports etc. Therefore in economic terms it may be argued that it is impossible to state that the promotional activity generated the equivalent of 13 times the spend on advertising. However, as a general crude indicator of the success of a campaign it may be considered as useful.

5.52 The fact that the BPC also use other methods to measure success, such as consumer awareness, means that they are able, with AEV, to build up a picture of the success of their activity. There is a clear process for review and action based on the findings of these results.

5.53 In a crude sense the continued decline in consumption of fresh potatoes may be taken as a reflection of the failure of the BPC in this area. However, this decline is clearly a function of a number of factors (such as changes in lifestyle etc) that are outside the control of the BPC. In addition there is little evidence of what the change would be in the absence of the BPC, that is we do not have a with and without situation that we can compare.

Seed Sectoral Group (SSG)

5.54 As discussed in Chapter 3 the Seed Sectoral Group has a number of roles including organising seed events, export promotion and variety information. Although questions were not asked directly of respondents concerning these activities, representatives of the trade were interviewed and use is made of BPC's own evaluation.

5.55 We have seen that there is an economic argument for export promotion. The general view obtained was a positive one towards the BPC, although the sample was small respondents who grew seed were overwhelmingly in favour of the continuation of the BPC. Seed industry representatives were very supportive of the seed events that the BPC helped organise and the evaluation of these events by the BPC indicate a high degree of satisfaction. In addition they felt that the export promotion work was helpful as generally the seed merchants were too small to undertake the work by themselves.

5.56 The steady increase in seed exports although reflecting an improvement in what the industry does may also be seen to indicate an area where the BPC is able to show a tangible impact and this is reflected in the support received from the industry. This is probably an indication of the situation that where the BPC is able to show tangible results support is stronger

Sutton Bridge Experimental Unit (SBEU)

5.57 At the time of the last review the future of SBEU was under consideration and a buyer was being sought. However, no buyer was found and therefore SBEU is still under the auspices of the BPC. Given that no private buyer could be found might reflect the inappropriable nature of the work undertaken there. Given that it is the only facility of its kind it may be argued that the industry would be at a disadvantage without the Unit. Therefore it would seem appropriate that as well as generating funds through tendering and conducting private research, it does absorb some funds from the BPC. Provision of storage research would therefore seem a clear case where market failure exists and the BPC operates to offset this failure. The industry interviews highlighted the perceived value of the work undertaken there. Our own detailed interviews with SBEU staff as to its operation highlighted an effective management system.

Summary of Interviews with Industry representatives

5.58 The survey results highlight the difficulty of assessing the BPC as opinions are divided as to where it may best add value. This was also the general finding of the industry interviews that were undertaken. Depending upon the individual circumstances of the business, the view as to which of the activities undertaken should be maintained, increased or ceased did vary. However, it is a fair reflection of the process to conclude that virtually all those interviewed did see a role for a statutory levy body in the industry. Although, some were considerably more enthusiastic for the role of the BPC than others.

5.59 Whilst they felt there should be a body it is not fair to conclude that they felt it should continue in its current form. The difficulty in the evaluation and for the BPC lies in the fact that although they generally felt it should be a smaller, 'leaner' organisation they had different ideas as to which activities it should focus on. For example although our survey highlights that growers feel that promotion and marketing is a key activity of the BPC, a number of those interviewed felt that it should concentrate on R&D and market information. Some industry respondents only considered the costs of the BPC and not the potential benefits. They saw the levy on producers simply being passed on to them in addition to the levy that they paid. This view of the system ignores the fact that the research work for example funded by the BPC could have lead to lower costs of production and hence lower prices which could have more than offset the levy.

5.60 There was general consensus that the cost of levy collection was too high and that the overheads of the BPC were also too high. That is there was a feeling that too much of the income went on self-administration and not enough on 'adding value'. This was a term that came up repeatedly in the interviews.

5.61 It is clear that some of those with integrated supply chains felt that the BPC was not adding sufficient value to their business to warrant the levy. However, others with similar supply chains were very positive as to its potential value to the industry. The point was made that short term savings might be made by removing the BPC but that longer term there would be costs in terms of a less well represented industry as well as potential productivity losses.

5.62 One area where there was general agreement was in the area of health promotion and general 'defence' of the industry. It was felt that the BPC played a useful role in these areas and that value was created by these activities. Though many of those interviewed belonged to other industry bodies the 'impartiality' of the BPC and the fact that it represented the whole supply chain was seen as important.

