



28th June 2010

Ms Yvette Goss
Administrative Coordinator
RDC Inquiry
Productivity Commission
LB2 Collins Street
Melbourne Vic 8003

Dear Ms Goss,

Submission to Productivity Commission

This Association has welcomed the opportunity to prepare this submission. It has allowed our members to clarify their views on this contentious matter, whilst not always unifying those views.

This is a feature of this Association, which remains determined to retain the elements of a debate with some logic, but not yet attracting majority support. The PGA does not suppress views to achieve unity.

In summary, our members are very disappointed in the research results achieved by their compulsory production levy payments, across the board.

We believe the costs are too high, the productivity gains are too low, and the research agenda is not adequately controlled by the producers who pay the bills.

The federal government involvement in the levy process is currently conditional on their unhealthy influence of the research agenda. This is not acceptable to the PGA membership.

Indeed, PGA members would prefer to forgo matching payments from government rather than continue to accept the conditions upon which those matching funds are currently provided.

Despite our disappointment, PGA members generally still accept the need for compulsory production levies to fund research, but do so reluctantly, and with conditions detailed in our submission. This support is based more on the lack of a viable alternative than on satisfaction with the status quo.

This PGA position is also based on the view that the abandonment of all levies is currently an unrealistic political objective. However, a move to voluntary levies remains a viable option for this Association if the outcome of this inquiry is to merely tinker with the edges of a serious economic problem for Australian producers.

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Further, we believe the directors/members of RRDC boards should be selected by the producers, not by ministerial appointment, but we do not favour direct election of those directors.

This Association could point to many breaches of good management and governance within the RRDCs, but we have confined detailed analysis to one of their number, the Grains Research and Development Corporation.

Please do not conclude that we are happy with the performance of the other RRDCs.

Thanking You

A handwritten signature in black ink, appearing to read 'R Gillam', with a long horizontal stroke extending to the right.

Robert Gillam
PGA President

Encl: 2 submissions



Submission to the
Productivity Commission Inquiry
Into
Rural Research and Development
Corporations

*Pastoral House
277-279 Great Eastern Highway
Belmont WA 6104
Phone: (08) 9479 4599
Facsimile: (08) 9277 7311
e-mail: pga@pgaofwa.org.au
Internet Site: www.pgaofwa.org.au*

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**SUBMISSION TO THE
PRODUCTIVITY COMMISSION INQUIRY INTO
RURAL RESEARCH AND DEVELOPMENT CORPORATIONS**

BACKGROUND

The opportunity to prepare a submission for the Productivity Commission on rural research in Australia has aroused significant discussion within the Pastoralists and Graziers Association of WA (PGA).

We are an organisation with the capacity to challenge well established rural industry conventions, preconceptions and assumptions, as witnessed by our pioneering role in the demise of both the wool reserve price scheme and the wheat single desk.

Both those challenges arose from a fundamental philosophy, shared by most PGA members, that somebody's good idea ought not become everybody else's financial commitment. All rural producers are entitled to good ideas, but they are not entitled to impose those ideas on all other producers, irrespective of their role on industry representative bodies. Nor is the government required or entitled to form an alliance with such efforts, without the closest possible scrutiny.

Levies on agricultural production should be the exception rather than the rule, and should be confined to programs from which the benefit is virtually inescapable for all levy payers.

Challenges to the reserve price scheme and the single desk did not arise from an Association of people with homogeneous views, so this submission will not represent the views of all Members. But it will represent a view divorced from the self-interest of rural producers who enjoy roles within the current rural research corporation structure.

THE CURRENT STATE OF THE ART OF RESEARCH IN AGRICULTURE

One view of the current state of rural research and development shared by all three stakeholders, producers, government and scientists, appears to be universal. In each case, it is failing to satisfy their objectives:

- Producers are alarmed about the cost, the industry politics, the intrusion of government, and the declining output of significant new information to improve productivity on farms and pastoral stations;
- Government is sufficiently concerned to require the Productivity Commission to conduct an inquiry, although we would not pretend to anticipate the reasons behind that concern, and;
- Scientists are deserting the field. They are frustrated by the politics, the treadmill of short term funding, the critical scrutiny of people who may not understand their work, and the tenure of a fruit picker. This has evolved amongst a group of people who have historically preferred to pursue a career that would be intellectually, rather than financially, rewarding.



This Association prefers to confine this submission to the concerns of producers, but we will occasionally divert to support two particularly important points:

- we can do research without the government; and
- we cannot do research without scientists.

THE CURRENT AUSTRALIAN MODELS OF RURAL RESEARCH

PGA Members are universally supportive of the need for research to improve the productivity of Australian livestock and agricultural businesses.

The method of funding such research does not attract a unanimous view. Views vary from independent voluntary funding, to support for a compulsory levy irrespective of the existence of matching funds from government.

However there is an almost universal PGA view that the current RDC structure, including the industry owned corporations (IOCs), have been quite ineffective for decades in advancing the productivity of our businesses, which would, of course, improve our competitiveness.

For example, each year many WA producers pay a higher percentage of gross revenue in levies than they reap in annual productivity gains, despite claims to the contrary from “independent” assessments.

These agricultural levies, at one or two percent of gross proceeds, may seem trivial to the casual observer, but they are very significant to the economics of agricultural businesses.

Most WA farms generate 70% of their profit in 30% of years, so it is normal for these businesses to pay more in levies than they pay in income or company tax, in most years.

If a rural producer can achieve a six percent return on a cash investment, then a levy payment of \$1,000 is the equivalent of a \$16,000 cash investment by that producer, in opportunity cost. Therefore a wool producer growing 100 bales per annum, and making a levy payment of \$2,000 is making the equivalent of a \$32,000 capital investment in rural research.

This is not a small contribution from a farming business. Levies significantly affect their profitability. This is not understood by scientists, nor by government.

Although it attracts more attention from State farming organisations, and the media, inconsistency of strategy of RDCs is less important than the high cost of levies, but it is also a plague on the levy process.

For instance, ten years ago, wool levy management was significantly restructured. Implicit in that restructure was the universal request from State farming organisations that levy expenditure must not support wool promotion. Within a decade, that commitment was overturned by wool industry politics based more on mulesing bans than on the lack of progress in wool research and development.

This is not unusual. Indeed, it is common in agricultural circles for issues such as rural research and development to be discussed during hard times. Such hard times do not coincide with the likelihood of good long term policy discussion.



These starting points demand change, and that change ought not invoke the reintroduction of old, failed models. The rural research area is an embarrassing example of the long term pursuit of collective effort which has outlasted the Soviet Union. There must be better ways, as yet untried.

The adage "if it's not broke, don't fix it" does not apply to this issue, despite such suggestions to your inquiry from other sources.

THE RATIONALE FOR GOVERNMENT INVOLVEMENT IN RURAL RESEARCH

This Association reluctantly supports a role for government in co-funding rural research and development, but not for the reasons offered in the March 10 Issues Paper.

We reject the idea that government funding should be provided in order to influence the research priorities undertaken by rural researchers who are also funded by agricultural businesses.

Despite a range of views about climate change within the PGA, we have no desire to compulsorily include climate change in the suite of considerations that should be given to rural research proposals. Nor do we feel obliged to fund the pursuit of government objectives in regard to managing natural resources, responding better to markets, or managing food security or biosecurity threats.

We are necessarily interested in such matters, raised in the March 10 Issues Paper, and we firmly believe these will be incorporated into the research programs of producers managing profitable viable businesses. However we are not interested in pursuing such matters because other people decide these must become our objectives if we are to continue to attract government funding.

If the government has a general role in rural research and development it is to support Australian scientific infrastructure, particularly the education of scientists. Matching funding should be applied to compulsory levies, if they exist, so that graduates can then be attracted to rural research because attractive careers exist.

There is no prospect of successful rural research programs, however funded, in the absence of scientists with a strong long term commitment to rural businesses. This is true of any industry.

Some Australian businesses are large enough to fund scientific education in their business area, and to then provide scientists with the opportunities and careers they require in exchange for the beneficial research work they will do.

Businesses of such scale do not exist in agriculture. Therefore, if a rural research levy exists, it should be supported by matching funding from government for that purpose, and not used to justify the imposition of government research objectives.

Government may also have a role in the pursuit of good corporate governance on behalf of levy payers, and on their own behalf as joint funders, because industry representatives are not immune to the pursuit of personal or vested interest.



Most suggestions for a government role in rural research, made in the March 10 Issues Paper, have been canvassed in the agricultural industry for many years, but are only attractive to those with a passion for complexity. It is the view of this Association that the role of government within the management of RDCs/IOCs should be confined to good governance.

In the early 2000s, AWI and AWB both proved that auditing is not sufficient to guarantee good governance. Indeed, international private industry examples in more recent times can only support the same conclusion. Shareholders are not automatically protected by traditional audit practices.

If the government has any specific role, at all, in the management of RDCs/IOCs, it should be confined to helping preserve good corporate governance, and should exist irrespective of matching funding as a protection for levy payers who are unprotected by the ability to sell their shares in a levy funded business.

This Association takes the view that most examples of poor corporate governance would be “tidied up” if the organisations in receipt of research levy funds are confined to research activities. Many temptations would be avoided by this sensible restriction.

Thereafter, a method to challenge Boards, or individual members/directors, on matters of good governance, needs to be available to levy payers. They do need special protection. Unlike other shareholders they do not have the ability to withdraw their considerable capital investment by selling their shareholding. In effect, they become captives of the levy process.

A procedure should be established by government to facilitate the investigation of grievances of levy payers concerned about poor corporate governance. This might involve a parliamentary committee, with quicker response time than a Senate Committee, or it might involve an ombudsman

When levies exist, this protection must accompany their establishment.

The government should also consider bonus tax deductibility as an alternative to co-funding for research and development.

