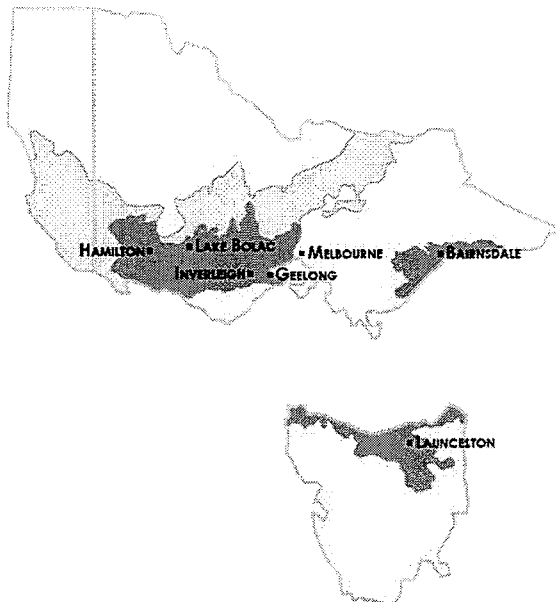


1 Southern Farming Systems

Southern Farming Systems (SFS) was formed in 1995 by a group of farmers who came together to find ways of making farming in the higher rainfall zone (HRZ) more profitable. SFS now has nearly 600 members in five branches; Geelong, Streatham, Hamilton, Gippsland and northern Tasmania. It maintains international affiliations and has a strong link with the Foundation for Arable Research in New Zealand. SFS is one of the largest farming system groups in Victoria, now



recognised as a premier source of grower driven independent research, centred on the high rainfall zones of southern Victoria. Our objectives are to research, develop and communicate the best use of resources, new techniques and technologies for more profitable agriculture; with a specific mission to increase farm profitability and sustainability. Our aim is to achieve its mission by developing more efficient and better adapted farming systems. While SFS maintains strong partnerships with research and extension agencies and with Agribusiness, the information provided to members is highly valued for its quality and independence.

SFS will be asked to play an increased and central role in applied local R&D and extension (R, D & E) in the HRZ under the national strategy for delivering extension to the grains sector, being developed by the state & federal primary industry and natural resource management (NRM) bureaucracies through the Primary Industry Standing Committee (PISC).

2 The Productivity Commission review of Rural R & D Corporations (RRDC)

1. The Board and management of SFS have followed the progress of the review with interest, but as is the case with many not-for-profit grower organisations, our resources are limited, and so until now SFS has elected not to be an active participant. We have read the Commissioners' Draft Report closely and reviewed many of the submissions from interested parties. There are a number of assumptions and recommendations in the Draft report about which we have serious concerns which have prompted us to make a direct response.
2. Our comments should be seen as reflecting our greater familiarity with the Grains R&D Corporation which is the RRDC which SFS has had the most involvement over our 16 year history, and which remains our most important RRDC for funding projects in our region.
3. Contrary to widely held perceptions, the grain production is a complex high technology industry. Managers operating the high rainfall zone (HRZ) farming systems in the SFS area use a range of advanced technologies, some of which are unique to the HRZ because our systems are "high input" by nature. Our grower-members need a strong and well funded R&D sector

to manage these high input systems which are a key factor in their enterprises remaining viable and competitive. Some estimates suggest wheat yields in the SFS region have increased from under 2 tonnes per hectare to almost 3 tonnes in the past 15 years. This has been almost entirely due to adoption of advances in soil management, seeding technology, crop agronomy and better use of crop inputs, and to a lesser extent, variety improvement; i.e. the direct consequence of successful R, D & E. With continued investment in R, D & E in the HRZ e.g. integrating canopy and disease management strategies, yields and profitability can be lifted well above this average.

4. We agree with the Commissioners conclusion that the current commodity based, compulsory producer levy model for directing rural industry R&D investment has served Australia and the agrifood industries well, and can confirm it has made a measurable contribution to maintaining the competitiveness of our industry and its enterprises. Therefore we would agree that any changes should be at the margins and where change is recommended; it should involve a long transition period and opportunity for adjustment.
5. We agree one of the key strengths of the model lies in the benefits close links to producers and a strong sense of ownership engendered by levies bring to the Research, Development & Extension (R, D&E) process. These links and ownership mean that there is a filter applied to R&D priorities and proposals by practical enterprise managers. This means there is better targeting of applied R&D programs and projects, and ready-made channels are in place for extending the R&D innovations to enterprise managers.
6. The two recommendations of most concern to our organisation are the proposed 50% reduction over time of federal investment in the existing RRDCs, and the proposal to create a Rural Research Australia (RRA). The proposal to use 50% of the funds saved by reducing investment in the productivity priorities of the RRDCs to fund this new agency adds to our concerns. The RRA concept still looks very like a NRM agency to replace the now-defunct Land & Water RDC.
7. These two changes represent a threat to the future viability of organisations such as SFS. If the recommended changes were implemented, SFS would be faced with a significantly reduced available funding pool from RRDCs. To continue to provide our valuable services, we would need to make even greater calls on the subscriptions and volunteering efforts of our members. This is a difficult challenge, due to pressure on incomes, declining farming population and social changes effecting people's ability to volunteer. We are not convinced that growers have the capacity to invest more than they are currently doing via levies and fees paid directly to consultants for on-farm research. We fear the funds (\$50m) and the R&D it would have supported will simply not happen.
8. As we have noted, SFS serves the High Rainfall Zone (HRZ) which is a rapidly developing, reliable production zone, outside the long-established medium to lower rainfall wheat-sheep zone, which has historically produced most of the Australian crop, paid most of the levies and thus attracted most of grains R, D & E investment. As we have noted we fear that reduced government investment in the GRDC program will reduce the funds available. We agree with