5.63 To summarise the industry representatives generally supported the concept of an industry-wide body and were looking for an organisation to provide leadership and add value in the chain and not one that was a drain on resources.

Summary of Findings in relation to Economic Evaluation

5.64 The previous chapter found that in terms of the underlying rationale for the BPC, the results are mixed and complex. However, this chapter has considered the industry views of the work.

5.65 The results would appear to indicate a relatively polarised industry between those supportive of the BPC and those who are against the BPC. The latter group, whilst in the minority of those surveyed, generally held strong views and appeared to see little economic value in any of the activities undertaken.

5.66 However, overall there appears to be significant support for the BPC operating within each of its four main areas. That is, whilst there were clear differences in the views of the importance of the individual activities no one activity came out as having a perceived value lower than the others.

5.67 Few of the specific activities cited scored particularly highly in terms of usefulness. This probably reflects the diverse needs of the industry with some being more interested in certain activities than others. At the same time few activities were rated particularly poorly either. This might in some part reflect the impact of a one to five rating system but in other studies this system has identified problem areas

5.68 A majority of levy payers felt that the balance of expenditure is right and those that wanted to see it changed are split as to whether more should be spent on marketing and communication or research and development. This again highlights a key finding of the review that there is little overall consensus as to what is required of the levy body.

5.69 Whilst the majority of respondents felt the current system of levy collection was fair, there was general concern expressed that the cost of collection was too high and that efficiency gains could be achieved by reforming the system.

5.70 There was also general concern expressed that the operating costs of the BPC were too high. This in part relates to the levy collection issue.

5.71 A higher proportion of levy payers appeared to be dissatisfied with the BPC than wanted to see it disbanded. This might suggest that they did not feel that they were obtaining value for money from the activities carried out by the BPC.

6. LEVY FUNDING

Introduction

6.1 The particular focus on Levy funding that arose as part of this evaluation warrants further attention been given to the subject.

6.2 Under the Potato Industry Development Council (PIDC) Order 1997 (as amended) producers and purchasers of potatoes are required to register with the BPC. This provides the BPC with information relating to their potato plantings or purchases in the form of a return and a levy payment which funds the BPC's activities.

6.3 The PIDC (Amendment) Order 2002, which came into effect in 2003, introduced a two-tier system of levy rates which applies to both producers and purchasers:

a). An ordinary rate for payments received by the due date; and
b). A higher rate for payments received after the due date.

6.4 The current registration thresholds for growers and purchases have also been increased from one hectare to three hectares and from 100 tonnes to 1,000 tonnes respectively. The main reason for these changes was to try and reduce administrative expenditure. However, by doing so, the BPC does not receive any statutory information from the growers and purchasers who fall below the threshold.

6.5 The producer levy rate for 2002 was £40 and was subject to a prompt payment discount of £1 per hectare. Invoices are issued in September with payment due by 1st November. The potato purchasers' levy for 2002/03 was 17 pence per tonne, invoiced quarterly in arrears and is based on monthly returns of tonnage purchased. Purchasers who do not make monthly returns are invoiced according to estimated tonnage and adjustments are made when actual returns are received. A system for estimating plantings, where producers have failed to make area returns is also in place. Examples showing how the tonnage levy rules apply can be seen in Figure 6.1.

6.6 Income which was generated from grower and purchaser levy payments for 2002/03 can be seen in Table 6.1, both of which observed increases despite registration thresholds being increased. This is due to the increase of levy for both growers and purchasers from £36.50 per hectare in 2001/02 to £39.00 per hectare in 2002/03 and 15 pence per tonne in 2001/02 to 17 pence per tonne in 2002/03 respectively.

