Ministry for Primary Industries

Progress Review of the Marbled Grass-fed Beef Primary Growth Partnership (PGP) Programme

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Overall the MGB programme appears to be targeting beneficial outcomes but is being challenged, particularly in increasing overall cattle numbers. Efforts directed at integrating the beef and dairy value chains to ensure a 52-week stable supply of well-finished, well-marbled grass-fed beef derived from Wagyu cross animals need to be accelerated. Its forecasts seem optimistic and should be thoroughly reviewed especially the net economic benefits beyond the programme's end in 2019. MGB's governance and management has also been tested by its demanding objectives and the differing approaches of the partners. A realistic reset of the programme's aims, greater strategic interaction between the partners and improved management reporting would enhance MGB's prospects of success.

The marbled grass-fed Wagyu beef (MGB) Primary Growth Partnership programme started in August 2012. It entails investment of $23 million over 7 years and is focused on positioning New Zealand beef at the premium end of international markets and delivering long-term economic benefits from producing and selling highly marbled grass-fed beef from Wagyu cross cattle. Sapere Research Group was engaged by MPI in February 2015 to provide an independent progress review of the programme after its first 30 months.

The overall objective of this programme is in step with the findings of recent reports on strategies needed for the New Zealand meat industry. It is seeking to increase the volume and quality of marbled grass fed Wagyu beef produced and ensure that consumers in New Zealand and overseas see real value in Wagyu products compared to other food protein options. Through this strategy it is seeking to earn better returns for all those along the value chain; from farmers to marketers.

By June 2015 42 percent of the time available in the 7 year programme will have been completed. However; only 26 percent of the total budget is expected to be spent. This highlights the delays compared to plan that have occurred in the MGB programme.

Nearly 3 years into the programme the first cohort of farmers has received a pool payment where the average price for MGB exceeded the prime steer price by around 80c/kg. These results for farmers should provide a source of positive testimonials which can be used to build interest in the programme. These positive farmer returns should combine with the supply chain strategy of the programme to create an opportunity to grow.

The number of Wagyu cross animals has increased from 4,500 to 7,800 (73 percent) over the first two and a half years the programme has been running. This is commendable but according to the 2014/15 annual plan, the MGB team now faces the sizable challenge of taking stock numbers up to 36,000 by 2019, around 80,000 two years later in 2021 and circa 750,000 by 2028. While the 2021 and 2028 estimates were originally termed aspirational, they will be a real test because the Wagyu cross option may not be compelling enough for farmers relative to other land use choices (Since this report was penned the fall in the dairy pay-out has greatly increased interest in crossing with Wagyu so forecasts have improved markedly). However, the 2016/17 business planning round should involve a thorough re-evaluation of forecast MGB production and net economic benefits from now to 2019 and onto 2028.

A significant proportion of the forecast increased Wagyu cross stock numbers are to come from growing the Wagyu dairy cross calf numbers which is a key outcome for the

Government from the programme. Building the numbers of dairy cross calves entering the programme has proved much more difficult than expected at the outset. There remain a range of hurdles, both of perception and practice to overcome to achieve this aim. The programme is putting resources into addressing these hurdles.

Addressing bull numbers, AI processes, ensuring attractive relative returns and easing the practical issues dairy farmers face in crossing their herds with Wagyu will be critical components to being able to meet the programme's stock number targets. The sexed semen programme is important for the multiplication of Wagyu bulls for natural mating and this is a priority. In addition, the Angus-Jersey cow work still has merit to the industry and should be pursued as a "stretch objective" of the programme, especially once some of the efficiency parameters have been quantified. It would need to be supported by the dairy integration PR initiative, and eventually by great numbers of Wagyu bulls.

The impact on the programme's marketing strategy of more than halving the 2019 targets for animals killed in last year's annual plan, and any further changes to these forecasts, needs to be evaluated as part of the 2016/17 annual plan. Given the lower volume of product being forecast, concentrating resources in the short term into effectively accessing and further developing current markets should be considered. This could avoid stretching Firstlight Foods (FLF) resources too thinly, better ensure that supply meets consumer demand in existing markets and increase the chances of long run success. Further, as the marketing programme has evolved a product segmentation has emerged; some market specific and others product specific. To provide clarity on where the best value can be secured for each product segment and which products are best suited to each market we have recommended that the current country focused structure should be reviewed. This could help to ensure that new pathways to market, particularly for the highest value products (high marbling score prime cuts), remains the focus.

Building a market position where branded MGB is in high demand and is strongly differentiated is likely to be an incremental process. Go Direct entities have replaced master distributers and importers in target markets. But other aspects of the Go Direct strategy are work in progress. For example, building a brand that has significant in market cachet so that it can command a material amount of retailers' usual margins by 2019, as targeted in the business plan. This is likely to be challenging given the strength of retail and food service sectors in the food products value chain in certain countries. The strategy that will take the Go Direct" model from where it is now to achieving its aims in the identified markets by 2019 needs to be better explained in the next annual plan.

The review team found the partners in the MGB programme committed to its success. However, the relationship between them could be strengthened by continuing to work towards improving the quality of governance and management information and by putting in place additional measures to separate strategic issues from administrative concerns and increase strategic interaction between MPI and the IAP and the programme partners. We also suggest that there are a number of improvements which could be made in the programme's planning, reporting and monitoring. Reporting should be pitched at a level that allows the Programme Steering Group (PSG) to monitor the programme effectively, while not imposing an undue administrative burden. There have been improvements in reporting information in quarterly reporting in 2014/15 and we have suggested further areas for consideration. Ensuring that the reasoning and any caveats for all decisions are clearly and comprehensively recorded would also assist.

Recommendations

1. The review team make the following recommendations:

Governance

(a) Consider additional ways to further separate strategic from administrative functions. This could involve instituting a high level governance meeting to be held near the end of the planning process to give the opportunity for the IAP and the MGB partners to discuss strategic issues in the plan face to face. This could also apply should there be any significant reallocation of resources within the programme during the financial year that needed to be discussed and approved at a higher level than the PSG. (Refer to section starting at paragraph 199)

(b) A number of initiatives have been put in place to address concerns within the management of the programme. However, the review team believe that more could be done to build on this foundation. Partnerships Victoria's June 2003 Contract Management Guide[1] identified factors to be considered in setting up partnership management structures and suggested that should be described in the contract documentation. We suggest that these sorts of factors are a good check list for the MGB programme's governance (Refer to paragraph 203).

(c) We also suggest focusing technical and administrative issues into a separate meeting that precedes PSG meetings. This could involve the MPI investment manager and the Programme Manager along with any others needed. A formal step like this might help resolve these issues prior to the PSG. In this way the day-to-day partnership management and administration could be better separated from governance of the overall strategic relationship and long-term strategic issues. (Refer to paragraph 210).

(d) We suggest that there could be value in a standing agenda item encouraging discussion/consideration of strategic programme related matters over a longer time frame. It may also be helpful to look for opportunities to include relevant MPI personnel in such discussions from time-to-time when their input could assist/be of particular relevance to 2019 and 2028 outcomes (Refer to paragraph 211).