Although many PGA members are acutely aware that tax deductions are only beneficial if a profit is made, and tax is paid, a 200% tax deduction for voluntary funding of rural research and development would, in the opinion of this Association, attract voluntary investment, and also generate more interest in the results of the research thus funded.

Depending on the profit/loss position of producers, this may even reduce the government contribution whilst maintaining grower contributions in a non-compulsory environment.

Financial analysis of this position is beyond the ability of the PGA, without access to confidential tax data, but the necessary inputs to such calculations would be available to government.

This approach may allow the government to extricate itself from their current unwieldy involvement, and be “government revenue neutral” at a carefully calculated level of tax deductibility.

A precedent exists in the 200% deductibility for on-farm water conservation. Rural research is not less important than water storage to the viable future of farming businesses.

A transition period, during which grower contributions would switch from compulsory levies to a voluntary contribution attracting a bonus tax deductibility, would be essential.



TO LEVY, OR NOT TO LEVY

Many people join State farming organisations because they believe that bonding together gives farmers a strength which is not available to them as individuals.

Whilst this can certainly be true, this basic predisposition of the membership often colours their reaction to supporting collective effort when alternatives, including doing nothing, are available.

The people of the alternative disposition are almost always defeated by the democratic process within these State farming organisations (SFOs).

This tendency, within those organisations, can then be exacerbated by the roles of industry leaders within the SFOs who can have a vested interest in the pursuit of a collective effort. They can even become part of the strategy of the levy funded organisation to “sell” their achievements to the producers funding the effort.

The Membership of the PGA has been retained, and increased, because of our efforts in opposition to this basic collective approach. The PGA members are very suspicious about levies.

This Association generally supports the voluntary pursuit of group objectives, managed by people within that context, and responsive to the group members (farmers) rather than vice versa.

Nonetheless, on the issue of rural research and development the majority of our membership currently support the concept of levies for the conduct of research and development, with the following caveats:

- the levy funds must be directed to an organisation, or organisations, with the specific and uncomplicated task of research and development;
- levies should cease to be deducted at the point of sale, and should be invoiced to the producers by government, and then re-directed to the levy funded body;
- the levies may attract matching funding, however that is not essential to PGA support for a levy;
- individual production levies should be initially set at 0.5 percent of gross proceeds, but may be increased to , but perpetually capped at, one percent with the support of at least 66% of levy payers in a non compulsory ballot;
- if matching funding is available, this funding must not be conditional upon government approval of the research and development agenda; and
- the government approval of a levy must be accompanied by a commitment to facilitate inquiries into grievances about the corporate governance within the levy funded organisation.



MANAGEMENT OF RURAL RESEARCH AND DEVELOPMENT

This Association has witnessed, for decades, the ineffective performance of levy funded and/or monopoly organisations servicing farmers and graziers. As a result, we are reluctant supporters of any levy.

However, in the case of rural research we see no alternative to compulsory levies that would not result in decades of lost opportunities.

We believe that Australian Wool Innovation is proof positive that privatisation is not the solution. AWI appears to be the basket case of such collective effort. Levy funded bodies will not be improved by changing the source of directors from ministerial appointment to industry election.

Nonetheless, ministerial appointment to RDC Boards presents other hazards. Principally, the Minister gets the blame when the going gets tough. This is hardly a scenario that promotes stable, enthusiastic and accountable behaviour on RDC Boards.

We believe the first step is to confine the activity of the levy funded body to research, to clarify and simplify their task.

The appointment of RDC Board members should then be based on skills relevant to that task. If the Board is relieved of the political fervour that surrounds the balancing of levy expenditure between research, promotion, marketing, biosecurity and the like, members/directors will be able to quietly contemplate the performance of the management, and/or the strategic or research alternatives presented to them. This will greatly enhance their performance on RDC Boards.

If an RDC Board adopts the hands-on task of making choices between individual research projects, then those skills must include scientific understanding. This can be challenging for many farmers assessing brand new concepts not aimed at obvious on-farm issues, and without a clear road littered with milestones for annual cost/benefit assessment, and the like.

Alternatively, if the Board adopts a strategic role, such as confining research to on-farm rather than post-farm issues, and delegating specific project support to management selected and held responsible for progress, then the skill set of Board members can be different. Such a Board would be dominated by farmers.

In either event, the PGA submits that the RDC Board members should be selected by a group of elected industry representatives who would normally be farmers, but may include people held in high esteem by farmers. This selection panel would need to be industry specific, one panel for each levy. The voting power of each levy payer should be determined by the level of payment in previous years.

Acceptance of such a model requires that specific levy funded bodies should manage their own research programmes, and not be consolidated into a single levy funded research body.

Some people will argue that the management of research for sheep meat and wool can be consolidated. It can also be argued that research into producing meat from cattle and sheep should also be managed together. However, combining the assessment of research into wool and beef production becomes less self-evident.



Similarly, combining beef cattle with dairy cattle has some logic. Inevitably, the argument to consolidate sheep meat and wool research can finally be logically extended to combining research into dairy and wool production, and balancing levy expenditure accordingly.

This is not a prospect likely to be attractive to either wool or dairy producers, or effectively managed by an RDC Board. Hence the PGA believes any production levy should be managed separately.

SUMMARY POSITION OF THE PGA

- Despite the recent history of non-achievement of rural research and development, this Association and its members remain firm supporters of the need for research work, and for the need for their own participation;
- Members are not united in regard to the method of that participation, but Association policy supports the idea of a compulsory levy for such purpose;
- The Association is prepared to accept government participation, such as co-funding, given various caveats:
- The first caveat is that the government must not use co-funding to manipulate the research priorities of RDCs, which must be absolutely focussed on improving the productivity of Australian farmers, as they choose;
- Second, as part of any legislation in support of levy collection, the government must accept responsibility to protect levy payers, trapped in the system, against bad governance, with appropriate powers of inquiry;
- Third, the RDCs should be confined to research activities;
- Fourth, the AWI model should be avoided, and RDCs should not be privatised;
- Fifth, the legislation should provide for production levy payers to participate in regular but infrequent elections of selection committees to subsequently appoint Boards to the various RDCs;
- The election of selection committee members provides ultimate producer control, and accountability, without requiring producers to dictate research priorities on a day to day basis.

The latter is vital to the pursuit of the important principle that “growers can control a research and development program without government, but not without scientists.”

AND FINALLY

In the event the above was implemented, the PGA can offer its ongoing support to limited compulsory production levies for the funding of rural research and development.



However, in the absence of major change to the current approach, this Association can anticipate the proliferation of waste and missed opportunity that has coloured the last three decades.

This Association cannot support any inconsequential change, or facelift. In the event of such an outcome, this Association believes that only a revolution, based on voluntary levies, offers any long term hope, despite significant short term disadvantage.

The Pastoralists & Graziers Association of WA (Inc)
25th June 2010



Western Graingrowers

Submission to the

Productivity Commission Inquiry

Into

Rural Research and Development
Corporations

(With specific attention to Grains R&D)

*Pastoral House
277-279 Great Eastern Highway
Belmont WA 6104
Phone: (08) 9479 4599
Facsimile: (08) 9277 7311
e-mail: pga@pgaofwa.org.au
Internet Site: www.pgaofwa.org.au*

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Introduction

The Pastoralists and Graziers Association of WA (Inc) (PGA) is a non-profit industry organisation established in 1907, which represents primary producers in both the pastoral and agricultural regions in Western Australia. This organisation has a history of taking on the status quo in order to deliver real benefits to producers. Examples include lobbying to end the single desk in wheat marketing, to abolish the wool reserve price scheme, and to eliminate the total and counter-productive control of the lamb marketing board. In each of these instances, evidence of vested interests advancing at the expense of producers abounded. We are proud to have fought those vested interests in the face of massive opposition.

Western Graingrowers, the grains committee of PGA, represents progressive Western Australian grain growers who believe in the benefits of competition and the reduction of government regulation within their industry. On average, our membership produces 30-40 percent of the Western Australian grain harvest per annum.

PGA and Western Graingrowers welcome the Productivity Commission's Inquiry into Rural Research and Development Corporations (RDCs). **This submission is made with specific attention to the Grains Research and Development Corporation (GRDC), as that is the RDC associated with this committee.**

Executive Summary

The GRDC's performance is not satisfactory, and in the PGA's view, will continue to deteriorate. Incentives and processes are concentrated on preserving the revenue flow from the compulsory levy, and too much attention is devoted to satisfying political objectives.

PGA's view is that growers should be able to exercise more individual choice in the allocation of research dollars. To that end, we make the following recommendations:

- 1. The core focus on productivity improvements must be re-established;**
- 2. GRDC should forgo Government matching funding;**
- 3. Under our recommendations, the PIERD Act (1989) would be redundant;**
- 4. Collection of levies should be changed such that invoices are directly issued to farmers rather than being withheld from payments;**
- 5. The mandate on GRDC spending should be tightened, so as to ensure a focus on productivity gains. Pre-breeding and National Variety Testing (NVT) are core activities supported by our membership;**
- 6. Spending of monies on specific commodity research should be in proportion to contributions by that commodity;**
- 7. The levy should be cut to 0.5%, which will yield enough funds to cover the tighter mandate;**
- 8. Farmers should be encouraged to directly invest into whatever R&D organisation or research project they wish, with a tax deduction on that investment of 200% (capped at 1% of gross grain revenue);**
- 9. GRDC should be corporatised, with shares granted in proportion to levies paid;**

- 10. The role of board should be clear and simple: oversight of the mandate;
and**
- 11. The goal of any ensuing reforms should not be consolidation of existing
research organisations, but rather the encouragement of competition,
which begets lower costs and higher outputs.**

Comment on Issues and Questions

General Support of Recommendations

Why is productivity growth in the grains industry slowing?

GRDC's Ground Cover magazine¹ reported last spring:

The Federal Government is to allocate almost \$2 million specifically to investigate why productivity growth in the grains sector is slowing (emphasis added) and what is impeding the uptake of new technologies and varieties by growers.