Figure 6.1: Examples showing how the tonnage levy rules apply

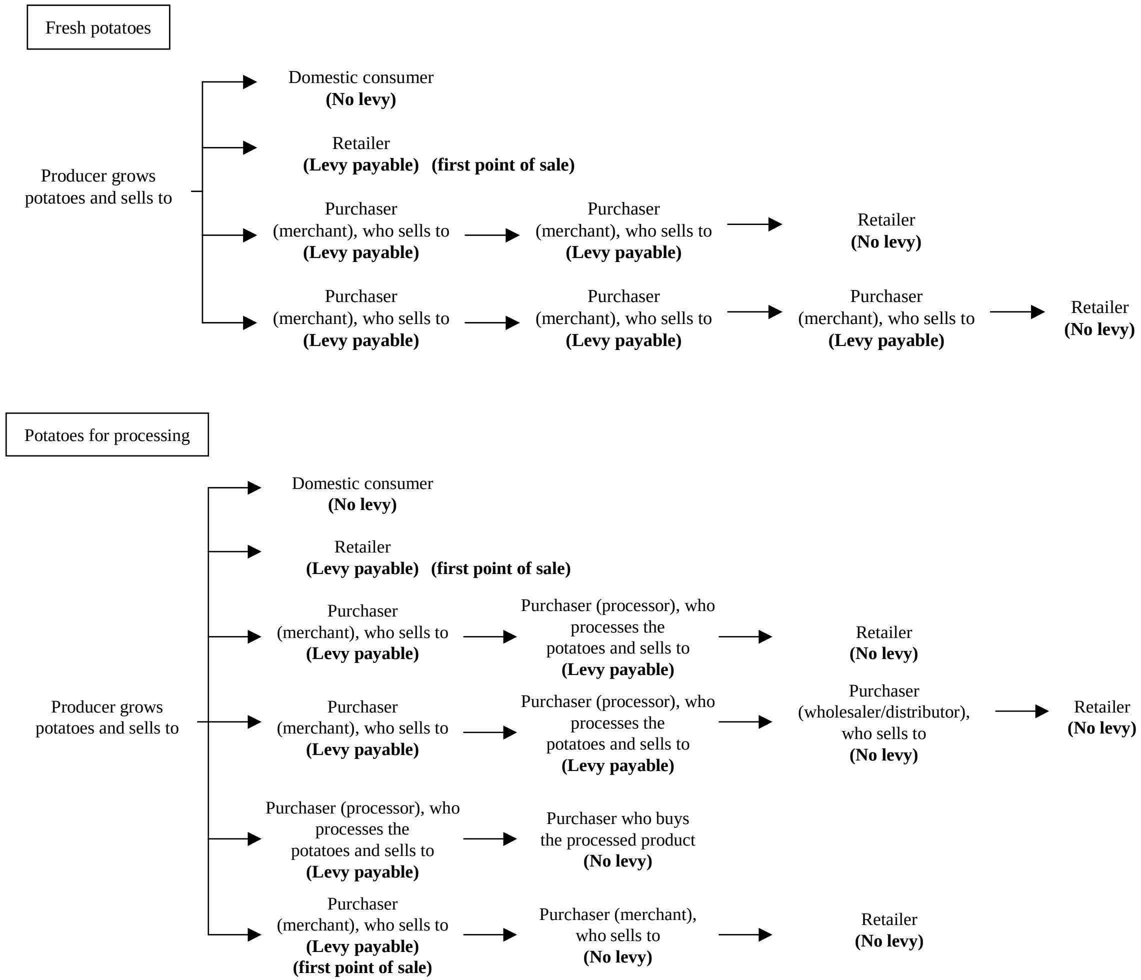


Table 6.1: Income generated from grower and purchaser levy payments

	2001/02 (£000)	2002/03 (£000)	% change
Grower	4,801	5,092	+6.1
Purchaser	1,047	1,281	+22.3
Total	5,848	6,373	+9.0