(e) At a technical level, we suggest that it could be useful to work with beef sector MPI SOPI[2] specialists and Beef and Lamb NZ Economic Service personnel to refine what data sets can be used for comparative purposes and in ensuring efficient, least burdensome, reporting. (Refer to paragraph 212).

(f) Market access arrangements often take a period of time to negotiate. The opportunity for dialogue with the appropriate MPI specialist could help ensure that market access arrangements are in place for each country and type of MGB product intended to be sold. Identifying these prospects or opportunities early

1 www.partnerships.vic.gov.au

2 Situation and Outlook for Primary Industries, Economics & Information Analysis team, Sector Policy, MPI.

and ensuring that they can be progressed and/or resolved should be of assistance to the MGB programme over the long run. (Refer to paragraph 213).

(g) The review team has made a number of recommendations about further improving the monitoring information provided in quarterly reports. We believe that Netsuite should allow this reporting to be done quickly and easily once processes are bedded down to be replicated each quarter. (Refer to paragraph 214).

(h) We believe that the Office of the Auditor General's recommendations to MPI about clearly and comprehensively recording the reasons for the IAP's decisions are also apposite for PSG decisions. Records of PSG decisions can disconnect the decision from the reasoning for it. We suggest that PSG decisions are clearly recorded and that reasons for decisions and any caveats are explained. We also recommend that a running total of all Stop Go decisions and their reasoning be appended to quarterly reports and highlighted in PSG minutes so they can be easily found and referred to. (Refer to paragraph 216).

Programme metrics & key performance indicators (KPIs)

Terminology

(i) Agree a single definition of the product being produced by this programme. A number of varying descriptions have been used over time in programme documents including the contracts, for example 'high quality marbled beef' or 'high quality grass-fed cattle'. We recommend marbled grass-fed beef (MGB) meaning marbled grass-fed beef derived from Wagyu cross cattle. This could help to reduce misunderstandings and confusion in future. (Refer to discussion in paragraph 52 and 120).

Price targets

(j) Consider updating the incremental price target key success indicator for the MGB programme from the existing $6.32/kg in the contract and the Outcome Logic Model target of a price 50 percent above prime beef. The clearest way to show the value achieved by the MGB programme would be to update the business plan estimate of the incremental value of $2.12c cents per kilo of carcass weight. This value relied on estimates of Wagyu cross returns from contracts in place in 2012 and the annual average return for prime beef in 2011. (Refer to paragraphs under "Pricing" 41 to 44 and "Returns" 55 and 64).

(k) Review the business plan estimates of Wagyu cross returns in 2012 and annual average return for prime beef in 2011 to ensure they provide a fair starting point of $2.12c/kg as in the business plan. (Refer to paragraph 58).

(l) Consider some type of smoothed price premium time series, for example a quarterly Wagyu price premium over prime beef and communicate it to Producer Groups instead of the $6 target. Farmers will be comparing the value of farming Wagyu cross with other options such as prime and bull beef. Targets therefore need to be transparent and consistent over time about where the extra value is expected to come from, what has been achieved to date and what will be achieved by 2019. (Refer to paragraph 63).

(m) Carefully review the weekly price data used to derive price charts in the quarterly reports (Wagyu returns vs prime steer) because the data has unexplained gaps. (Refer to paragraph 63 and recommendation (e) about working with beef sector MPI SOPI specialists and Beef and Lamb NZ Economic Service).

(n) Consider dropping the net price target "*An increase in the average value of $475/head for pastoral beef animals.*" from the contract. This price does not appear to be explicitly monitored in programme reporting. It is also unclear how these extra costs of running Wagyu cross were calculated. In reality each farmer faces their own unique costs. If this average net value cannot be replicated or monitored perhaps it should be dropped. Refer to paragraph 65.

Volume targets, GDP benefits and spill over benefits

(o) Carefully investigate and reforecast the effects of the drop in 2019 target for finishing MGB cattle from 32,500 per annum to 15,000 per annum in the upcoming 2016/17 annual plan. The assumption made in the 2014/15 plan that this change in volume would only delay economic outcomes forecast for 2019 for circa two years, such that GDP benefits would spike from $10 million in 2019 to $24 million in 2021, seems optimistic. Interviews indicate that some major potential suppliers remain cautious about expanding production of Wagyu cross calves and the programme was 1,146 matings behind target to December 2014. These factors indicate that it will be very challenging to achieve the increasing rate of growth required to be running 36,000 animals and slaughtering 15,000 in 2019. (Refer to discussion in paragraphs 51 and 52).

(p) Reassess the impact of this volume reduction on FLF and any flow through to market development activities in the 2016/17 annual plan. (Refer to paragraph 67).

(q) Refresh the economic impact assessment as part of the 2016/17 annual plan to assess the impact of the lower reforecast volumes on key indicators of success such as the GDP and farmer benefits of the programme and retain copies of this assessment for future review. Should this reassessment show significant change was likely it would be necessary to report these changed circumstances for this programme to the Minister of Primary Industries. (Refer to discussion in paragraph 51).

(r) We recommend that the spill over effect 'benefits to consumers', should be reviewed in the 2016/17 annual plan to take account of any change in the forecast for animals planned to be killed in 2019. (Note this spill over effect is the only one that was numerated in the original business plan). How the benefits of the other spill over and capability KPIs are expected to flow from which activities in the programme should be more clearly described in annual planning. For example how increased skills in cattle transport and beef processing facilities would come about. (Refer to paragraph 222 to paragraph 224).

Monitoring

(s) Given the challenges in meeting volume targets consider providing further granularity in the next annual plan and quarterly reports of total calves, yearlings, two year olds and three year olds. This should improve transparency and help to reveal whether assumptions about rising stock numbers are realistic. This should be possible particularly with Netsuite fully implemented. (Refer paragraph 54).

Objective One

(t) Some Stop/Go decisions are not clearly explained. An example is the decision to refocus the New Technologies milestone (1.1.2). It was taken at the 30 May 2013 PSG but the reason was covered briefly in the previous PSG minutes of 25 February 2013. See recommendation (h) and 76).

(u) Keep pursuit of the original objective of using AI sexed semen under periodic review. Ultimately if dairy farmers can use Wagyu AI at the same time as their normal AI mating (to mitigate having to extend the AI mating period), it would overcome the problems of calf identification and extended gestation affecting milking performance. (Refer to paragraph 77).

Objective Two

(v) Ensure the "how to" manuals are as current as possible by seeking feedback on how useful they are and amending where improvements are identified either by farmer responses or through quarterly Producer Group meetings. (Refer to paragraph 86).

(w) Consider further investigation of the reason that Wagyu Producer Group members have a higher perception of risk than their compatriots in the beef industry. This may have changed with March 2015 pool payments. (Refer to paragraph 88).

(x) We suspect that north Taranaki, King Country, north Waikato and Bay of Plenty could be logical target areas for Producer Group members given their more consistent growth conditions that better match the need for year-round supply. These regions also already have an accepted "interface" between dairy and dry stock systems. Wagyu finishing could be pitched as an alternative to dairy heifer grazing, provided the margin can cover not only the longer finishing cycle, but also the capital required to own the animal. (Refer to paragraph 92).