At the 2009 Australian Grains Industry Conference in Melbourne, the Minister for Agriculture, Fisheries and Forestry, Tony Burke, announced the \$1.9 million 'Harvesting Productivity' initiative to be undertaken by the GRDC and the Australian Bureau of Agricultural and Resource Economics (ABARE).

Mr Burke said the initiative was in response to the central role that productivity growth played in enabling grain growers to meet the challenges of a changing climate, fluctuating input and commodity prices, and rising global food demand.

He said grains productivity increases had slipped in comparison to other broadacre industries and research was needed to find out why. "Ten years ago, grains productivity growth outperformed industries such as sheep, beef and mixed enterprises," he said. "But now it has fallen, and while drought has certainly played a role, other factors remain unclear."

The Harvesting Productivity initiative will use national research, development and extension resources to identify all factors that affect productivity and use this knowledge to promote and shore-up sustained industry growth.

Mr Burke pointed to the productivity gains made possible by the introduction of no-till cropping as an example of the kind of innovation the Government wants to foster. Now the industry needs to find the next generation of technology to drive up productivity ... "the next no-till".

The GRDC's managing director, Peter Reading, said there was a need to understand obstacles to grower adoption of new and existing technology, especially developments such as hardier high-yielding grain varieties that were coming out of the national plant-breeding effort.

Referring also to lags and variation across the country in the adoption of no-till technology, Mr Reading emphasised the need to understand what drives uptake of new technology. "The adoption rate for no-till is currently at 60 per cent, while precision agriculture is at 20 per cent," he said. "Collectively, we

need to make sure that information about new technology gets to growers as it is needed and that obstacles to adoption are addressed.”

ABARE’s chief commodity analyst Dr Jammie Penm said the need to increase productivity growth was urgent if the grains industry was to retain its competitiveness. “At ABARE we are aiming to understand what drives productivity gains,” he said.

In analysing the literature surrounding this issue, including the above article, GRDC’s Environmental Plan², Annual Reports³, Productivity Commission-referenced studies on the benefits of rural R&D⁴, and others, it becomes clear that time and resources are being increasingly directed away from the core function of research and development for productivity gains. The scientific method has largely been abandoned, in part due to resources being allocated to satisfy political criteria and the excesses of bureaucracy and administration.

The prime example is climate change and the misguided effort to reduce human emission of carbon dioxide (CO₂). In the overwhelming majority of literature of GRDC (and, in fact, many RDCs), the government-mandated focus onto this issue is apparent (note GRDC’s Key Investment Priorities 2009-10⁵ as one example). When organisations are forced to invest resources into solving a non-problem, there are fewer resources available for pursuit of the core goal of increasing productivity.

Farmers have dealt with changing climates since human time began. When CO₂, which all farmers know to be vital in crop production, is described as the problem, is it any wonder that productivity gains have slowed?

The following summarises what our membership would like the Commission to consider.

1. The core focus on productivity improvements must be re-established

The intent of the establishment of pooled funding for rural research and development was to increase (agricultural) productivity, of which there are two components: input (producing the same amount with fewer input costs) and output (producing more using the same amount of inputs). Ostensibly, the Australian public at large benefited from such productivity gains, and therefore, Government contributed taxpayer dollars to R&D activities. ABARE’s chief commodity analyst Dr Jammie Penm said the need to increase productivity growth was urgent if the grains industry was to retain its competitiveness.⁶

Unfortunately, this core focus (improving productivity) has been lost by many RDCs, which have been sidetracked with more readily demonstrable activities such as marketing; supporting producer events; distributing self-serving propaganda via glossy print, DVDs, advertising, and in-person meetings; wining and dining board and committee members; meeting with bureaucrats and politicians to purportedly smooth market access; travel both within and outside of Australia for “research” activities; etc. One specific example is Partners in Grain’s Beef & Beer nights in WA, sponsored by GRDC (see Appendix #1).

Without productivity gains, regardless of how much money and effort is expended in these other areas, Australian farmers will not advance as generally hoped as a result of the payment of their levy dollars.

2. **GRDC should forgo Government matching funding; and**
3. **Under our recommendations, the PIERD Act (1989) would be redundant**

Our organisation is a strong advocate of allowing market forces to solve problems. For purposes of this submission, Western Graingrowers rely upon the Terence Kealey⁷ school of thought derived from Adam Smith:

Production → Technology Development → Profitability → New Technology →
Research → Science

This is to say, industry and an on-ground need to produce drives invention and innovation. That pre-existing technology (and the profitability that ensues) spawns new technology and more wealth, and these then lead to research and academic science. This is contrary to the current GRDC model which assumes that academic science develops new technology which is then adopted by the producer. Private enterprise will happily fund research and academic science, as evidenced by significant technological and scientific advances in Britain and the US prior to the late 19th century (before government funding of research was common), and even into modern day (some might say, despite significant taxpayer funding of research).⁸

In order to innovate and invent to produce more efficiently, producers must be free to change course instantaneously. At the level of production – that is, at the micro economic level, this responsiveness and flexibility is relatively easy. When governments endeavour to control that innovation and invention, they seldom (or never, depending on the definition of success) succeed because, by their very nature, they are slow to respond and quite inflexible. They have no driving motivation to change quickly. In years past, this might not have been as readily evident as in recent years, as the rate of technological advancement has dramatically increased.

Private funding of research will occur in the absence of government funding, but the very presence of government funding discourages this more efficient and applied research. Indeed, in the December 2009 ABARE and BRS Report for the R&D Council⁹, it is stated:

“Historical (1992-93 to 2006-07) ABS data on inflation-adjusted R&D expenditure shows a number of broad trends. Expenditure on agricultural R&D has increased slightly over the period 1992-93 to 2007-08. There has been a relative decline in effort by the state agencies, and to a lesser extent the Australian Government, which has been offset by increases from the higher education and business sectors.”
(Emphasis added.)

Some will say that there is a “market failure” in certain areas, and without taxpayers subsidising R&D in those areas, the activity would not be undertaken. But the GRDC, with its government matching funds, is actually a classic case of government failure.

If there exist so few participants in a sector, with so little profitability, such that it makes no sense for industry to develop something specific for that sector, then the market tells us that it should not be funded. If there existed enough potential value at the output end, the impetus for an individual, a company, or producers within that sector to invest up-front would exist. In the case of wheat, barley and Australia-specific pulse crops, producers see the potential for gains in output, and are willing to fund research and development to attain that gain. Their own limited funds, however, must be well invested in order to obtain value for money.

Another way of viewing this (assuming compulsory levies did not exist) is that if output gains are possible, private commercial entities will pursue them, and farmers will be willing to purchase seed, pay end point royalties, purchase chemicals, etc., to reward the commercial investment.

In addition to this, government involvement naturally politicises the administration and decision-making processes (see examples in discussions below). The quest for productivity gains should be free of all political processes.

4. Collection of levies should be changed such that invoices are directly issued to farmers rather than being withheld from payments.

One of the impediments to the effective and efficient functioning of RDCs is lack of active involvement of producers. There are various reasons for this, the primary one being that farmers are so busy producing, they do not have time for management of GRDC. Another key reason, however, is that farmers do not deem the levy payment to be their own. It's important that the cost of the levy be transparent to the grower, and we therefore believe the grower should pay the levy directly.

- 5. The mandate on GRDC spending should be tightened, so as to ensure a focus on productivity gains. Pre-breeding and National Variety Testing (NVT) are core activities supported by our membership.**
- 6. Spending of monies on specific commodity research should be in proportion to contributions by that commodity**
- 7. The levy should be cut to 0.5%, which will yield enough funds to cover the tighter mandate**
- 8. Farmers should be encouraged to directly invest into whatever R&D organisation or research project they wish, with a tax deduction on that investment of 200% (capped at 1% of gross grain revenue).**

Many within our organisation are so disillusioned and disenfranchised with the RDCs that they would prefer an end to compulsory levies. The PGA has a standing policy that we will not support any new levies, as it is deemed the current ones deliver little benefit. The first preference of our organisation is to **abolish the compulsory levy** and allow farmers to directly invest in whatever research they deem necessary and relevant.

However, as abolishing compulsory levies is likely farther off in the future, a re-focus of levy dollars is vital in the short- to medium-term.

In discussions with commercial plant breeders, there seems to be a need for better spending on the fundamental, non-glamorous work of pre-breeding. Coupled with producers supporting the national variety testing (NVT) information, we suggest that the mandate be trimmed to these core activities. Based on information provided by GRDC, some portion of \$40 million in 2007-08¹⁰ was spent on pre-breeding activities, and about \$5 million on NVT. Industry levies totalled \$89.207 million last year, and interest income and royalties totalled over \$12 million. Based on all these figures, the levy could be cut in half and still achieve real value in the core areas.

With the 0.49% of gross revenue that they retain control over, farmers could directly invest in whatever R&D program they deem appropriate, and receive a 200% tax deduction for that investment in lieu of the direct contribution to GRDC.

There are certain commodities that attract the attention of large-scale multi-nationals' investment (corn, soybeans, and canola), to the general exclusion of other commodities such as wheat, barley and Australia-specific pulses. In this vein, our membership recognises a benefit to pooling dollars for country- and commodity-specific research and development, but only if true gains in productivity are strived for and achieved.

In order to get "bang for the buck" we must target our spending. If monies are spread too thinly (either across too many projects or across too many geographical areas), we do not obtain value from our investment.

In targeting this spending, additional benefits could be gleaned by targeting spending on commodity research in proportion to the levy income from each commodity.