Source: BPC

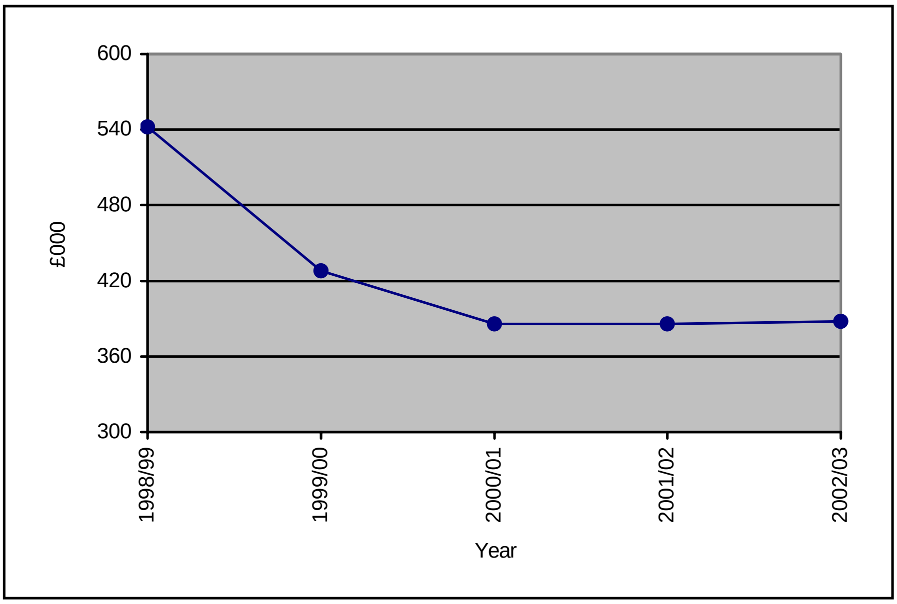
6.7 The BPC, on equity grounds, and in line with its statutory obligations, takes a strong stance on levy collection and from Table 6.2, will eventually achieve at least 99 per cent collection. Costs involved in achieving this can be seen in Figure 6.2. These costs may seem relatively high but are due to the dual levy (ordinary and higher levy rates) collection system in place. However, although expensive, benefits of this system include low risk of levy leakage and fairness.

Table 6.2: Levy collection performance by year

Levy collection year	Growers (%)	Purchasers (%)
1997/98	99+	99+
1998/99	99+	99+
1999/00	99+	99+
2000/01	99+	99+
2001/02	99+	97
2002/03[1]	98.2	97

[1] As at September 2003

Figure 6.2: Levy collection expenditure



6.8 The main problems the BPC experiences in collecting the levy include undeclared plantings, unregistered growers, understatements of plantings and general errors which often relate to field references, particularly where potatoes had been grown on rented land. One way the BPC counteracts these problems is by undertaking aerial surveillance which helps towards analysing outputs and undeclared plantings. Another is to employ field officers and auditors to systematically check the accuracy of area and tonnage declarations made on returns.

6.9 The BPC is trying to alleviate these problems by developing a new planting return which will incorporate a map, based on information available to the BPC.[6] By doing so, they aim to increase administrative efficiency, thus reducing support costs for the BPC.

6.10 In order to save on solicitors' costs, the BPC now has an in-house system for dealing with prosecutions. BPC staff now have the ability to issue summonses, when returns are not received, despite reminders and warning letters.

6.11 Within the imposed restraints the BPC has been effective at ensuring that levy has been paid. However, there is concern within the industry as to the cost of levy collection. Although costs fell between 2000 and 2001 slightly (due to taking solicitors in house) the costs have not fallen as the number of levy payers have declined dramatically. For example, the change in thresholds introduced in the last year does not seem to have reduced the cost of levy collection. This perhaps highlights the high fixed cost with levy collection and the associated costs of chasing late payers.

6.12 Concern was expressed during this review that the penalty for late payment was not sufficient a deterrent. In addition many felt penalised in terms of having to foot the bill for those who consistently evaded payment. An advantage of the Single Farm Payment (SFP) system that is discussed later is that the deterrent could be much larger in that the business could lose its whole entitlement as is the case with fraudulent IACS claims at the current time.

6.13 The levy system was reviewed with a working party undertaking a detailed evaluation and industry wide consultation. However, it has been clear through the process of this evaluation that levy collection and particularly the high cost of collection is an issue of importance to the BPC as well as the industry as a whole.

6.14 There are also issues concerning regulatory burden on producers that could be overcome with a simplified system. Other levy bodies do have alternative ways of collecting the levy. These include on a tonnage or a turnover basis. It is clear that there are a number of pluses and minuses concerning the different approaches. However, it is also clear that even if the area basis was the most favourable approach there is considerable duplication involved with the data requirements from farmers for other payments such as IACS or the new SFP system. It is recommended that the issue of levy collection is re-examined.

[6] The BPC has adopted a Geographical Information System (GIS) which will allow crops areas on statutory planting returns to be compared directly to actual field areas.

Whilst changes such as a closer link with the soon to be implemented SFP system will require legislative changes they have a number of advantages.