the draft report's suggestion that increasing the proportion of levy money in the funding mix will increase the power of levy payers to direct funds, which the report identified as a benefit of the new arrangement proposed.

However under this proposed funding mix arrangement it is most likely more funds will flow to the existing production zones due to the pressure on the GRDC to match funding allocations to existing levy players in their production regions and the organisations servicing them. The consequence of federal withdrawal may be increased agri-political influence in setting research priorities and allocating funds. The needs of the HRZ and groups serving it such as SFS will be vulnerable if the agri-political negotiations we foresee eventuate. This is likely to be the case even though the potential productivity improvements possible in those drier, more seasonally volatile regions might be only marginal. There is a high risk of less forward-looking investment in new regions such as HRZ where there is large potential for significant increases in production. It is hard for us to imagine the RRA accepting responsibility for funding SFS and HRZ priorities if GRDC funds decline by \$20-30 million.

This is not idle speculation on our part; the draft report quotes from the WA Grains Group submission threatening exactly this scenario. If this risk to a more balanced long-term view of R&D investment materialises, a direct consequence will be slower development of the HRZ region without any offsetting benefits in the traditional cropping regions with a nett loss to the industry and the nation.

9. Simultaneously, the existence of a \$50 million NRM fund would create an incentive and a necessity for SFS to juggle (or "misallocate") our efforts and priorities toward NRM activities and government objectives, which are, unsurprisingly, regarded by many of our members as non-core business. It is an unfortunate fact that in the case of a number of large grower groups, including SFS, the grower members have a perception that NRM issues have in recent times taken precedence over work to help meet productivity challenges. This was especially obvious during the long drought, where these NRM/environment sources have often been the only funding available to enable our type of organisation to survive. This move from core business has been partly to blame for a worrying decline in member engagement, commercial support and consequently a reduction in R, D & E delivery effectiveness.
10. In summary, we see significant risks in the Rural Research Australia (RRA) recommendation. It will almost inevitably be seen as a reincarnation of the LWRDC with a focus on NRM, and what the government thinks is best for the industry and land managers, which is never a good starting point. We suggest that before it becomes a final recommendation, extensive market research is undertaken by the Commission, reaching beyond this consultative process to those producers and land managers we submission writers do not represent. The purpose of this research would be to scope the likely response of rural communities and the industry to the proposed new body and ensure this is well understood so the risks and implications are clear before any action is taken.
11. The irony of the two draft recommendations discussed above is they would coincide with the implementation of the PISC strategy for R, D & E which will be implemented first in the

cropping sector. In this strategy, state and federal agencies are asking established grower organisations such as SFS to become the main vehicles for delivering agricultural technology transfer services (i.e. applied R&D and extension) and supporting on-farm innovation, as the agencies withdraw from frontline services. At the same time organisations such as ours are also being told by federal agencies and ministers that the old NRM investment and delivery model has failed because it failed to link management innovation and productivity practices in agricultural enterprises with “good” NRM outcomes and that grower-based organisations such as ours will be pivotal to finding ways to fix this disconnect.

We recognise the role of the Commission as a specialised, independent economics review body and our point may not be totally relevant to its deliberations, but we would like at a minimum to see the federal government agencies’ strategic directions better aligned.