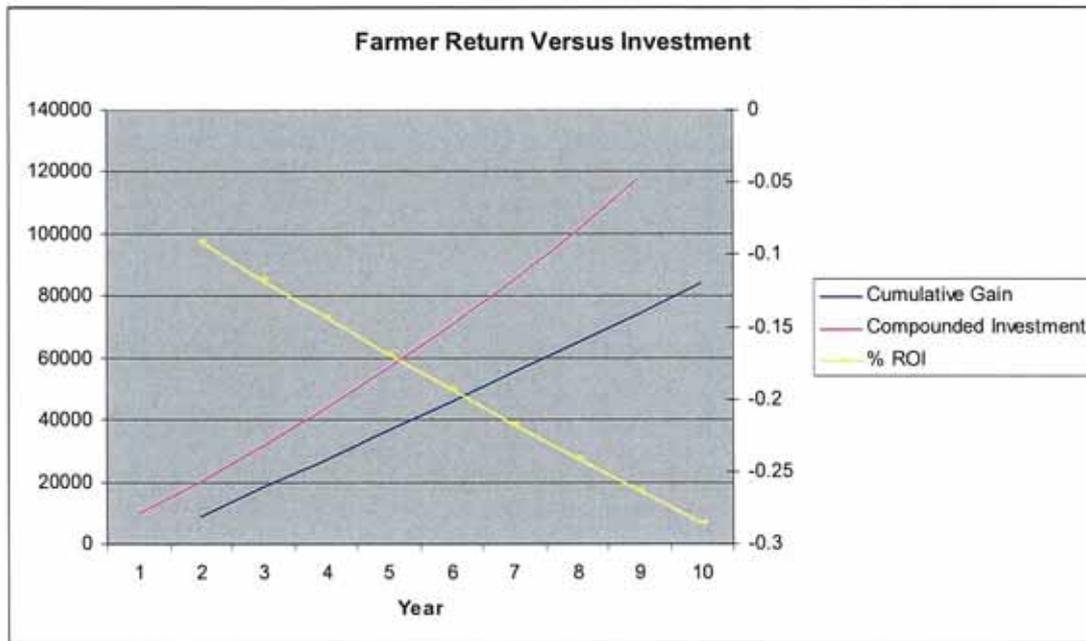
9. GRDC should be corporatised, with shares granted in proportion to levies paid

10. The role of the board should be clear and simple: oversight of the mandate

Farmers are not getting value from their investment into GRDC. Farmers have been paying .99% of their gross revenue in R&D levies, and receiving a .9% benefit since 1994¹¹. On top of the producers' money, taxpayers contribute 25-40 percent of total GRDC income in the form of matching funding. On top of this, there is significant non-GRDC spending in R&D (with the remainder being spent by CSIRO, State and Federal Departments, Cooperative Research Centres (CRCs), catchment groups, producer groups, commercial entities, etc.).

Appendix Two (attached) is a spreadsheet demonstrating that, even with productivity gains compounded annually, return on producers' investment is negative. This example considers an individual farmer's investment into GRDC R&D.

Graph #1



If he begins in Year 1 with production of 4,000 tonnes of grain, at a price of \$250 per tonne, his sales are \$1 million. He pays an R&D levy of \$9,900. Assuming an annual compounded productivity gain of 0.9%, an interest rate of 6%, and a one-year lag of productivity gain relative to investment, the farmer will have invested \$117,538 in years 1-9 for gains in years 2-10 of \$83,978. This is a negative return on investment of 28.55%. This example does not consider the farmer's tax money spent as Commonwealth matching funding. Nor does the example account for the fact that some percentage of the productivity gain is due to factors separate from levy spending, as noted at the bottom of the spreadsheet.

When the data in Appendix Three (attached) is considered, it becomes readily apparent that GRDC's total investment in R&D is yielding unsatisfactory returns, even assuming that 100% of the productivity gain is due to their own investment. (As already noted, tying the productivity gain to RDCs or public money is dubious in and of itself, as many advances (i.e., no-till farming, chemical and fertiliser advances, and precision agriculture) have come from private enterprise as opposed to RDCs or other government-funded research institutions.)

In this example (which assumes a starting national annual crop of 30 million tonnes and a price of \$250/tonne), GRDC nominally invests over \$1 billion in years 1-9 for a gain of just under \$630 million in years 2-10. Applying a 6% opportunity cost to that investment, total spending is \$1.36 billion. With a 0.9% productivity gain, the return on investment is a negative 53.56%.

At 1% of gross revenue, the levy tax on producers has a significant impact on net profitability (Earnings Before Interest and Tax, or EBIT). According to information compiled by a leading agricultural consultancy in Western Australia¹², the impact of the levy on net profit averages about 5% on farms with an average size of 4,000 hectares. The smaller the farm, the larger the negative impact on EBIT.

Last harvest, for many farmers, the levy payment was the difference between profit and loss.¹³ This year, many have struggled to get financing to carry on for another crop year. Their levies were collected and GRDC received its money nonetheless.

There will be many submissions to this inquiry encouraging status quo from organisations and researchers who benefit from levy funding and government matching funds. The PGA has never received GRDC funding, and commissioners should be aware of the conflict of interest that many (including most State Farming Organisations and many Producer Groups) individuals and organisations hold because they benefit from monies flowing from GRDC.

These organisations will provide documents that demonstrate an incredible return on investment in R&D. One example is the December 2008 “Measuring economic, environmental and social returns from Rural Research and Development Corporations’ investment” report put out by the Council of Rural Research and Development Corporations’ Chairs (CRRDCC)¹⁴, in which returns on investment of 11:1 are presented without any data to support them. We wonder what the return on investment would have been pre-GRDC days when productivity gains were 4% compounded.

But the system was established to improve productivity of farmers. This has not been happening due to a variety of reasons, including but not limited to politicisation of the entire process (from appointments to the boards, councils and panels, to the funding of research proposals themselves), lack of direct effective oversight by producers that contribute most of the levies and who understand corporate governance and accountability issues, GRDC’s corporate governance equating to creating confusing webs of funding which make it difficult to oversee simply, attempting to spread the money around, lack of proportional input from the people who pay the levies, and lack of election oversight.

Oversight of levy dollars spending should be fundamentally revamped to allow the people that contribute the most to have the most say. While this is not, in itself, a solution, it is one discipline that will aid in re-establishing commercial priorities and investment.

Restoring representational governance, as opposed to the Minister appointing skills-based boards, will at least give farmers the opportunity to be involved in their organisation. At this point in time, that opportunity does not exist (other than in the “consultative” days organised by the appointed bodies).

Simplifying the role of the board to overseeing a limited charter will better align the interests of the levy payers with the GRDC.

Finally, independent oversight of elections is critical in any successful democracy. The people who have a stake in the outcome of the election must not be the people counting votes.

11. The goal of any ensuing reforms should not be consolidation of existing research organisations, but rather the encouragement of competition, which begets lower costs and higher outputs.



Many people will argue that, in order to efficiently (by avoiding duplication) use our money, there should be no competition in research. Real world experience shows that competition itself is a discovery process. Competition in research is just as critical to improvement as it is in any other industry.

Rationale for Commonwealth Government investment in rural R&D

The rationale for government investment into research is varied and oft-quoted. It is claimed necessary as a “moral good,” for food security, to repair “market failure,” to underpin applied science and technology, etc. As we see in the instance of GRDC, and as demonstrated by Terence Kealey and other empirical studies, each one of these rationales, under honest scrutiny, is shown to be of dubious value.

Attempts to Placate All Constituents

As long as the Government contributes taxpayer money, the R&D process will be politicised, and decisions will be made based on the wrong criteria. A man cannot serve two masters.

“The GRDC's mission is to invest in research and development for the greatest benefit to its stakeholders - graingrowers and the Australian Government.”¹⁵

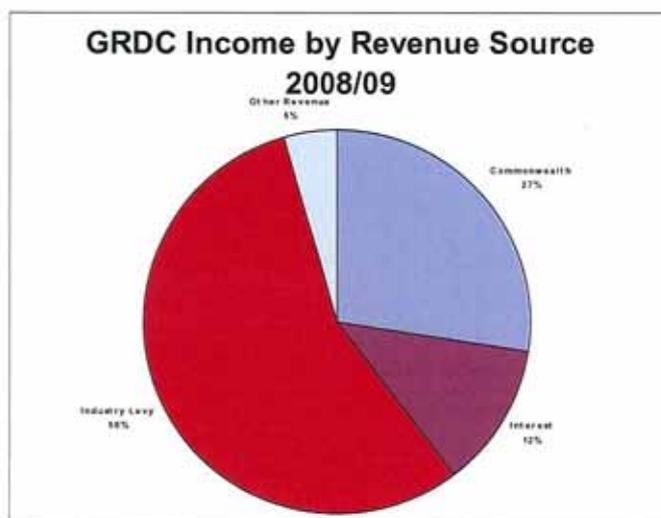
This mission statement of the GRDC is fundamentally flawed. The Australian Government is supposed to represent all of society, while grain growers are only approximately 0.78% of the total population¹⁶. This poses a significant problem for GRDC, who must answer to a “stakeholder” (The Australian Government) who must answer to individuals and groups who not only have nothing to do with grain production, but in many cases, are philosophically opposed to private property ownership and technology advances, and are a larger proportion of the population than grain growers are.

Especially in today’s world of advanced communication, ever-increasing rates of technological advancement, and enhanced distribution capabilities, government is ill placed to provide the timely direction necessary to lead research and development. If government provides funding for R&D, it follows that government must be involved in collaboration, oversight, and direction. This leads to decision-making based on politics and favouritism rather than pure science and commodity-based productivity gains. It also slows down the responsiveness that must exist in order to research and develop the right ideas and products.

When Government funding is involved, the fundamental process becomes political...if not immediately, eventually. Rather than coming up with a good project and competing for funding, researchers/developers feel out what is politically popular, and pitch projects that satisfy that bias. Individuals and groups have told us that some of their best projects get crossed off their list in seeking GRDC funding, because they do not meet the (government-influenced) pre-determined focus.