6.15 The risk of losing the whole of SFP for incorrect claims is more of a deterrent for possible evaders than the current system. Farms would only have to supply information once avoiding duplication and reducing the regulatory burden. Significant savings could be made for the BPC in levy collection costs. These could lead to a lower levy or greater spending on front line activities. The fact that the BPC might still bill the co-operator will keep the connection between the organisation and the levy payer. This is something that a number of those consulted as part of this evaluation raised

7. DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

Introduction

7.1 This chapter brings together the findings from the earlier chapters, and makes a number of preliminary recommendations. In particular it brings together the earlier work to address the main objectives for this study which were to assess for each of the main activities of the BPC:

i. The nature and current extent of any market failure;
ii. The suitability of the policy instruments adopted, taking into account subsequent market developments in the production and distribution of potatoes;
iii. The impact of the BPC's activities on the industry and the value for money that these activities represent;
iv. The levy arrangements, in terms of operations and scope and possible improvements;
v. The current performance indicators relating to the achievement of policy objectives, especially with regard to measurability and significance;
vi. Efficiency and possible improvements to cost effectiveness.

7.2 Although there are clearly areas of overlap between the objectives, for ease of exposition each will be addressed in turn

i) Market Failure

7.3 Chapter 4 presented an analysis of issues surrounding market failure. The conclusion was reached that given the nature of the potato industry in the UK, the market failure rationale is not as clear cut as it was in the past. The old model of a large number of producers of homogeneous products is no longer relevant to a large proportion of the industry, in particular the processing sector.

7.4 Here integrated supply chains (with direct contracts), differentiated final products that are subject to considerable private sector promotion and advertising, technical support and own research may be argued to greatly diminish the role for the BPC in terms of its ability to add value.

7.5 However, even in this case it may be argued that there are market failures which intervention by government may alleviate. This relates to Alston's point that even if firms are of sufficient size they will not undertake research which is inappropriable or they will undertake it at a sub-optimal level. Therefore there is a place for an organisation that funds and facilitates research in these areas. However, as discussed below, whether this is the BPC is a separate issue.

7.6 Whether there are market failures in the promotion and marketing of potatoes and whether it matters for society is less clear than in the case of R&D. For fresh potatoes it may be the case that in the absence of the BPC promotion would not occur to the same extent. The question is whether promotion increases the level of social welfare. This may depend upon whether promotion simply leads to a substitution between alternative foods (pasta, rice etc) or whether it leads to the substitution of more healthy foods for less healthy ones. Again whilst there may be a role for a body to promote health promotion it is not necessarily the case that this is a role for an industry organisation.

7.7 In terms of knowledge transfer the market failure issues are also unclear. It is clear for example that in many countries extension activities are seen as a role for the private sector. This might undermine the rationale for an organisation that exists through government intervention providing such services. However, given that knowledge transfer is linked to R&D similar arguments for provision may be made.

7.8 It is clear that market information is important for the proper functioning of markets. However, again it is less clear as to the extent that information would not be provided in the absence of a levy body. Though our findings suggest that there may be problems arising as to the existence of asymmetric information.

7.9 A further form of market failure is the one that relates to the role of the BPC in acting as an interface between government (and regulation) and the industry. This may also be seen to be linked to its role in dealing with such issues as food scares and other related issues.

ii) Suitability of Policy Instruments

7.10 As part of the development of its corporate plan, the BPC embarked on an extensive consultation process with the industry. This was in part due to the realisation that the industry was evolving rapidly and that the BPC needed to reflect this development. Two key changes may briefly be summarised as a move to a campaign based approach and also the development of supply chain teams to replace the fieldsman system.

7.11 The development of the supply chain team is an example of how the BPC have attempted to respond to structural changes within the industry. In essence the BPC have attempted to become more integrated in the same way as the industry. A further example can be seen in the development of the benchmarking module for the processing sector. This highlights the awareness of the BPC of the needs of the current structure of the industry.

7.12 The approaches adopted by the BPC to achieve their objectives would appear suitable and the recent developments indicate that the BPC is structuring itself to reflect the structure of the sector. However, opinion is divided as to the extent that the BPC is adding value through this format of delivery especially in the processing sector.

7.13 A further example of how the BPC has adapted its delivery is the increase importance given to achieving knowledge transfer through workshops and other similar activities targeted at advisors in the industry. This reflects the reality that the private sector (in terms of independent and company agronomists, consultants and technical advisors etc.) are increasingly the main source of information to levy payers.