(y) The business plan noted that dairy farmers received $20 per head for 4 day old bobby calves. It was estimated that the programme would need to pay $80 per animal to secure the target of that time of 70,000 calves required to enter the system in 2019. This pricing dates back to the inception of the project so we suggest that it would be useful to update this during the preparation of the 2015/16 annual plan. (Refer paragraph 93).

(z) Targeting autumn mating because these farms often still source their replacements from spring calving cows and are therefore more likely to use non-replacement bull sources. (Refer to paragraph100).

(aa) We support the priority on targeting larger dairying operations that run separate "cull" herds from which they source no replacements. As a second priority we support the targeting of smaller (<400) cow herds as owner-operators and staff are more acquainted with their cows, more likely to be incentivised for higher-value calves and to get heat detection right. (Refer to paragraph 101).

(bb) We believe that the MGB programme should continue to look for ways to promote crossing with Wagyu as a way of adding value to calves which should lower pressures on dairy farmers to euthanize unwanted calves. This could be achieved by face to face discussions with key groups such as Vets, Dairy Women's Network and Dairy NZ. We also wonder whether there might be potential for MPI to assist in brokering these discussions. (Refer to paragraphs 104 and 105).

(cc) There needs to be an initiative to provide dairy farmers opportunities to physically engage with Wagyu breeding and Wagyu rearing systems. Farmers are generally kinaesthetic learners. We believe that this will be achieved most effectively by holding meetings of small groups of farmers where not only the production and financial attributes of the business are promoted, but also the philosophical merit of the supply chain ownership model. (Refer to paragraph 106).

(dd) There needs to be a concerted effort to multiply up the number of commercial Wagyu bulls. The provision of enough bulls for live matings is of high priority. (Refer to paragraph 108).

(ee) There also needs to be a concerted effort to improve the timeliness, processing, storage and handling of Wagyu semen to ensure a comparable or better service for dairy farmers than alternatives. (Refer to paragraph 99).

(ff) Consider value of approaching Dairy NZ again to increase its understanding of the MGB programme. There may be potential for MPI to facilitate this. (See paragraph 107).

Objective Three

(gg) Explain the "Go Direct" model fully in key MGB programme documentation, e.g. the 2015/16 annual plan. Set out in more detail the likely steps to capturing not only the master distributer and importer margin but also material amount of retailers' percentage, in the identified markets by 2019. It would be helpful to pinpoint any relevant weigh-points where progress can be measured. (Refer to paragraph 118).

(hh) Given the significant reduction in targeted kill to 15,000 animals by 2019 we suggest that the PSG consider concentrating resources in the short term into effectively accessing and developing current markets. Concentrating resources on these markets could increase the chances of long run success, avoid stretching FLF resources too thinly and better ensure that supply meets consumer demand in the four existing markets. (Refer to paragraph 124).

(ii) As the marketing programme has evolved a segmentation of product offerings has emerged, some market specific and others product specific. We encourage the PSG to consider whether structuring this objective by country is the most appropriate way of ensuring that new pathways to market remains the focus, particularly for the highest value products (high marbling score prime cuts). An alternative might be to structure this objective along the lines of the product segmentation already occurring. Reporting on initiatives related to volumes, value and market by, for example, prime cuts (MBS4-5 and above; MBS2-3; et al), value-added products (burger patties/sausages et al); and trim could be more informative/comprehensive. It could also provide clarity on where the maximum value could be extracted for each product segment (particularly when volumes are low) and which MGB products are best suited to each market. (Refer to paragraph 125).

(jj) We recommend that milestone numbers are not re-used and that a decision taken in respect of each milestone completed or deleted from an annual plan be formally recorded against it and retained in each schedule 5 to provide a time sequence to follow in future. (Refer to paragraph 122).

(kk) We recommend that charts be provided in the quarterly reports that show not only actual and forecast sales and volume for each market but also an average price time series and an appropriate margin time series such as net profit before tax (NPBT). This would provide an improved and quicker way for the PSG and IAP to monitor progress against these critical KPIs at a suitably aggregated level. As with the existing charts, these charts should have accompanying key commentary points to explain any major new trends. Netsuite should allow more timely, accurate and easier reporting. (Refer to paragraph 123).

(ll) Financial support for developing the domestic market was to end by 31 December 2014. It's not clear if New Zealand market milestones will be retained for the rest of the MGB PGP but this should be addressed as part of the 2015/16 annual plan. If all reporting on the New Zealand market is to cease from this date, we suggest that the 2015/16 annual plan record what aspects of the 'Go-Direct' programme were tested in the New Zealand and Australian markets, what worked, what didn't and what will flow through to the international markets i.e. a post implementation review. With some 30 percent of co-investor funding attributed to this area a close out report could also note at an appropriate level what was purchased. (Refer to paragraph 139).

(mm) The review team suggests that reporting of key information would be improved further if sales and volumes were shown from the inception of the programme in August 2012 and before if available. A time series going further back would allow some assessment of the additionality of the MGB programme. This information could be augmented by adding in an average price chart. (Refer to paragraph 142)

(nn) FLF undertake value-add production of burgers and sausages offshore for some markets, we understand. This may have a solid commercial rationale.

However, we suggest that FLF and MPI Regulations and Assurance Branch discuss any market access issues that could be impeding value add activities taking place in NZ. (Refer to paragraph 155).

(oo) We recommend that quota related arrangements be reviewed as part of the annual planning process. (Refer to paragraph 163).

(pp) There are at least 3 other PGPs which have relevance to, potential synergies with, or cross-over with the MGB programme including the Red Meat Profit Partnership, FoodPlus and Farm IQ. There may be benefits in coordinating these PGPs through some sort of roundtable of the key people from the four programmes to identify any potential areas for collaboration/areas of overlap. (Refer to paragraph 171 and 172).

Objective Four

(qq) The Angus-Jersey cow work still has merit to the industry and we would like to see this pursued as one of the "stretch objectives" of the programme, especially once some of the efficiency parameters have been quantified. It would need to be supported by the Dairy Integration PR initiative, and eventually by the availability of Wagyu bulls. (Refer to paragraph 192).

(rr) We also consider that it may be worthwhile exploring the potential to supply an increased number of stories to rural media about progress in this objective to help build curiosity about and interest in the MGB programme. (Refer to paragraph 193).

MPI Funding

(ss) The review team recommend that MPI draw together the funding precedents created by the MGB programme and other PGPs into one document. We believe that this could help investment managers make future funding decisions more easily as well as respond to external inquiries and save time and reduce the administrative burden of current and any future PGPs. (Refer to paragraph 218).

Other

(tt) Toll-processing arrangements could become quite problematic, particularly as throughput increases, and it would be sub-optimal for a bottle-neck to occur. We suggest that PSG review this annually (perhaps during the annual planning process) to be satisfied that there are robust slaughter and processing arrangements in place for the estimated kill numbers and their geographical concentration. (Refer to paragraph 221).