Terence Kealey states, “It is an inevitable but sad consequence of the nationalisation of any activity that it is politicised, and therefore coarsens, the very people who originally embraced that activity from nobility or idealism.”¹⁷

Effectively, 25-40 percent of total GRDC funding comes from the Commonwealth matching funds. In return for this money, our industry, under the PIERD Act, gives control to the Federal Minister for Agriculture and to non-producer groups that are part of the Australian population, who are fundamentally opposed to progressive agriculture, and who are actively involved in influencing policy at all levels of government.



Commonwealth matching funds in 2008-09 contributed about 27% of the total GRDC income. The amount of control that producers concede to non-producers in exchange for that income causes the 56% of income in levy dollars (plus the interest income on cash reserves) to be spent on activities other than core productivity gain pursuits.

Discussion of the “empirical” evidence

In the May-June 2010 Groundcover Issue 86, ABARE chief economist, Dr. Terry Sheales was quoted, “If we continue down the track of reducing publicly funded RD&E then productivity will go down,”¹⁸ Dr. Sheales has failed to provide any scientifically rigorous evidence for this statement. Box 2 of the Commission’s Issues Paper provides examples of empirical works that declare there are significant returns to investment in rural R&D. While it is undeniable that investment into research and development yields significant returns, in practice, attributing productivity gains to any specific initiative is not easily done.

In the studies referenced, it appears that benefit to cost analysis is based on modeling that cannot be reconciled with real-world observations.

While the methodology of which projects would be assessed is discussed, the econometric data beneath the assessments is not revealed. It appears that there is a disconnect from reality (a 0.9% productivity gain since 1994) and modeling (which shows, in the CRRDCC (2009 and 2010) reports that there is a 11:1 and 10.75:1 benefit to cost ratio taken over a 25 year period. If these econometric assessments of return on investment are true, then why is the Federal Government spending \$2 million on the Harvesting Productivity initiative?

Technological Advances – Results of Public R&D?

The Productivity Commission states¹⁹ in their *Trends in Australian Agriculture* (2005):

Some examples of technological advances that have contributed to productivity improvements in the agriculture sector include:

- *the development of more sophisticated farm machinery and equipment. For example, the development of mechanical harvesting of wine grapes allowed broadacre style harvesting, pruning and spraying of vines yielding significant reductions in the cost of harvesting grapes. Precision agriculture has improved the accuracy of machinery and equipment, and farmers' understanding of their soil. This has enabled farmers to better tailor water, fertiliser, herbicide and pesticide treatments to their production requirements, often reducing the quantities of inputs required and having positive environmental impacts;*
- *the development of improved herbicides, fertilisers and other chemicals that have enhanced yields (either directly or indirectly through the control of pests and disease); and*
- *genetic modification involving the manipulation of the genetic structure of living organisms (more directly than through conventional plant and animal breeding) has created opportunities for raising the productive potential of plants and animals by, for example, enhancing their resilience. One example is the commercial release of an insect resistant cotton (Ingard) in Australia in 1996.*

Technological advances, such as precision agriculture and biotechnology, (including genetic modification), also hold the potential for further improvements in agricultural productivity.

One of the explanations for the superior productivity performance of cropping industries (see section 6.5) relates to the significant changes that have occurred in cropping technology over the last few decades. Examples include crop varieties with improved resistance to disease, more effective use of as well as improvements to fertilisers and pesticides and the adoption of minimum till practices.

Tying these specific advances to government (as opposed to private) funding of research is tenuous. In fact, the linear model attributed to Francis Bacon (1561-1626) of academic science driving new technology driving economic growth, has been shown to be largely untrue.²⁰ Some studies of US industry show that generally, about 10% of new technology emerges from academic research. Indeed, while Edwin Mansfield²¹ concluded that “about 11% of new products and 9% of new processes could not have been developed, without substantial delay, in the absence of recent academic research,” according to Kealey, “they accounted for only 3 percent of sales and 1 percent of the savings that industry made through innovation.” So conversely, using Mansfield’s own study, “90 percent of industrial innovation and well over 95 percent of industry’s profits through innovation, arise in-house from the industrial development of pre-existing technology.”

A British study found that "although scientific discoveries occasionally lead to new technology, this is rare²²."

Certainly modelling, while potentially helpful in attempting to prioritise spending, in the absence of incorporating results from actual observations, is not a valid way to assess whether public money should be spent on research and development.

The Climate Change Example of Politicisation of the R&D Process

Improving productivity improves our environment, our sustainability, and our ability to better care for natural resources. The Commission's own report of 2005 states,

"Productivity growth means that resources — such as labour, capital and land — are being used more effectively and efficiently. Increased output and lower costs means that with more income per head of population, Australians can enjoy a higher standard of living. It can also translate into lower food prices for consumers.

Productivity growth in the agricultural sector can also be beneficial for the environment — less land, water and chemicals to produce the same amount of output can mean reduced environmental problems associated with the use of such inputs."²³

CO₂ is an odourless, colourless, naturally-occurring gas essential for life on Earth. Farmers love carbon dioxide. In fact, many glasshouse operators add CO₂ as a matter of course, as it is a "fertiliser" that enhances growth and plant health.

As stated in the Executive Summary:

In the overwhelming majority of literature of GRDC ... the government-mandated focus onto this issue is apparent ... When organisations are forced to invest resources into solving a non-problem, there are fewer resources available for pursuit of the core goal of increasing productivity.

When CO₂, which all farmers understand to be key to productivity, is described as the problem, is it any wonder that productivity gains have slowed?

In the GRDC Western Panel Industry Consultation Forum held in Perth in March of this year, climate change was not once discussed as an issue over the course of the full two days of the forum. This was pointed out by a producer at the end of the forum, but it was not noted in the Outcomes Report²⁴. At the same time, GRDC is investing levy dollars into significant climate change research (reportedly \$16 million last year), including²⁵

1. *Travel Award – to review climate change R&D capacity and direction in the Australian grain industry;*
2. *Contribution to Primary Industries climate change strategy;*
3. *Assessment of Greenhouse Gas Emissions in cereal – legume cropping systems in southern Australia;*
4. *Indirect greenhouse gas emissions from wheat-sheep farming systems;*

5. *Measurement of paddock-based greenhouse gas emissions from wheat production to improve life cycle assessment of wheat-products Department of Agriculture, Fisheries and Forestry Sustainable Agriculture Project Guiding growers to more profitable and sustainable cropping systems in the western districts of the northern grain belt;*
6. *Several research grants to CSIRO Sustainable Ecosystems; and*
7. *Conference Sponsorship – 2008 West Australian Natural Resource Management Conference – Blackwood Basin Group .*

As outlined in Australian Grain's Grain Yearbook 2009,²⁶ GRDC's key investment priorities for 2009–10 include:

- Climate change – seeking to further understand impacts in order to minimise risk and maximise opportunities, including leading investment in soil carbon sequestration, management of nitrous oxide emissions and adaptation of crops to climate change.
- Greenhouse gas emissions – further measurement of paddock- based greenhouse gas emissions from grain production systems, to improve life-cycle analyses for a range of crops and environments and help enable better targeting of greenhouse gas mitigation practices.
- Collaboration with other Research & Development Corporations (RDCs) – continue to develop through a range of co-investment, coordination and communication activities aimed at increasing the efficiency and effectiveness of R&D investments. We are developing a new collaboration with the Cotton RDC addressing productivity and climate change preparedness in cotton and grain farming systems.
- Biosecurity – collaborative project involving the CRC for National Plant Biosecurity and the Australian Quarantine and Inspection Service, to examine the extent to which plant pathogens might enter Australia via passengers returning from overseas.
- Wheat classification – supporting the ongoing classification of new wheat varieties.
- Nutrient management – developing, demonstrating and evaluating new ways to ensure full nutrient availability for crops in above-average seasons while minimising the risks associated with early fertiliser application in poor years.
- Extension opportunities and training – implementation of the GRDC Extension Plan; investment in training initiatives on three key issues – precision agriculture, onfarm grain storage and spray drift management.
- Barley breeding – developing a productive, profitable and sustainable Australian barley industry supported by the release of commercially successful, market-targeted, elite cultivars of malting and feed barley.
- Development of enhanced germplasm – establishing national facilities for the phenotyping of complex water productivity traits in winter cereals.
- Lupin breeding – supporting the delivery of genetically modified herbicide-tolerant lupins that will diversify and increase the sustainability of farming systems while contributing to the revival of the lupin industry.
- New food products – identify and develop opportunities for partnering with companies to bring several new grain food products to market including the high-amylose wheat joint venture; the coeliac-friendly barley project; and, Go Grains Health and Nutrition Ltd.

- New feed products – further develop and commercialise near-infrared (NIR) technology; improve the yield and digestibility of sorghum; examine the potential for wheat and barley lines with novel carbohydrate compositions to increase the digestibility of grains and reduce methane gas production in cattle.
- International collaboration – supporting valuable international alliances and investments, such as a contractual agreement and investments with the International Maize and Wheat Improvement Center (CIMMYT) in Mexico, the Global Crop Diversity Trust and the Australian Centre for International Agricultural Research.
- Industry and research capacity building – building skills, training and education in agriculture. This will include investment in the Primary Industry Centre for Science

Levy dollars are being invested into programs that actively place primacy of importance upon climate change catch phrases such as natural resource management (NRM), sustainability, biodiversity, greenhouse gas emissions, and carbon sequestration.²⁷

The climate change movement's focus -- of the United Nations' Intergovernmental Panel on Climate Change (IPCC), the Australian Government's Department of Climate Change, the Department of Agriculture Fisheries and Forestry (DAFF), the current Government's Carbon Pollution Reduction Scheme, many research organisations around the world, and most federal departments -- is the need to reduce emissions of carbon dioxide (CO₂), which is defined as a pollutant.

The political declaration that climate change is the greatest moral challenge of our time, combined with an act of legislation such as the Primary Industries and Energy Research and Development (PIERD) Act (1989), ensures that, in chasing money that makes up 25 to 40% of GRDC's total spending, our own levy dollars are being misspent.