7.14 In marketing, the strength of the retailers is noted and the BPC works with these regarding in-store promotion and other activities. Given their dominance in the sales of potatoes it would appear reasonable that they are the focus of BPC activity.

7.15 Therefore there is evidence that the policy instruments of the BPC have evolved in line with the changing structure of the industry and market developments. This is separate from whether these changes have been effective and this is considered in the next section where value for money is considered.

iii. Impact of Activities on Industry and Value for Money

7.16 The economic quantification of the impact of the BPCs activities on the industry is a difficult task and we have had to rely on proxy measures.

7.17 For example, in research and development the awareness and perceived usefulness of a selected group of research projects was assessed. There was a generally high awareness of the research that was undertaken and the selected projects were generally rated as useful (scoring over 3 on a scale of 1 to 5).

7.18 In terms of knowledge transfer, of the 60 per cent of producers who stated that they had made changes to their systems it was industry representatives who were viewed as the main force. Relatively few cited BPC publications and information as the driver for the change. However, our survey of advisors sheds further light on this and highlights that advisors extensively use and value the BPC. In particular the MITT meetings. The fact that just under 60 per cent of respondents to the advisor survey stated that the BPC was either quite or very essential to their business may be seen to reflect that the BPC is having a positive impact albeit indirectly through the private sector.

7.19 Again in terms of evaluating value for money, reliance has to be placed on the views of those paying the levy. Our research leads us to the following conclusions:

a) Views of industry

7.20 The evaluation has found a significant minority of levy payers who are extremely dissatisfied with the operation of the BPC. It is inevitable that whatever the BPC does there will be a minority that will be opposed to its existence. However, the extent of this minority does raise fundamental questions. A clear difficulty exists for the BPC in trying to undertake a wide range of functions that parts of the industry deem as necessary. Clearly this leads to a compromise situation where supporters of particular functions feel that insufficient resources are directed at this aspect and hence are less satisfied with the BPC. However, this would appear to be an inherent problem and from the surveys and interviews there appears no clear aspect of the work which could be discarded without having some detrimental impacts on the industry. There is a diversity of opinion within the industry as to whether the BPC offers value for money. Measures such as views on the overall size of the BPC (in terms of income) and the level of levy payment indicate that a significant minority feel that it is too high, suggesting that they do not feel that it provides value for money.

7.21 The clearest indication of this diversity is that whilst 60 per cent of producers (40 per cent of purchasers) think that the BPC should continue around 30 per (38 per cent of purchasers) think that it should be disbanded.

b)Additionality

7.22 The second stage of assessing the value for money is the consideration of whether the operations of the BPC would continue in its absence, that is whether private sector (or indeed other public) bodies would conduct this work. Clearly additionality does, in part at least, relate to the market failure activities discussed above.

7.23 Given the significant market concentration in the downstream industries within the sector, there might be the argument that the ‘free rider’ concerns of a monopoly may be avoided. Therefore there is the potential for these firms if they work together to provide many of the services that the BPC provides in terms of research and development and for example promoting potatoes on health benefits. Though whether the level of operation would be the same as the BPC is another question. In addition, ADAS raise the point that if promotion occurs downstream in an imperfectly functioning market it might be the downstream industries that appropriate the benefits. This leads us back to a fundamental conclusion in that in terms of its traditional activities it is the growers, who are still relatively numerous and small (well at least relative to the processors and packers) that require an industry organisation.

7.24 In the R&D sphere it is clear that processes are in place to try and ensure as far as is possible that the work funded is and therefore unlikely to be funded by the private sector. In this sense the BPC is achieving additionality.

7.25 In terms of technology transfer, the picture is more clouded and relates to the dependence of the private sector suppliers on information (both market and technical) that is obtained from the BPC. The view of many in the consultants survey that the BPC was important to their business might be taken as an indication that a detrimental impact on knowledge transfer would occur in the absence of a funded organisation.