(uu) A number of market claims are made about the programme's products. We suggest that MGB include a definition for "Grass-Fed" in all relevant MGB PGP documentation. We recommend that MGB programme also review its use of terminology referring to 'hormone free' and in all relevant documentation, in-market signage and labelling to ensure that it is consistent with the official system that underpins it and that MGB and MPI Regulations and Assurance Branch formally determine what 'antibiotic free' claims can legitimately be made. (Refer to paragraph 225 to 232).

(vv) We recommend that IP created by the programme should be kept under periodic review including during the 2015/16 annual planning process to ensure that material IP it is adequately protected. (Refer to paragraph 233 and associated paragraphs).

(ww) We recommend that for any future independent review that all relevant documentation be collated and made available in hard and electronic copy on the day the contract is signed.

Progress review of the marbled grass-fed beef PGP programme

Introduction

2. The Primary Growth Partnership (PGP) is designed to lead to greater market success for New Zealand's primary industries through long-term government and industry joint venture programmes. Key goals of PGP are to boost productivity and profitability across the primary industries and deliver long-term economic growth and sustainability.

3. MPI has a goal of doubling the value of New Zealand's primary industry exports by 2025 as part of the Government's Business Growth Agenda. This will require a significant improvement in both volume and value of exports.

4. The Cabinet Paper that set up the PGP programme[3] required that investments aligned industry and government and were additional to existing initiatives and work programmes. The Cabinet Paper noted that significant step change was likely to take some time, but that did not detract from the expectation that programmes will be beyond business as usual. It also noted that programmes would consist of a suite of complementary and mutually supporting projects targeted at a range of points along the value chain, but not every programme would necessarily be expected to cover the entire breadth of the value chain.

5. Programme proposals would also contain a plan for the appropriate management of any intellectual property (IP) to ensure maximum benefit to New Zealand. This would be determined on a case by case basis.

6. Overall there would be matched investment from industry and the government at the programme level. Within each programme, public good activities were likely to be the subject of more government investment, while activities with more value to industry would be funded more heavily by private partners. All of the activities within a programme might not happen at once, and partners would come to a binding agreement about securing government and private investment over the life span of a programme.

Meat Industry Context

7. There have been a number of reports written over recent years that point to areas for improvement in the meat industry. The Riddet Institute's Call to Arms (2012) identified that food and beverage exports worth $25.3 billion FOB[4] were

3 https://www.mpi.govt.nz/document-vault/893 and https://www.mpi.govt.nz/document-vault/892

4 Free on board

converted to $140–200 billion of expenditure by overseas consumers. It recommended that New Zealand businesses should find ways to capture significantly more of this 6–8 fold increase in value. This reported noted that if around 25% were captured it would increase the FOB value of New Zealand's exports to $60 billion[5].

8. It also pointed to four key enablers:

- Develop transformational industry and Government leadership;
- Develop strong consumer-driven export marketing of branded consumer and ingredient products;
- Increase capability and skills of the agri-food industry and supporting industries; and
- Increase the amount and effectiveness of investment in innovation, research, development and extension supporting the agri-food industry.

9. An earlier MAF report[6] quoted McDermott et al (2008)'s identification of the critical drivers of instability for the sheep industry and commented that these same factors appeared to also apply to beef processing. These critical drivers were:

- Overcapacity within the processing sector;
- The seasonal nature of production;
- The regulatory environment, including:
- Quota allocation;
- Low barriers of entry into the processing industry;
- Lack of farmer investment in the processing industry;
- The dominance of spot market relationships between producers and processors.

10. The marbled grass-fed Wagyu (MGB) beef programme seeks to capture more value in the value chain as recommended in the Riddet Institute's "Call to Arms" as well as develop strong consumer-driven export marketing of branded consumer products, increase capability and skills in the sector and increase innovation and research and development. It also seeks to address some of issues identified by McDermott et al for example, the seasonal nature of production and the dominance of spot market relationships.

[5] Riddet Institute Call to Arms, 2012, page 22

[6] Meat : the future 2009 Opportunities and Challenges for the New Zealand Sheep Meat and Beef Sector, page 37.

Marbled grass-fed Wagyu beef PGP programme

11. The MGB PGP programme started in August 2012. It entails investment of $23 million over 7 years and is focused on positioning New Zealand beef at the premium end of international markets and delivering long-term economic benefits from producing and selling highly marbled grass-fed beef from Wagyu cross animals. The programme aims to:

- Develop a supply of well-marbled beef that consumers demand as a result of utilizing Wagyu genetics;
- Develop on farm management and feed systems to convert calves to quality beef animals with the meat characteristics that targeted consumers demand;
- Prove the potential value of Angus x Jersey cows to upgrade the beef industry;
- Develop Producer Groups capable of supplying the volumes of uniform quality animals for slaughter with the meat characteristics consumers demand; and
- Develop the marketing model and the human capability required to market directly to end users and to connect consumers to marbled grass-fed Wagyu beef.

Progress review

12. Sapere Research Group was engaged by MPI in February 2015 to provide an independent progress review of the marbled grass-fed beef PGP programme 30 months into its 7 year life span. This review is intended to provide the partners in the marbled grass-fed beef PGP programme with an independent assessment of how the programme is tracking towards its goals as set out in the original business plan, as modified from time to time by annual plans and whether the programme could be adjusted or improved. This report seeks to meet the terms of the review contract dated 4 March 2015.

Objectives of the review

13. The key objectives of the progress review are to:

- Review progress made in each of the four projects and make any recommendations as to their future direction and funding priorities;
- Review project outputs to date and expected programme outcomes within the time frames established in the business plan (and as updated in the annual plans);
- Review internal and external factors affecting the programme including management and governance; and
- Review the likely benefits for New Zealand of the programme including commercial, economic and spillover benefits and how to maximise benefits.

Scope of the review

14. The progress review's scope includes:

- The management, governance, budgeting and reporting of the programme to date and going forward;
- Programme capability, resources, within the established funding of the programme;
- Any changes in strategic direction of the projects and their likely future direction; and
- Appropriateness of the proposed strategy for the integration of the dairy milestone.

15. Out of scope:

- Financial audit; and
- Review of the programme against PGP criteria.

16. The decision to invest in this PGP was also out of scope.

Review team

17. Sapere Research Limited provided the lead reviewers, Peter MacIntyre and David Moore. Caryll Shailer of Shailer Futures Ltd and Chris Garland of Baker Associates provided specific expertise to evaluate the processing, value chain and marketing aspects of the programme and the genetics and production research and development projects respectively.

Methodology

18. The review team reviewed information about the programme, including:

- The business plan (5 May 2012);
- Grass-fed Wagyu annual plans for 2012/13, 2013/14 and 2014/15 and the associated contract and its variations;
- Ten quarterly reports for the Programme Steering Group (PSG) and MPI from the first quarter of 2012/13 to the second quarter of 2014/15;
- Twelve PSG minutes from the inaugural meeting of 11th September, 2012 to the 27 February 2015 meeting;
- Outcome logic model;
- Sixteen science research reports starting from the report dated 18 October 2012 to that covering the period to 31 December 2014 as well as science reports on specific issues for example, analysis of the Firstlight (FL) data base and forage trails;
- The draft audit report titled "Primary Growth Partnership financial management : assurance on marbled grass fed beef partnership use of funding" February 2015;
- Business plans for the London and UAE markets but not the US market; and

- Risk register.