The only justification for any spending on projects that place emphasis on any of the in-vogue climate change projects is to acquiesce to the Government's political prioritisation of the issue. This is political wrangling rather than investment of producer levy dollars into increasing productivity.

Prioritisation of Government Funding

At a fundamental level, if economic gains are not enough to pay for research, then our money is better spent on something else. Farmers are willing to pay for consulting services, for seed on which end point royalties are collected, for new chemicals and fertilisers, for direct investment into research, etc., when real benefit is delivered.

If the field of people benefiting from specific R&D has decreased to such a point, or if the profitability within that field has deteriorated to such a point as to never be able to recover the R&D investment (through royalties, additional tax revenue from the increased production, consulting fees, etc.), then taxpayer money should not be spent in an increasingly futile endeavour.

When taxpayer money is prioritised for spending, it must be put to the highest-value use first. As a society, with our limited pool of funds, we must prioritize every bit of spending.

Another consideration in the government funding realm is the unfortunate side effect of researchers working for industry being denigrated for doing so. Once again going back to the climate change issue: Geologists that are outstanding in their field have likely worked for industry. In the debate on climate change, input from these professionals has been disregarded due to their connection with "big oil." It is implied that scientists that work outside of industry are "pure" and without bias.

But the examples we have in Climategate and the numerous other "gates" of the outcome being pre-determined by governments and the UN, and only research that commits to that outcome being funded, proves that this is not necessarily true. If an entity is interested in truth, it should seek out the most experienced person for information. If that person has spent his life studying soil cores in his work for oil exploration companies, it would be irresponsible to exclude him from the list of experts because he was paid by private enterprise rather than government. And yet, this is exactly what happened in climate change "research." This is a natural and highly unfortunate outcome of Government funding of R&D.

It's bad enough wasting taxpayer money on research designed to be politically appealing, but it's an absolute tragedy and injustice to forcibly take 1% of every individual farmer's sales and wasting it the way it has been.

The PIERD Act (1989)

The Primary Industries and Energy Research and Development Act 1989 (PIERD Act) was established in a way such that levy dollars would always be made to serve the Government's emphasis on research and development. The Act gives full and unfettered power to the Federal Minister for Agriculture, and the requirements for skills-based appointments allow for significant input from non-producers:²⁸

- (1) *A Selection Committee must not nominate a person for appointment to an R&D Corporation or an R&D Council unless the person appears to the Selection Committee to be suitably qualified for appointment because of expertise in one or more of the following fields:*
 - (a) *commodity production;*
 - (b) *commodity processing;*
 - (c) *commodity marketing;*
 - (d) *conservation of natural resources;*
 - (e) *management of natural resources;*
 - (f) *science;*
 - (g) *technology and technology transfer;*
 - (h) *environmental and ecological matters;*
 - (j) *economics;*
 - (k) *administration of research and development;*
 - (m) *finance;*
 - (n) *business management;*
 - (o) *sociology;*
 - (p) *public administration.*

The objectives of the Act also seem to at least equate (if not preference) the government as stakeholder over the levy payers.

3 Objects

The objects of this Act are to make provision for the funding and administration of research and development relating to primary industries with a view to:

(a) increasing the economic, environmental and social benefits to members of primary industries and to the community in general by improving the production, processing, storage, transport or marketing of the products of primary industries; and

(b) achieving the sustainable use and sustainable management of natural resources; and

(c) making more effective use of the resources and skills of the community in general and the scientific community in particular; and

(d) improving accountability for expenditure upon research and development activities in relation to primary industries.

Effectiveness of current RDC Model in providing competitiveness and productivity

Quite simply, the current structure of GRDC is not working. We have not seen productivity growth sufficient to offset investment, GRDC is expending funds on non-core activities, there is a confusing web of spending which makes oversight difficult, commodity-specific investment is out of balance, and the entire process of administration, oversight and spending is politicised.

Productivity Growth

Australia's largest graingrower, Ron Greentree²⁹, of Mungindi, NSW, has stated that he is still using varieties of wheat from 20 and 30 years ago. This is not due to lack of information, or lack of willingness to engage in new technology, but due to the lack of viable alternatives.

The GRDC's managing director, Peter Reading, said there was a need to understand obstacles to grower adoption of new and existing technology, especially developments such as hardier high-yielding grain varieties that were coming out of the national plant-breeding effort.³⁰

If hardier, high-yielding grain varieties that meet quality specs are available, farmers will use them. Farmers are astute, forward-thinking individuals, many of whom hire professional consultants to advise on new varieties and available technologies. Much money has been spent on extension through crop updates, consultative days, glossy publications, DVD development, etc. So the lack of uptake of a new variety is not from a lack of awareness. It's more likely due to a lack of the new variety delivering other qualities farmers deem more important from a profit perspective.

In their 2008 report to the Minister for Agriculture, Fisheries and Food, the Wheat Industry Expert Group quoted a productivity growth rate of 0.9 percent annually for

the period between 1994 and 2006. This severe slowdown is likely due to levy dollars being spread too thin, and being taken away from true research and development in the area of plant breeding.

Non-Core Spending

Serious problems exist in the fact that GRDC has gone away from the all-important focus of improving productivity, which is largely delivered by advances in plant breeding. Money is spread too thin across too many categories, such that variety development is small in the current scheme of things.

Marketing and extension activities are better performed by private providers. A serious re-focus on plant breeding (drought tolerant, salt tolerant, frost tolerant, for example) would ensure that producers get the most out of each levy dollar.

Wheat variety classification is a role that is best provided by industry in response to market demand. The fact that GRDC includes the \$400,000 allocated to project BRI00042 in the “Wheat and Barley Breeding” category indicates that even fewer dollars than stated are actually going into true breeding research. GRDC should specialise in pre-farmgate research, and wheat variety classification is a post-farmgate function. This is extending their role beyond their proven management capacity.

The amount of travel and total spending included in the Communication and Capacity Building category, at \$6.721 million³¹, seems excessive. Capacity building is unnecessary. Market signals are the most effective and efficient way of inducing an individual into any specific industry. Spending money to increase the number of people in research, if the market does not demand research, only leads to low paid researchers and general dissatisfaction in careers.

GRDC Accountability

Many farmers conduct their own research, either independently, or in concert with other farmers in their area through a group. Successful advances in productivity are most likely to occur if those farmers were allowed to keep their own money, to directly invest in whatever research they deem appropriate. A tax incentive could be given (say, 200% deductibility for R&D capped at 1% of gross revenue) to encourage such investment, should some be dubious about producers’ interest in advancement.

The first preference is for the compulsory levy to be abolished.

As long as the compulsory levy exists, there must be accountability in place; the people who are deciding how our money is spent must be working for the people who are contributing the funds, and that line of accountability must be re-established. While current structure participants will tell you this is already being done, most successful producers would not agree.

For example, GRDC conducted consultative days that tick the box of consulting with farmers, but the entire structure was pre-determined, including the researchers giving presentations on their projects. The number of active producers in the room were relatively few, and everyone voted on priorities, when it should have been producers only. Even the definition of producers is a bit of a tough one. A man farming 10,000



hectares got the same input as a man farming 100 hectares as a panel rep not actively farming. As addressed above, a fundamental flaw in the structure of the RRDCs is that Government contributes money, and this invariably takes the focus away from projects that are beneficial to the main levy payers and onto politically-expedient ventures.

There exist other concerns, such as the fact that levy dollars are used to put on “dog and pony shows” to convince producers that GRDC is delivering results. Significant money has been spent in hiring economic consultants to write reports concluding (based on modelling) that returns on R&D investment dollars are startlingly large. In GRDC’s Annual Report 2008-09³², under the category heading “Enhanced Management” there are three projects totalling \$183,000 that are internal impact assessment-related.

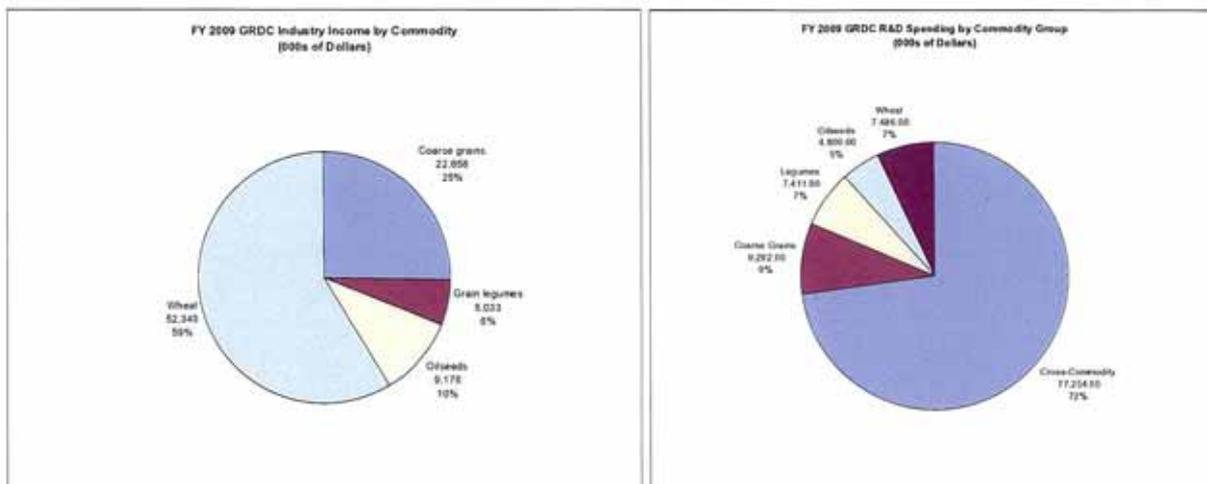
“Expert advice for the economic and strategic development of the Australian grains industry” garnered \$440,000. While GRDC spent \$100,000 on increasing informed debate and decision making about gene technology, our members still spent significant amounts of their own time and money lobbying for freedom in farming through the allowance of GM farming in this state.