3 Data, rationale & assumptions behind the draft recommendations

1. SFS has analysed the draft report to try to understand the nature of the research process, data and sources underlying the assumptions and reasoning which lead to the Commissioners’ findings. In the time available today we will restrict our comments to a few key questions with direct relevance to our organisation’s situation. As the review progresses we would appreciate another opportunity to raise additional questions about the draft with the Commission.
2. The report concludes, with some caveats on the validity of available comparative data, that;
 - The total investment in agricultural R&D in Australia is in line with OECD benchmarks; but
 - the federal government’s contribution to agricultural R&D investment is “*generous*” in comparison with other areas of the economy; and
 - the mix of private & public investment in agricultural R&D in Australia is balanced too heavily toward public investment when compared with comparable OECD agricultural exporters;
 - the federal investment of \$228 million (\$44 million or 36% of the Grains total) is not resulting in additional project investment which would not otherwise have been funded by growers; and
 - RRDC investment is crowding out private R&D and if the government withdraws 50% of its co-investment funds from RDC productivity research, the private sector (however that is defined) will fill any resulting gaps.
3. There appear to be some flaws in the benchmarking data and the research which underpins the assertion that the taxpaying public/consumers’ contribution to agrifood research is relatively “generous”, in both international and domestic terms. We suggest this question needs a more thorough and better resourced investigation than has happened so far. Citing a high-level OECD study and a meeting with NZ officials is not enough to allow any conclusions to be drawn.
4. We can point to marked differences between the Australian market and agrifood value chain and that of the US, Canada, France and Germany which make simple comparisons with

respect to the first three points in paragraph 2 above potentially very misleading. For example;

- The US agrifood market is many times the size of the Australian market and much less export focussed. 60% of its 60 mmt wheat crop is consumed within NAFTA, vs. the 20mmt crop in Australia, of which 75% is exported. So our whole industry structure is different and thus has quite different R&D drivers and private-public investment mix.
 - The biotechnology and seed sectors are major investors in agrifood R&D. Not only is the NAFTA market larger and therefore a more attractive location for R&D facilities (which means relatively more investment), the USA has a strong intellectual property rights system (IPR) which supports returns on investments by biotechnology firms' and crop variety breeders. In contrast, Australian IPR in the agrifood sector is weak and there are no signs of change; for example, the absence of any useful federal government assistance plant breeders and proprietary variety commercialisers in the enforcement of their Plant Breeders Rights, as compared for example to the music industry. Thus comparisons with the USA with respect to firms' investment behaviour have little value for benchmarking the Australian situation. At the very least, Australia cannot hope to have significant private investment substitute for government funding until our many institutional and legal weaknesses are removed.
 - In France, the food and agriculture sector is large and well-coordinated both internally and with government, through cross-sectoral industry groups such as the Demeter Club and as a result of the electoral clout of the rural industries. Using the biotech-plant breeding sector again, the French government supports the IPR of breeders and proprietary variety commercialisers with enforcement of their IPR, even collecting penalty royalties from avoiders. Again, the usefulness of a bald comparison with France of R&D expenditure as a % of industry value is as questionable as it is with the USA.
5. These examples, amongst many, indicate that assumptions about the relative generosity of the RRDC arrangements in Australia and hypothetical investment behaviour of growers, co-operatives and private firms in the wake of a reduction of federal funding for productivity R&D, need to be more thoroughly investigated before making categorical policy recommendations.
6. With respect to the 4th and 5th dot-points in paragraph 2 above, the Australian market for new technology in most broadacre crops is *"interesting but small"* to quote one biotech multinational executive. Seasonal volatility here is a major risk perceived by offshore agri-technology companies. So in the absence of a game changing development which greatly increases the size, value and reliability of Australian broadacre grain production, and given the weaknesses in Australia's agri-technology investment environment, e.g. poor IPR protection for input suppliers, or the registration regime for imported generic crop chemicals, we think the assumption that private funds will substitute for the government's R&D investment is unlikely to become reality any time soon.

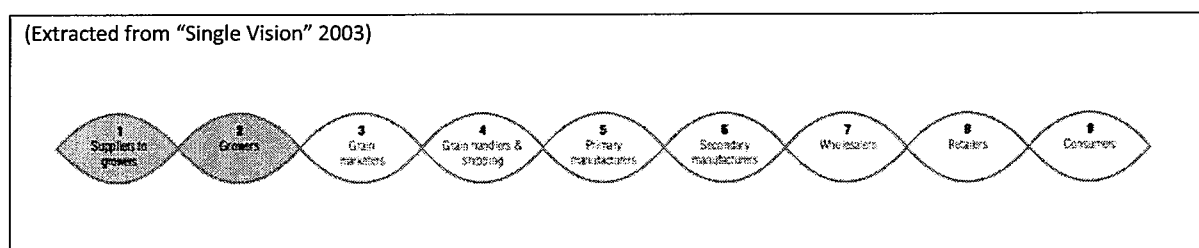
4 Who are the free riders on Rural R&D Corporations?