19. The team interviewed programme staff, contractors and the programme management team, the members of the Programme Steering Group, including representatives of Firstlight, Brownrigg Agriculture and the PGP Investment Advisory Panel (IAP). Discussions were also held with four Farmer Directors on the Firstlight Wagyu Producer Groups, in market Firstlight representatives in London and the UAE and On Farm Research which is involved in the genetics research. The review team also interviewed more widely to gain other perspectives of the MGB programme. The interviews were a range of face to face interviews and some done by telephone. Through this process the review team sought to understand the factors affecting the programme, its efficacy and identify possible opportunities for improvement.

20. The review team focused on the extent to which the programme is on track to deliver its short term outcomes for 2019. In the business plan these were as follows:

- A permanent increase in New Zealand's GDP by $24 Million by 2019;
- R&D capability increased in genetics, farm management, forages and new technologies;
- 180 farmers in a Producer Group farming 36,000 to 40,000 animals and producing 8600 tonnes of beef per annum;
- Network of International and NZ Markets supported by a Global Virtual Office; and
- Price premiums obtained of at least 50% above prime steer.

21. The review team also considered the changes to these short term outcomes made as a result of reforecasting in the 2014/15 business plan.

22. The review also assessed whether the programme is likely to meet its short term output 2019 targets which are:

- Systems developed to produce sufficient volumes of uniform, well-marbled beef to meet an expanding market demand;
- A stable, self-funding supply of cattle is supplied 52 weeks per year from at least 4 hubs within one Producer Group; and
- Market capability and support systems in place to underpin the sales and promotion of high quality NZ Beef in NZ plus 5 international markets.

23. Assessing these short term outcomes and output targets allowed us to gauge whether the medium and longer term outcomes were still likely to be within reach. We also examined whether there had been any problems with the original assumptions made about factors that would assist the programme such as:

- R&D capability in genetics and farming systems;
- Availability of Wagyu genetics from Brownrigg;
- Surplus dairy calves provide ability to scale up rapidly;
- Ability to go further faster with financial support of Government;

- Experience with venison and existing Wagyu producer groups;
- Partnership between genetics R&D, production, marketing and Government; and
- Market access capability proven by Go-Direct model in USA & Australasia.

24. The team also explored whether the metrics used to assess progress were suitable and whether the programme was adequately resourced to achieve its outcomes and outputs. It also considered whether priorities should be changed and resources reallocated to achieve more important outcomes and output targets while others could be given less priority or dropped. It also checked whether timelines were still achievable.

25. We also evaluated the management and governance of the programme to assess whether accountabilities and processes are clear and adhered too. External factors, such as material swings in related markets were also studied to see whether there have been changes that could materially affect the programme. Finally we assessed the extent to which spill over benefits were likely to be met as forecast.

Business plan

Marbled Grass-fed beef vision and objectives

26. In summary the vision set out in the business plan[7] for the marbled grass-fed beef PGP was to put New Zealand beef in a position where it was prized globally as a high quality, specialty 'centre of the plate' meat. "Foodies" were to actively seek it out because it was consistently tasty and tender and met aspirational consumer beliefs and lifestyles.

27. The business plan noted that achieving this would mean that the beef was produced by a burgeoning NZ beef industry, with motivated, forward-thinking farmers living in dynamic rural communities. Increasing numbers of farmers would be joining new Producer Groups. The links between farmers and consumers would be improved with farmers enjoying price premiums via transparent value chains and greater and more stable revenues and profits.

28. This was to be achieved by providing large volumes of marbled grass-fed beef derived from Wagyu cross animals continuously from the integration of the dairy and beef sectors. Surplus calves from dairy matings to high-marbling Wagyu sires were to have given beef rearers and finishers a valuable resource. The business plan also stated that the programme would also help to solve animal welfare issues so that New Zealand beef would be known as safe and ethically produced.

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7 Business plan titled "Marbled Grass-Fed Beef: Developing High Value Marbled Grass-Fed Beef from Integrated Dairy and Beef Supply Chains", 2012, Brownrigg Agriculture Limited and Firstlight Foods Limited

Key challenges

29. The business plan identified four key challenges:

- Identifying a source of sufficient numbers of breeding cows to meet expected demand;
- Identifying the genetics in Wagyu sires most suited to producing offspring with good marbling, and growth rates;
- Developing the feeding and farming practices required to ensure farmers were able to produce quality animals that the market demands on a continuous basis; and
- Developing the logistics and marketing infrastructure required to support a premium product in key markets.

Key enablers listed in the business plan

30. The business plan pinpointed five catalysts which when combined would enable this programme to succeed. These were:

- Access to high quality, high marbling Wagyu genetics from Brownrigg Agriculture;
- The development by Firstlight Foods of markets for quality grass-fed beef from Wagyu cross cattle, achieving prices significantly above other prime beef;
- The ability to access large numbers of calves from the New Zealand dairy sector, which were surplus to requirements;
- The use of Angus x Jersey cows to improve the efficiency and profitability of beef production; and
- The proven performance of Firstlight's integrated supply chains.

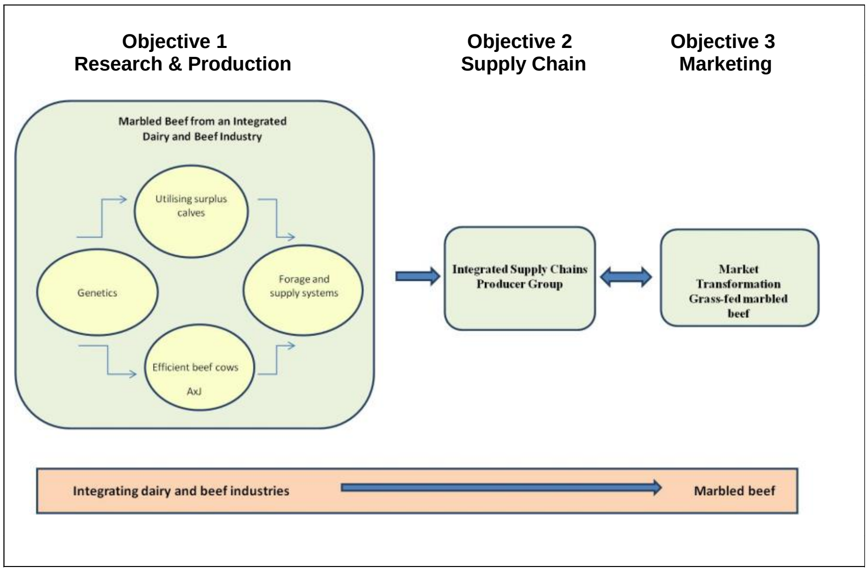
Additionality

31. As discussed in the Introduction, the Cabinet Paper that initiated the PGP programme required that PGP investments would be aligned with, but additional to, existing initiatives and work programmes; that is, beyond business as usual[8]. The programme was originally set up as shown in Figure 1.