7.26 In terms of marketing and promotion, there is less certainty that some areas of the work would not be carried out. If the industry felt that there was a benefit from say national chip week or health (the fab not fad) promotion then it may well come together to undertake these activities. The relatively few large companies at the processing, packing and retailing end of the chain mean that they could effectively undertake much of the promotional work. If they chose not to this might reflect that they do not place much value on it. A further issue and one which is discussed in more detail below relates to health promotion. Given that this has benefits there may be the argument that other public sector bodies concerned with health should be responsible for this promotion.

iv. Levy Arrangements

7.27 The levy collection system works effectively within the considerable constraints that are set. The BPC works effectively to ensure that the levy is collected. Although pursuit of the final percentage may not necessarily be cost effective in terms of economic outlay, the general view is that it is necessary as if levy collection is not rigorously enforced then there may be an increase in non-compliance year on year.

7.28 The dual area and tonnage based system in place does make levy collection a relatively costly exercise. There is consensus amongst the industry that the cost of collection is too high. However, there is less agreement as to the preferred methods of collection.

7.29 Alternative systems include a levy based on tonnage or turnover, or a closer linking of available information such as that required for the IACS (to be Single Farm Payment). On preliminary analysis each system appears to have potential advantages and disadvantages. For example, a move to a single system of collection on a tonnage or turnover basis (such as that operated by the HGCA) would reduce costs, but a concern expressed a number of times was that such approaches have the potential to disconnect the levy payer from the BPC.

7.30 Any review of the system needs to take into account equity issues. For example the current system may be seen as equitable in that every hectare grown is treated the same. However, it may be seen as inequitable as it is not related to the value of the crop. Therefore those growing high value crops (such as earlies) pay the same as those growing lower value crops (such as processing potatoes) although the returns from the enterprise may be very different. In this sense equity may be better achieved by basing the levy on turnover.

7.31 There are difficulties within the BPC of ensuring equity by linking the benefits to the levy paid. For example, should it be the case therefore that 80 per cent of any benefits accrue to the growers and only 20 per cent to the purchasers as this reflects the split of the levy? Alston might argue that on equity grounds this might be appropriate. However in terms of activities it is hard to envisage how they might be organised in this way.

v. Current Performance indicators

7.32 Analysis of BPC documentation and interviews with BPC staff leads to the following conclusions with respect to current performance indicators.

7.33 The objectives have been set after extensive industry consultation. They are enshrined with the BPC's corporate plan and are focused and transparent.

7.34 The BPC uses a number of methods to measure performance against those outlined in the Corporate plan for each of its main activities. These include an array of evaluation procedures. The objectives set have generally been found to be measurable and the methods used to assess achievement have been found to be relevant.

7.35 Given the nature of the work undertaken by the BPC, detailed quantification of the impact of its activities can be difficult. Therefore the BPC has often to rely on the views of those receiving the service. However, these views are collected, analysed and used in the planning process of the BPC.

7.36 There is sufficient documentary evidence to support the fact that the BPC is run in an efficient and effective way in terms of corporate management. Good systems are in place for financial and staff monitoring and in addition their processes for self-evaluation appear to work well. There are good systems for collecting relevant information for evaluation, reviewing this information and acting on this information. The committee structures appear logical and the generally wide representation from across the industry on these committees is useful.

vi)Efficiency

7.37 There are a number of aspects to the analysis of the efficiency of the BPC. At one level it relates to the processes in place to ensure that activities are undertaken in the most cost-effective way within the current constraints. At a second level it could be the case that the efficiency of the BPC in conducting these activities may be improved if the constraints imposed on the BPC were relaxed or altered (such as legislative requirements). At a third level could overall efficiency be improved through alternative methods of providing these activities (or even that they were not provided at all). Each of these will be discussed in turn.

7.38 Again, whilst this review is not a formal audit of the BPC, the evaluation has found that the BPC has a number of processes in place to ensure that within the constraints it faces it operates as efficiently as possible. Evidence can be found in the efforts to control overheads and these have fallen since its inception. As noted earlier, there is an audit committee in place which monitors the BPC's operations and ensures that these are conducted in accordance with statutory requirements and best practice. In addition a further remit for the committee is to ensure that appropriate financial disciplines and internal control systems are in place.

7.39 The most obvious constraint that could be changed to improve efficiency may be seen to the current system of levy collection. It is important to remember that it is not only the cost of levy collection but the associated overheads that may be saved (less support staff, smaller offices etc).

7.40 A second possible source of efficiency saving might be a reduction in expenditure on front line activities. However, we have already seen that there is a conflict of opinion within the industry as to where more or less money should be spent. In addition there is a risk that if expenditure is cut in particular activities the point may be passed where the section can no longer work effectively. This might relate to recruitment of quality staff as well as whether they are able to have any impact in their selected areas.