1. The draft report repeatedly mentions the generous nature of federal funding and in response to final term of reference, notes the effectiveness of compulsory producer levies in “eliminating free-riders”. This is an accurate reflection of the facts but it misses the point.
2. In the grains industry, recent complaints from some growers, researchers and input suppliers about free-riders have **not** been in reference to growers. The “free-riders” referred to are those firms downstream in the value chain that do not make an equitable direct contribution to the cost of R&D, yet draw significant benefit from the outputs. By equitable, we mean an investment which reflects their share of the value added by for example, increased and more reliable supplies of better quality, safer and healthier commodity tailored to suit their needs.
3. A high-level scan of the R&D being conducted by GRDC across the whole grains commodity value chain leads us to conclude there are firms in some segments and even whole segments which extract benefits without making any direct financial contribution to the value added to the chain by R&D activities, other than through the taxes they pay.

Most input suppliers have relatively large R&D investments while growers “own” R&D through the GRDC levy, and their voluntary research levies and private investments. Input suppliers and growers know they must fund the R&D so they can supply a valued product to their customers or risk seeing them go elsewhere to source supply. Growers exist in a truly competitive market and do not enjoy the duopolies or geographic monopolies enjoyed by some firms in other parts of the grains value chain.

However growers and input suppliers are also aware that they retain only a small proportion of the benefits which come from R&D which improves the reliability, quality and range of commodity supplied to firms downstream in the chain. “Free-rider” downstream firms rely, whether they know it or not, on R&D funded by farm-gate levies and governments.

Figure 1: The grain industry value chain



It is a well-established fact that in the grains value chain, the benefits of R&D are distributed disproportionately, with greater benefits being gained by firms as product is handled and processed further down the chain away from growers. In the real world, retailers and consumers gain the greatest benefits, at no risk and little or no direct or indirect cost to themselves for R&D and product development, even taking into account the federal (or taxpayer) contributions to rural R&D. Some of the direct benefits to consumers are the result of lower food prices, greater choice and higher product quality and safety, which are often the result of what is inaccurately described as “productivity” R&D. A simple example is research

to develop in-crop nitrogen fertility management practices for wheat. These agronomic practices deliver greater volumes of wheat on the market with a grain protein content and quality which meets flour millers' protein specifications. This in turn reduces their need for expensive gluten additives in bakery flour mixes, reducing millers' product cost so some of the savings are passed down the chain.

GRDC also invests in on-shore & off-shore grain processing R&D, i.e. quality and suitability for purpose, which has helped Australian grains remain competitive internationally, particularly in Asian markets. GRDC has done this through investments in CSIRO, universities and departments of agriculture and via CRCs (Grain Foods, Molecular Plant Breeding, and Quality Wheat), the Pulse Australia and Barley Breeding Australia organisations, and the Wheat Classification Council.

Let us assume the Productivity Commission's recommendation of a greatly reduced federal matching contribution to GRDC is adopted. Let us also assume GRDC continues to invest in processor and consumer end-use projects for the sound commercial reasons given above. Isn't it important to know how much downstream firms, particularly the "*free-riders*", will benefit from this R&D **before** withdrawing federal funds?

The policy guiding public R&D investment should be based on an understanding of the whole supply chain, what firms in all segments invest in R&D whether by direct funding or via taxes and levies and what the upstream and downstream multiplier effects are worth. We think a cost-benefit analysis, segment by segment over the whole supply chain, would determine whether the benefits flowing to firms in downstream segments and consumers (or taxpayers) from current and historical GRDC funded R&D is equitable and proportionate. We suspect the conclusion could well be that the current federal matching contribution is achieving a more reasonable and equitable outcome and is minimising *free-riders* across the chain, but might be too low.

It seems reasonable that in the absence of a direct contribution to R&D in the supply chain, the beneficiaries of grower-funded R&D should pay their dues by other means. We estimate that the federal contribution to the RRDC budget equates on average to about \$23 p.a. per taxpayer (as a food consumer). Taking the Productivity Commission's estimate of the full cost of Agricultural R&D (which the Commissioners acknowledge is based on questionable information) that sum rises to just \$150 p.a. per taxpayer, equivalent to about 1/3 of an average family's weekly supermarket expenditure. For the benefits downstream firms and consumers enjoy from government and grower-funded R&D, \$150 p.a. seems a modest reimbursement.

We note that the tax taken from a grower in the SFS region by all levels of government for grain produced and transported to the nearest port is more than \$35 per tonne not including the compulsory R&D levy (see Appendix 1). That is, growers are already paying a fair share without taking into account the taxes collected as a result of multiplier effects their enterprises create in their communities and service sector.

4. Given there is no mechanism other than taxation in place to address the inequities we have outlined above, and that at this stage we can only guess at the level of inequity across the chain, we would like to see the Commission re-visit the whole question of "*free riders*" using a whole-of-chain approach, and draw some conclusions about the shares of costs and benefits across the chain.

It may well be the case for an assessment of a "generous" federal government is weak, and perhaps there is a stronger case for increasing the RRDC co-investment cap.

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