8 www.mpi.govt.nz/document-vault/893 and www.mpi.govt.nz/document-vault/892

Business plan diagram of MGB Programme

Figure 1 Objectives of Marbled Grass-fed Beef PGP Programme



Source: Business Plan

32. The business plan explained[9] that for Objective 1 (current Objective 1 and 4) co-investor and funding from government/MPI would only be allowed where it met costs associated with research (investigating and developing concepts in a focused manner) which were unlikely to be undertaken without this financial support. PGP funding would therefore allow relatively high risk level concepts such as sexed semen to be tested. These tests would involve a series of stop/go points and evaluate concepts that had the potential to provide a large step up in productivity and financial returns. The standard or "business as usual" costs of farming the animals (purchase, rearing, animal health) would not be included in the programme's budget.

33. Objective 2 PGP funding was to be used to establish science-based studies and technology transfer within the Producer Groups. These activities would centre on focus farms selected from shareholder properties on which research trials would be conducted. These trials would be additional to and complementary to the work conducted by On-Farm Research in Objective 1.

34. The business plan also explained that for objective 3 MPI PGP funding would support only the more generic activities planned that would lift the market perception and visibility of New Zealand beef in general. The business plan[10] explained that this work might also benefit other New Zealand food and beverage sectors through promoting of New Zealand as an innovative and safe producer of quality products. The MGB programme was therefore to seek to work with other premium New Zealand brands to ensure that the returns on

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9 Business plan, page 8

10 Business plan, page 41

their activities to NZ as a whole were compounded. Any utilisation of Government funding in this area would be limited to non-branded, generic marketing and promotion only. The Government contribution to establishing the Ambassador programme would be limited to pre-market costs, including employment and induction costs.

Spill over and capability effects

35. As listed in the business plan[11] the spill over effects being sought from the MGB programme were:

- Improved New Zealand product image;
- Animal welfare – provide an outlet for some of the very young calves currently euthanized on farm and reduce the welfare concerns associated with this practice;
- Encourage calf rearers to remain in the industry rather than to be continuously losing experienced people;
- Improve the stability of rural communities by increasing farm profitability, particularly in remote hill country areas;
- Provide financially viable alternatives to land that is marginal for dairying but currently is being pressed in that direction due to the lack of alternatives;
- Infrastructural benefits associated with improved profitability - transport companies, feed companies, calf milk companies, contractors as likely to utilise a range of forage crops, better plant utilisation;
- Benefits to dairy farmers with improved calf prices and reduced welfare issues with fewer low value calves to be disposed of;
- Financial viability for beef farmers, encouraging new entrants to the industry as well as retention of existing skills; and
- Increased human capability throughout the value chain, particularly in terms of science and technology interventions for effective/efficient farming practice; IT capability to enhance SME businesses addressing dispersed markets, and building high value businesses based on high quality products and brand.

36. Capability effects were listed in the first contract and subsequent variations as:

- Improved, more efficient breeding practices;
- Development of a specialised ex-dairy calf rearing industry;
- Improved beef industry management of fat colour;
- Farm systems management guidelines available to support year round supply of beef;
- Increased skills in cattle transport and beef processing facilities; and

[11] Business plan, page 50

- Development of excellent farmers who support natural production and animal welfare.

Progress in achieving programme outcomes

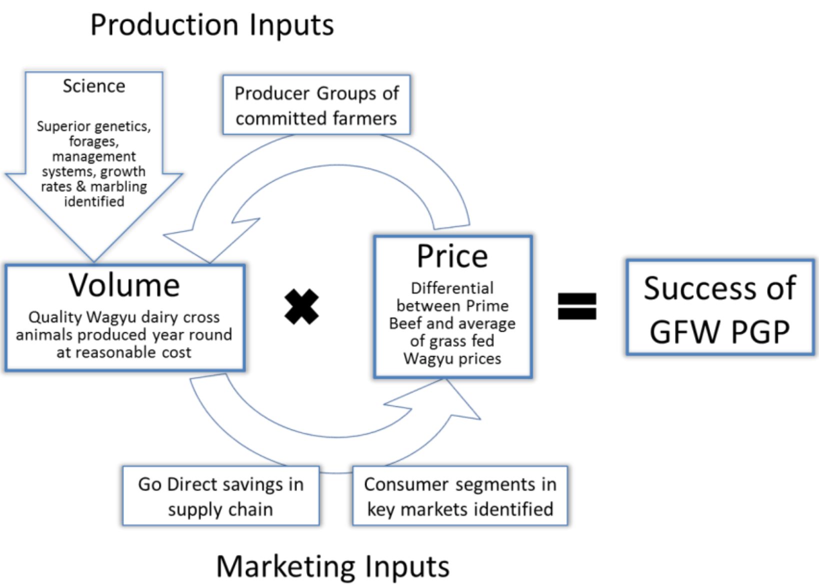
Business Plan Objectives

37. During a discussion in 2013 the PSG agreed that the over-riding risk to the MGB PGP was the commercial risk that on farm costs may be higher than expected, and/or that the market could not sustain the pricing required[12]. The review team agree that these are two of the essential factors that are likely to determine the success or otherwise of the MGB programme.

38. The MGB programme faces a classic "the chicken or the egg" causality dilemma. It needs enough farmer shareholders using the science developed as part of the programme to produce enough grass-fed Wagyu cross beef to sell. To attract these farmers, the programme must open markets with customers who value this grass-fed Wagyu more highly than other food options. The farmers and marketers will then get sufficient return to justify raising and selling Wagyu relative to other options.

39. The key factors are illustrated Figure 2 in below.

Figure 2 Key Performance Indicators in Grass-Fed Wagyu Programme



Source: Sapere

12 PSG minutes of 30 July 2013 Page 5

40. Most of the net benefits forecast in the business plan centre on these key factors[13].

Price

41. The business plan's key assumptions about price were:

- Average Wagyu returns to farmers, based on contracts in place in 2012); and
- Annual average return for prime beef in 2011 was $4.20/kg ($1,235/head).

42. To this set of base prices the MGB programme was expected to bring:

- Increased returns from the Go Direct marketing model, new markets and adding value to lower value cuts; and
- A further premium from better genetics and feeding systems to increase marbling More certainty and reduced risk from growing a strong well defined supply chain marketing a high quality niche product (no specific incremental value was specified).

43. This would result in lifting forecast returns. The outcome logic model captured this via a short term outcomes for MGB by 2019 of "*Price premiums obtained of at least 50% above prime steer*"[14].

44. Angus and Jersey cross animals were assumed in the business plan to provide an extra benefit based on farmers carrying more of these animals resulting in an increase in overall return per animal.

Costs

45. The business plan noted that Wagyu cross cattle have slower growth rates than traditional beef animals and are higher cost to produce and finish[15]. This therefore reduced the expected net extra return compared to 2011 prime beef average prices. These costs were deducted from average market returns. However, it was not clear how these were calculated.