Ground Cover magazine and TV cost over \$1.4 million last year alone (although \$227,000 of “Groundcover advertising income” is listed in Note 3 in the financials, along with \$99,000 of “publications revenue”). This use of levy dollars to self-promote would be unnecessary if the levies were decreased and the mandate strictly tightened.

There were 49 employees of GRDC as of June 30 2009. The average pay package for these employees is \$124,571.³³ Executive remuneration³⁴ for 12 senior executives totalled \$2,091,235, and Director remuneration³⁵ totalled \$842,107, with one (presumably the Executive Director) receiving between \$570,000 and \$584,999. When farmers in our state have had marginal returns for the last decade, the amount of prolific spending in all areas seems irresponsible at best, especially given the fact that productivity gains are not covering the levy investment or deteriorating terms of trade.

Crop Allocation of GRDC Research Dollars

In GRDC’s Annual Report the following information is provided:

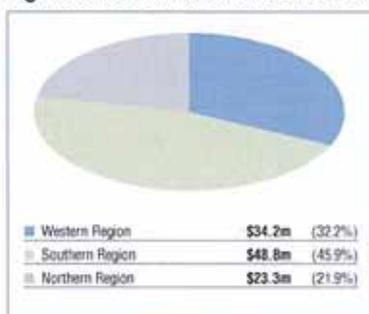


While wheat levies contribute almost 59% of Industry Levy Revenue, only 7% of GRDC R&D spending is on wheat-specific research. Surely it would be advantageous to focus more research onto the commodity that is the bread and butter of Australian grain farmers.

There have been complaints by producers in Western Australia that levy dollars research is East-centric; the numbers bear this out, seeing that WA is the largest wheat producer, and receives only a fraction of funding spent on wheat research.

A re-alignment of R&D spending to be proportional to the crops from which levy dollars are generated will go a long way toward restoring farmers' productivity, and their faith in their own industry's R&D body. At the same time, it would naturally remedy (at least in part) the problem of specific geographical areas not receiving their share of R&D funding.

Figure 5: R&D investment across the GRDC's three regions in 2008–09



Politicisation

The PIERD Act establishes the fertile ground for politics to dominate the priorities and activities of any RDC established under its auspices. The Minister for Agriculture is granted the power under the Act to appoint a chairman of a selection committee. The representative organisation, in this case Grains Council Australia (GCA) then nominates members to the selection committee, which is then charged with putting forward one name for each open position on the Board of Directors of the Corporation. The Chairman of the Board is directly appointed by the Minister, and based on the nominations from the Selection Committee, the Minister also appoints the remainder of the board. The concept of oversight given to an appointed body is counter to the democratic principles upon which Australia is founded.

GCA is a political organisation with membership comprised of state farming organisations (SFOs). PGA was once an associate member of GCA. During the debate on the single desk, GCA wrote to PGA, indicating that if PGA did not support their position for maintaining the single desk under a privatised AWB, we could not participate in discussions over the establishment of a privatised AWB. PGA has not been involved with GCA since.

Many individual farmers have become disenchanted with their peak industry organisations, and nowhere has this been more evident than in the case of state-based organisations. The demise of SFOs has been apparent in the demise of GCA, which is scheduled to cease operating on 30 June this year. The fact that GCA had the power to control the selection committee ensured that they also controlled the makeup of the board of GRDC.

The inherent conflict of interest was in the fact that GRDC transferred a significant amount of money to GCA. How could the system function properly when the people responsible for oversight of GRDC were taking money from GRDC? How could the appointments of directors to GRDC be independent when future income was contingent upon GRDC continuing to fund GCA?

Impediments to the efficient and effective functioning of RRDCs

Government

The biggest impediment to the efficient and effective functioning of RRDCs is government politicisation of the process and resources being spent on constituency buying, lobbying for self-preservation, erecting walls to protect themselves from levy payers and trivial research projects that hardly fit the definition of scientific projects.

Because Government, through the PIERD Act, has the power to influence the operations of RDCs, and has exercised that power, scientists have pursued non-problems in capitulating to public perception rather than pursuing research that truly leads to productivity gains. It is vitally important that people understand that productivity gains in agriculture lead to improved use of resources, and that, in turn, is good for the environment. It seems that there is a general move away from pursuing productivity gains, in exchange for environment-focussed research. This takes us away from what should be our core business in research and development corporations.

Farmers

The second largest impediment is two-fold: Growers are so busy producing, that they do not have time to be actively involved in setting agendas and deciding how levy dollars are to be spent. But even if they could find the time, producers feel disconnected from their levy dollars, and therefore powerless to affect true change.

Farmers are the ones best placed to know what technology they require to take their own productivity up to the next level. Direct farmer involvement is key to maintaining efficiency and effectiveness of research and development initiatives. The



natural evolution of successful industries leads to these functions being out-sourced, and the person providing that function then, over time, becomes disconnected from every-day production, and the possibilities and problems at the coal face.

Partly because payments to farmers are made net of levies, there is a fundamental lack of “ownership” of the GRDC, and therefore ambivalence toward it. This is a fundamental problem with compulsory levies, and could be remedied in some part by farmers directly paying their levy.

Bureaucratisation & Politicisation

Human nature itself sometimes leads to impediments to efficiency and effectiveness. Once a position is established within an organisation, human nature is to expand that position. Sometimes that expansion is well-placed and in line with the outcome definitions. But all too often, that expansion is self-created and in opposition to the defined goal. Effective oversight is vital in avoiding this. That oversight has been lacking, and the establishment of GCA as it relates to GRDC (GCA received substantial funds from GRDC, but were expected to oversee GRDC activities) lent itself to the problem.

GRDC is not driven by profitability. By definition, it can only be run bureaucratically, which we acknowledge. The concern is the politicisation that is integrated into the structure of the organisation itself.

GRDC can currently be compared to AWB under the Single Desk. There is a significant amount of time and money spent on justifying existence and influencing constituents. It takes a very strong person (with a significant amount of time!) to stand up against a board and administrators while being treated to 5-star accommodation, expensive meals, travel perks.

Free Rider Concerns

As long as the levy is mandatory, free rider concerns are addressed. In the absence of compulsory levies and public funding of R&D, “first mover” and “second mover” advantages apply. Importantly, history provides significant evidence of private funding of basic science, and that *companies that engaged in basic research consistently outperformed those that neglected it; the more basic research a company performed the greater its profits.*³⁶

Everyone living in our country today has existed in a time when government funds science. But the situation we largely find ourselves in today in the field of science is a direct result of the scientific process being politicized in the attempt to obtain government grants.

In the absence of public funding, private individuals, companies, or producers themselves (by pooling funds) will fund research. Oftentimes that does not happen today, because those same entities are taxed, and they deem it appropriate that Government provide the service as a way of recouping tax payments.

Because that “government service” is far removed from the coal face, it eventually goes off-track and gains might be achieved, but in the wrong direction. (Example: Climate Change has been adopted as the pet project by most governments around the world. Funding has poured in. We have had heaps of money spent on, for example, carbon capture in coal fired power plants. Achievements have been made in this vein, but unfortunately, the overall goal of decreasing carbon dioxide in our atmosphere is utterly misplaced.) Government research funding is a huge ship that cannot readily change direction or respond to changing conditions. The speed of technology change in our world today is such that a giant ship cannot possibly deliver what producers need.

One example of this in Western Australia is the no-till farming example³⁷. The state of WA was/is a world leader in developing no-till farming methods. No-till farming, originally developed by private industry and producers, is possibly the single largest source of productivity gains in Western Australia in the last 30 years or so. Water efficiency, input minimisation, rotational concepts...all advanced in concert, originally without public investment.

The slow ship of Government-funded research took some time to believe in and adopt the ideas of no-till farming.

Once the ideas were accepted, they became entrenched, so that flexibility in problem solving was made more difficult. A specific example is producers of the sand plains dealing with non-wetting soils (a problem exacerbated by no-till methods). Farmers noticed in their daily management that through deep working of the soils, the problem of non-wetting was alleviated. It took some time to persuade the GRDC of the potential of their observations. The reason being that, now having adopted no-till as “best practice,” they were reluctant to invest in any solution that involved more tillage.

Private producers, every day, work on solving their own problems. In the mean time, 1% of their gross revenue and some percentage of their tax dollars are being spent seemingly without the farmer or true, on-the-ground solutions in mind.

Conclusion

The PGA believes that current structures and decision making processes of the GRDC do not reflect the interests of growers, who are seeking to maximise productivity gains with their levy contributions. Significant and fundamental reforms of the research and development realm of agriculture are required. In the absence of **growers keeping their own money** to do with as they please:

- 1. The core focus on productivity improvements must be re-established;**
- 2. GRDC should forgo Government matching funding;**
- 3. Under our recommendations, the PIERD Act (1989) would be redundant;**
- 4. Collection of levies should be changed such that invoices are directly issued to farmers rather than being withheld from payments;**

5. **The mandate on GRDC spending should be tightened, so as to ensure a focus on productivity gains. Pre-breeding and National Variety Testing (NVT) are core activities supported by our membership;**
6. **Spending of monies on specific commodity research should be in proportion to contributions by that commodity;**
7. **The levy should be cut to 0.5%, which will yield enough funds to cover the tighter mandate;**
8. **Farmers should be encouraged to directly invest into whatever R&D organisation or research project they wish, with a tax deduction on that investment of 200% (capped at 1% of gross grain revenue);**
9. **GRDC should be corporatised, with shares granted in proportion to levies paid;**
10. **The role of board should be clear and simple: oversight of the mandate; and**
11. **The goal of any ensuing reforms should not be consolidation of existing research organisations, but rather the encouragement of competition, which begets lower costs and higher outputs.**

The objectives of improving productivity and chasing nebulous environmental outcomes are contradictory. Government involvement and the PIERD Act undermine efforts to improve productivity. GRDC, purportedly established to enhance producer outputs, gets pulled in many different directions attempting to accommodate all the special interests of the disparate “stakeholders.” Thus research is compromised.