Broader view of efficiency

7.41 Two recent reviews (Curry and Haskins) have both raised the issue of possible efficiency gains of having closer co-operation between the levy boards. Although much informal work was going on before the Curry commission it was an area upon which they picked and they promoted the establishment of the Applied Research Forum. The underlying thinking behind this was:

7.42 ‘We urge the industry levy bodies and Government to improve co-ordination of their applied farming and food research, to avoid duplication and maximise synergies. This will enable the industry to take a broader view of industry-wide key goals in research. Mirroring the priorities board for strategic research, we believe that industry levy bodies should be setting in place joint priority-setting arrangements for their own applied work. This new Applied Research Forum should provide a virtual management structure for research that should agree the research strategy and help co-ordinate the agenda for every sector of the industry, including on technology transfer, training and education.’ (Curry Commission p113)

7.43 In a more direct approach Haskins argues that ‘Defra should seek opportunities to rationalise the various levy-funded organizations that it sponsors in respect of certain agricultural sectors for marketing, developmental and other purposes. There is scope to share resources (administrative, economic and research) between the various boards and to strengthen support for industry programmes if savings are realised through rationalisation.’

7.44 The question is whether economies could be made with the creation of a ‘super-levy’ body as promoted by Haskins. One approach might be to establish a single body for crops and another for livestock, or even simply one joint body for the whole industry. There are areas for potential savings in administration but this gain could be offset by a dilution of research interest in potatoes. On the other hand the creation of a larger body might attract more qualified staff. There is also the case that a super body might be able to better co-ordinate research in areas where there is spillover from specific commodities (areas such as soil fertility, rotations etc). It would also be in a position to better coordinate funding from other sources (such as government) to ensure maximum return from research from society’s point of view. A properly functioning Applied Research Forum might address some of these issues but given that each member represents a particular commodity group it is perhaps unlikely that sufficient funding will be devoted to these more general issues.

7.45 This leads to a more general question and that is whether the operations of the BPC could be better done by other organisations. For example a more radical view of the future may argue that the following should occur:

- Fund research through a form of the Applied Research Forum including research on management and social science issues of direct interest to industry.
- Adopt a similar generic approach towards knowledge transfer to farmers. This could be delivered through agronomists, advisors and consultants, who will often work on many different types of enterprises.
- Fund health through generic health campaigns and export promotion through generic export support mechanisms.

- Research of immediate relevance to processors can be funded by them (individually or collectively)
- Fund these generic agricultural schemes from CAP Pillar 1 modulation and scrap the levy
- Allow a voluntary potato organisation that can collect and disseminate information to its members and advertise if it wants to.

7.46 Whilst it was not possible within this research to undertake a detailed evaluation of this possible model, it is something that may be addressed in a wider review of levy bodies.

Preliminary Recommendations

- The first recommendation is that the issue of levy collection is examined again. Even if a tonnage or turnover levy is not favoured as in the last review of the system, there are clear savings to be made by linking the current system to the upcoming SFP. Although this may require legislative changes it makes clear economic sense and will also reduce the regulatory (red tape) burdens on farmers who will no longer have to fill out two forms.

- The second recommendation is that further analysis is undertaken relating to the costs and benefits accruing to the various groups of levy payers. This could address issues such as whether there is equity in relation to the distribution of research expenditure (for example on issues relating to seed, processed and fresh), whether only particular groups benefit from marketing expenditure and whether the current system of area payments is unfair on producers of lower value products. This would provide an overall picture of the equity of the current arrangements.

- It would seem sensible that to ensure accountability that those on the Board of the BPC were answerable to the industry in a more direct fashion than is currently the case. If the Council is funded by levy payers then there perhaps should be direct elections onto the council. Any perceived lack of accountability may in part be responsible for the sense of alienation some have from the BPC.

- Although bearing risks in terms of the potato industry losing its identity, there are also attractions to a closer relationship with other crop levy boards. Whilst the administrative savings might not be huge they are likely to occur. In addition, a bigger organisation will have the ability to co-ordinate and lead research in a more coherent fashion than a number of smaller organisations even if they acting co-operatively. It is recommended that this issue is investigated as part of the upcoming review of levy boards. It is also recommended that this review looks more widely at whether the activities of levy boards may be better done elsewhere.