46. In addition, the business plan explained that to incentivise dairy farmers to AI with Wagyu semen, a premium would be required for 4 day old calves. A premium for calf rearers would also be needed to encourage them to rear Wagyu x calves. This would lower the gross return to the Producer Group compared to prime beef. This approach was assumed to allow the programme to secure the calves required to enter the system in 2019.

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13 The business plan listed the key drivers as expected overall industry returns, returns to sales and marketing, market premiums for Wagyu cross beef, additional production costs and value from upgrading the national beef herd with Angus Jersey cross animals. Projected benefits page 43

14 $2.12/$4.20 ≈ 50 percent

15 Business plan page 44

47. Farmers of Angus x Jersey beef herds who were crossing with Wagyu bulls were assumed to retain calves on their dams through to weaning. These farmers would rear these animals themselves.

Volume

48. The business plan assumed 32,500 Wagyu cross animals processed in 2019. This would expand to a number of Wagyu cross animals which represents around 20 percent of the current beef cattle population of New Zealand in 2028.

49. These animals were to be produced by 180 farmers who were targeted to have joined 3 producer groups by the project's end in 2019[16].

50. The 2014/15 annual plan changed the target of 32,500 Wagyu cross animals processed in 2019, an important volume goal, to "*180 farmers in 3 Producer Groups by 2019 finishing 15,000 high quality grass-fed cattle per year*". This was significantly below the business case target and the subsequent contract targets.

51. This change in volume target in the 2014/15 annual plan was not considered to have been significant and therefore the Director General of MPI was not required to sign off on the change[17]. We were told that this was because the target of a permanent increase in New Zealand's GDP $200 million by 2029 was agreed as still achievable. We did not locate any formal analysis documenting the rationale for this. However the original contract's aspirational and non-binding goal of $24 million of GDP per annum by 2019 was amended downwards to $10 million. The 2014/15 annual plan also noted that economic outcomes forecast for 2019 would be delayed by approximately two years due to the reduced numbers of Wagyu x dairy animals in the production pipeline and available for slaughter in 2018/19[18].

52. Earlier there were references to 'high quality marbled beef' but that has changed to 'high quality grass-fed cattle'. This makes this key performance indicator (KPI) somewhat ambiguous, in that practically all cattle in New Zealand are grass-fed and it is unclear what 'high quality cattle' actually are. The 2014/15 annual plan resulted in more than halving of the original volume targets. We did not locate a clear description of the reason for this change. However, a number of interviewees related that the original forecasts were over optimistic and those making the forecasts lacked experience in the practicalities of large scale stock expansion programmes. Detail on the effect of this drop in forecast volume on original programme deliverables has not yet been investigated sufficiently in our view. It will be challenging to achieve the increasing rate of growth required to be running 36,000 animals and slaughtering 15,000 in 2019 (Since this report was penned the fall in the dairy pay-out has greatly increased interest in crossing with Wagyu so forecasts have improved markedly). However, the 2016/17 business

[16] Business plan, page 4

[17] See discussion in PSG Minutes 27 January 2014, pages 3 & 4

[18] 2014/15 annual plan, page 3

planning round should involve a thorough re-evaluation of forecast MGB production and net economic benefits from now to 2019 and onto 2028.

53. The reporting of volume metrics in the 2014/15 quarterly reports are useful and should be continued for example:

- Calf numbers animal matings planned vs actual;
- Calf numbers, matings by method planned vs actual;
- Animal numbers planned vs actual; and
- Annual animals processed planned vs actual.

54. Further granularity might also be of use in this critical phase of the programme. It therefore might be worth considering breaking out forecast and actual running totals of calves, yearlings, two year olds and three year olds in the 2015/16 annual plan and quarterly reports. This should be possible particularly with Netsuite fully implemented (see discussion of Virtual Global Office under Objective 3 marketing). This would allow the PSG to easily keep tabs on progress of animals through the supply chain given the importance of killing age to the economics of the MGB operation for farmers. It would also provide the basis for a reasonable estimate of the volume of MGB expected to be available for sale each month/quarter to underpin marketing initiatives.

Returns

55. The MGB quarterly reports have consistently included measures of relative prices. The review team agree with a number of interviewees that the incremental price of Wagyu over prime beef is the key metric to the long term success of this programme. The targets in the current contract might be aspirational and non-binding but farmers will need to see a return from producing volumes of MGB that beat their other farming options such as prime steer or bull beef.

56. The price differential against the "spot market" will be a critical factor in the uptake of Wagyu finishing by beef farmers. A perception of gain may be enough to keep the programme running at the outset but in the long run the gain must be achieved. (Firstlight Wagyu) FLW recognises that this price differential has to compensate for the slower growth rates and higher costs structures of finishing Wagyu, the reduced flexibility for farmers in when they can market their stock, due to the commitment for 12-month supply, and the need for an incentive to "try something different". The question is whether the product volume available to sell can support this level of pricing at this critical uptake phase.

57. The price of prime beef is probably the best measure of an alternative for farmers although currently for many farmers bull beef margins or the regular cash flow of dairy support grazing are attractive. While short term prices can be expected to vary, Wagyu must earn a premium over time. Achieving the targeted volume of sales is also critical to FLF's return from this programme.

58. The price targets in the current contract could be updated. It may also be worth revisiting the base prices to ensure they are a fair starting point for monitoring the financial success of the programme.

59. The programme's highest medium to long term priority should be to maintain the original increment (or revised number) of Wagyu returns over prime beef and achieve the extra value that the MGB programme estimated that it could bring. Wagyu returns and prime beef prices have fluctuated significantly over the time the MGB programme has been running. This has caused concern recently as the price differential was zero in the week to 1 December 2014.

60. We believe that an absolute value in dollars per kg more than prime beef would be a better aspirational and non-binding target than the current absolute target. The programme should endeavour to achieve this by 2019, sooner if possible.

61. We also believe that an updated target of an absolute value in dollars per kg more than prime beef is probably a better target than the outcome logic model target of 50 percent more than prime beef because a percentage target will scale up and down with the prime beef price. It is probably not reasonable to expect the increment for Wagyu cross beef to scale upwards just because the prime beef price might rise to a high level or the reverse should the prime beef price fall. An absolute value would not be subject to this effect.

62. It may be worth exploring other ways of monitoring progress against the 2019 target value over the price of prime beef. Currently a volatile weekly prices series is used. Adding some type of smoothed time series is probably more in keeping with the long term contracting and certainty objectives of the programme.

63. The target communicated to farmers needs to be transparent and consistent over time about where the extra value is expected to come from, what has been achieved to date and what will be achieved by 2019. We note that the weekly data used to derive the price targets has unexplained gaps e.g. one data point for August and October 2013 while there were 4 for September 2013. We recommend a careful review of this data.

64. Ultimately the programme will succeed if it can continue to build this incremental value by providing branded differentiated product that customers are willing to pay a premium for.

Net returns objectives

65. One of the net return business plan objectives does not appear to be explicitly monitored in programme reporting. In addition, it was not clear how the extra Wagyu costs were calculated. In reality each farmer will face their own unique costs due to running Wagyu cross animals. If this average net value cannot be replicated or monitored perhaps this target should be dropped.