But even if the aims were properly defined, those aims cannot be achieved by the existing means. A fundamental revamp of the GRDC is required.

Thank you for the opportunity to make a submission. We would be interested in appearing before your commissioners for further discussion on this submission, and welcome any questions or request for clarification at any time.

The Pastoralists and Graziers Association of WA (Inc)
25 June 2010

Appendix #1



Countryman
The voice of the bush since 1885



*You are invited to Partners in Grain WA's
Beef and Beer nights*
June 11th at Balingup Tavern
& June 12th at Dardanup Tavern
6pm Start

*Cost: \$45 per person
Includes 2 course meal of Sirloin Steak,
with a Rich Chocolate Mud Cake for Dessert,
& tasting beers and Great Speakers*

- Hugh Dunn (Edith Cowan Brewing Lecturer) will discuss how four of our favourite beers are made while you are tasting them
- James (DBC) will talk about different cuts of beef, and the quality of those cuts and how farmers can change the tasting qualities of that beef.
- A chef will show how the best steak is prepared

RSVP's are essential by Thursday June 3rd so please ring Julianne Hill on 0897806108, 0408908989 or email julianne.hill@agric.wa.gov.au to register



Government of Western Australia
Department of Agriculture and Food



A non-profit group, building the capacity of the WA grains industry by facilitating professional development opportunities for those in the farm business

Proudly supported by DBC, TAFE WA, and DAFWA.
Sponsored by GRDC, ANZ Banking Group and Countryman

Appendix #2

Sample Farmer - R&D Investment Versus Return

Year	Production (tonnes)	\$/tonne	Sales	Add'l Value from Prod Gain	Levy Paid	Compounded Investment
1	4,000	\$250.00	\$1,000,000.00		\$9,900.00	\$9,900.00
+ .9% Gain	36					
2	4,036	\$250.00	\$1,009,000.00	\$9,000.00	\$9,989.10	\$20,483.10
	36					
3	4,072	\$250.00	\$1,018,081.00	\$9,081.00	\$10,079.00	\$31,791.09
	37					
4	4,109	\$250.00	\$1,027,243.73	\$9,162.73	\$10,169.71	\$43,868.27
	37					
5	4,146	\$250.00	\$1,036,488.92	\$9,245.19	\$10,261.24	\$56,761.60
	37					
6	4,183	\$250.00	\$1,045,817.32	\$9,328.40	\$10,353.59	\$70,520.89
	38					
7	4,221	\$250.00	\$1,055,229.68	\$9,412.36	\$10,446.77	\$85,198.92
	38					
8	4,259	\$250.00	\$1,064,726.75	\$9,497.07	\$10,540.79	\$100,851.65
	38					
9	4,297	\$250.00	\$1,074,309.29	\$9,582.54	\$10,635.66	\$117,538.41
	39					
10	4,336	\$250.00	\$1,083,978.07	\$9,668.78		
				\$83,978.07	\$92,375.88	\$117,538.41
	Productivity Gain ¹	0.90%				
	Price of Grain	250		Nominal / Real ROI:	-\$8,397.81	-\$33,560.34
	Interest Rate	6.00%		Percentage Return:	-9.09%	-28.55%
	Levy Rate ²	0.99%				

¹ 0.9% represents cumulative productivity gains from all areas of R&D including levies, private on-farm investment, commercial (fertiliser, chemicals), CSIRO, CRCs, Universities, State Departments, matching funding, etc

² Levy rate for R&D is .99%. Farmers currently pay 1.02% for most commodities. The additional makeup of the payment is:

0.015%	National Residue Survey
0.010%	Plant Health Australia
0.005%	Emergency Plant Pest Response

Appendix #3

GRDC Cumulative R&D Investment Versus Return

Year	Tonnage	\$/tonne	Total Crop Value	Add'l \$ to Industry		Lewy Income	Matching Funds	Total Investment	Compounded Investment
				Due to Prody Gain	Investment				
1	30,000,000	\$ 250.00	\$ 7,500,000,000		\$ 74,250,000	\$ 39,980,769	\$ 114,230,769	\$ 114,230,769	
2	30,270,000	\$ 250.00	\$ 7,567,500,000	\$ 67,500,000	\$ 74,918,250	\$ 40,340,596	\$ 115,258,846	\$ 236,343,462	
3	30,542,430	\$ 250.00	\$ 7,635,607,500	\$ 68,107,500	\$ 75,592,514	\$ 40,703,662	\$ 116,296,176	\$ 366,820,245	
4	30,817,312	\$ 250.00	\$ 7,704,327,968	\$ 68,720,468	\$ 76,272,847	\$ 41,069,994	\$ 117,342,841	\$ 506,172,301	
5	31,094,668	\$ 250.00	\$ 7,773,666,919	\$ 69,338,952	\$ 76,959,303	\$ 41,439,624	\$ 118,398,927	\$ 654,941,566	
6	31,374,520	\$ 250.00	\$ 7,843,629,921	\$ 69,963,002	\$ 77,651,936	\$ 41,812,581	\$ 119,464,517	\$ 813,702,577	
7	31,656,890	\$ 250.00	\$ 7,914,222,591	\$ 70,592,669	\$ 78,350,804	\$ 42,188,894	\$ 120,539,698	\$ 983,064,430	
8	31,941,802	\$ 250.00	\$ 7,985,450,594	\$ 71,228,003	\$ 79,055,961	\$ 42,568,594	\$ 121,624,555	\$ 1,163,672,851	
9	32,229,279	\$ 250.00	\$ 8,057,319,649	\$ 71,869,055	\$ 79,767,465	\$ 42,951,712	\$ 122,719,176	\$ 1,356,212,398	
10	32,519,342	\$ 250.00	\$ 8,129,835,526	\$ 72,515,877					
								\$1,065,875,506	\$ 1,356,212,398

Productivity Gain¹ 0.90%
 Price of Grain \$ 250.00
 Interest Rate 6.00%
 Levy Rate² 0.99%

Nominal / Real ROI: -436,039,979.73
 Percentage Return: -40.91%

¹ 0.9% represents cumulative productivity gains from all areas of R&D including levies, private on-farm investment, commercial (fertiliser, chemicals), CSIRO, CRCs, Universities, State Departments, matching funding, etc

² Levy rate for R&D is .99%. Farmers currently pay 1.02% for most commodities. The additional makeup of the payment is:

- 0.015% National Residue Survey
- 0.010% Plant Health Australia
- 0.005% Emergency Plant Pest Response

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- ² <http://www.grdc.com.au/director/events/grdcpublications/grainsenvironmentalplan>
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- ⁴ Alston, et al. (2000), Mullen (2007), ACIL Tasman for the CRRDCC (2010), and the Productivity Commission (2007), as noted on Page 9 of the Issues Paper, March 2010
- ⁵ GRDC Report to Industry, Section 4 of Australia Grain's *Grain Yearbook 2009*
<http://www.ausgrain.com.au/Back%20Issues/187ybgrn09/187ybgrn09.html>
- ⁶ Ground Cover Issue 82 - September - October 2009
- ⁷ Kealey, T., *The Economic Laws of Scientific Research* (London, MacMillan Press Ltd, 1996)
- ⁸ Ibid As evidenced by various examples throughout the book, specifically on page 217: *During the late 1920s, Bell Labs inaugurated an overseas radiotelephone service, but it was plagued by static. Jansky, an engineer, was employed to discover the source of this noise, and in 1932 he identified it as coming from the stars. Thus was born the science of radioastronomy. Two other Bell Lab employees, Penzias and Wilson, studying the problems of microwave transmission, discovered the cosmic microwave background radiation, and made the experimental observations that underpin the Big Bang theory (they won Nobel Prizes in 1978). It was only after these industrial discoveries that the universities took up the study of radioastronomy.*
- ⁹ Mallawaarachchi, T., *Promoting productivity in the agriculture and food sector value chain: issues for R&D Investment*, December 2009
- ¹⁰ *Your GRDC Levy Fact Sheet*
- ¹¹ *The Provision and Transition of Industry Development Functions for the Australian Wheat Industry*, Report to the Hon Tony Burke, MP, Minister for Agriculture, Fisheries & Forestry, April 2008, Wheat Industry Expert Group
- ¹² Compiled from a leading Western Australian farm consultancy, averaged over 5 years.
- ¹³ Anecdotal, as gathered from a number individual farmers and farm consultants.
- ¹⁴
<http://www.ruralrdc.com.au/WMS/Upload/Resources/Evaluation/Rural%20RDC%20Eval%20Report%20low%20res.pdf>
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- ¹⁶ Total cropping farms, according to GRDC in the Annual Report 2008-09 are 28,455. Assuming a family of 6 per farm (conservatively high), yields a product of 170,730. Divided by a rounded-down Australian population of 22 million people, a quotient of 0.0078 (or 0.78%) is generated.
- ¹⁷ GRDC website <http://www.grdc.com.au/director/about/>, p. 257
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- ³¹ GRDC Annual Report 2008-09, pp. 173-179, "GRDC Project List"
<http://www.grdc.com.au/uploads/documents/091021%20-%20FINAL%20GRDC%20Annual%20Report%2008-09.pdf>
- ³² Ibid
- ³³ Ibid. Total Employee benefits expense (p. 120) divided by Total employees (p. 112)
- ³⁴ Ibid, Note 12, p. 147
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- ³⁶ Kealey, T., *The Economic Laws of Scientific Research* (London, MacMillan Press Ltd, 1996), p. 225
- ³⁷ The development of no-till took place over many years, and derived from ICI's "spray seed" and minimum tillage concepts. While significant public and producer funding has since gone into no-till, the original concepts, inventions, and innovations over those long years came solely from private enterprise.