Firstlight Foods (FLF) benefit

66. The business plan[19] noted that to maximise the value of the Wagyu produced, the higher-end cuts would be sold via a direct marketing system, Go Direct, in which Firstlight employed product ambassadors within each market. New Zealand and five new pioneer markets would be supported by a global office network, sharing information along the value chain, and linking all participants in all markets, production, and processing bases.

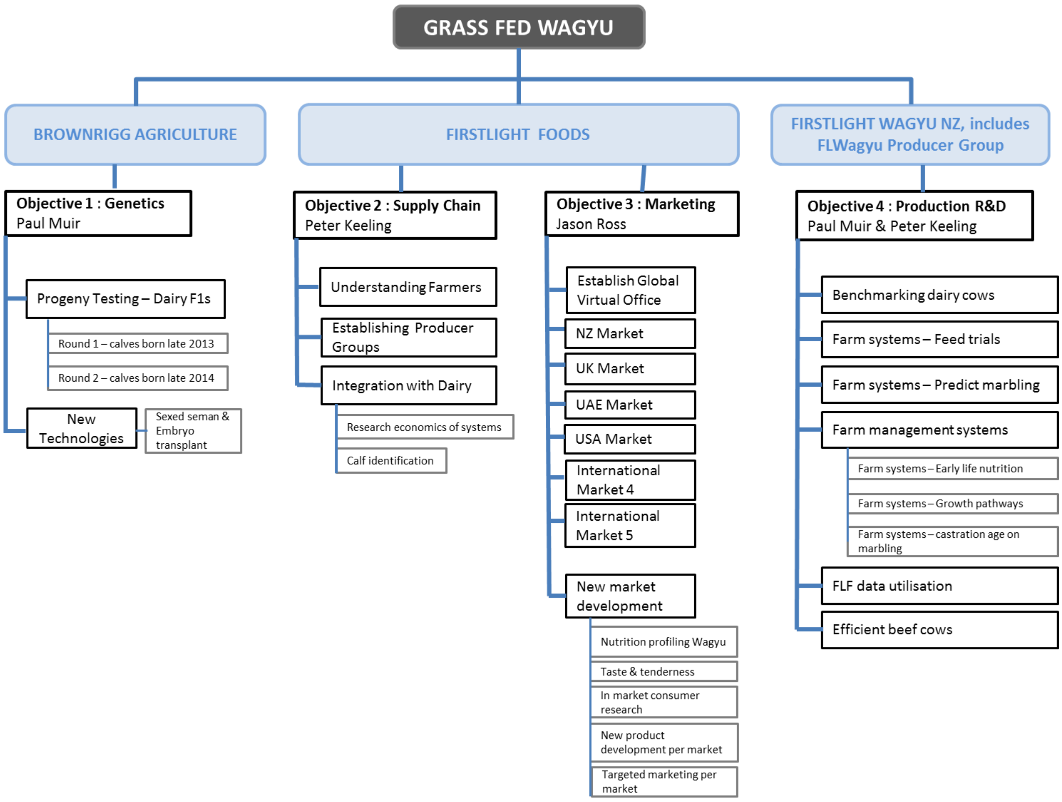
67. Beyond 2019 commission income on sales of the original volume target of 32,500 animals was assumed to recompense FLF for setting up the Go Direct marketing approach. As the 2019 target kill volume was decreased to 15,000, FLF's expected returns will have also fallen. The impact of this for FLF itself and any flow on effects on market development activities has not been documented. We suggest that this matter be reviewed and an update provided in the 2015/16 annual plan.

Programme Objectives

68. Figure 3 sets out the current structure of the MGB programme showing the relevant milestone headings under each objective.

[19] Business plan page 4

Figure 3 Programme Objectives



Source: Wagyu PGP

Objective 1 : Genetics

69. Objective 1 as set out in the business plan was designed to identify the best available genetics for economically producing large volumes of marbled beef from New Zealand grass finishing systems. Wagyu genetics were stated as key to this objective. These need to be tested across dairy cows to see if their progeny can give the required marbling and other attributes.

70. This outcome is managed by On-Farm Research Ltd led by Paul Muir.

Milestones

71. This objective is comprised of two milestones:

> **1.1.1 Identification of the best genetics for marbling in grass-fed beef**
>
> This milestone is designed to identify the best genetics in Wagyu for crossing with dairy cattle to produce high growth rates and marbling in pasture fed cattle. This will involve carrying out a large scale progeny test as well as utilising new tools being developed in genomics. This will allow the selection of the breeding bulls based on objective scientific data and a long term breeding programme

positioned to take advantage of new and emerging technologies. In addition this objective will evaluate the potential to use sexed semen and embryo technologies to produce calves of the more valued sex – e.g.stud bull calves for beef.

1.1.2 Application of new and developing technologies to the beef and dairy industry.

This involves the rapid multiplication to accelerate the build-up of the best Wagyu genetics for crossing with the dairy industry through the use of sexed semen and embryo transfer.

Sexed semen is needed because the Wagyu Grass fed Programme will require a dramatic increase in the number of stud bulls available to the dairy industry to achieve matings required, therefore there is an need for rapid bull multiplication. Sexed semen has the potential to increase the number of calves of the desired gender..

Embryo transfer for bull multiplication will allow more calves to be produced from top bulls and cows.

Analysis

72. The programme has found that the best use of the sexed semen technology would be the potential to multiply the best genetics of Wagyu stud bulls. This would assist in making crossing with Wagyu more acceptable to dairy farmers as the use of bulls across heifers in particular was viewed as more reliable and convenient than AI.

73. The identification of the best Wagyu genetics is progressing well with enough calves to meet all progeny testing needs.

74. Lately new technology research has been focussed on using sexed semen in embryo transplants to rapidly multiply the numbers of high quality Wagyu bulls required for natural matings.

Review Comments

75. This objective appears to be making good progress and will help to build a useful base of information about the genetic value of Wagyu cross.

76. Some decisions could have been more clearly explained. We believe that it may be useful to gather all Stop/Go decisions in one document and ensure that the reasoning for the decisions, and any caveats are included.

77. The review team believes that it is important to keep pursuit of the original objective of using AI sexed semen under periodic review. This is because the ultimate model is for dairy farmers to be able to use Wagyu AI at the same time

as their normal AI mating (to mitigate having to extend the AI mating period), and thus overcome the problems of calf identification and extended gestation affecting milking performance.

Objective 2 : Supply Chain

78. The business plan stated that the intention was that the grass-fed beef supply chain was fully integrated with all participants having an interest in ensuring the product matched market specifications. Farmers would rely on each other as each producer group was responsible for supplying to a regular slaughter schedule.

79. Later plans describe this outcome as designed to result in a stable supply of well-finished cattle and central to Firstlight's ability to re-position New Zealand beef as a premium product. These plans also note the outcome would facilitate a 52-week supply of quality cattle by developing the knowledge and systems required to integrate with the dairy industry to utilise its spare capacity, and to gain farmer buy-in to working together as collaborative Producer Groups (PGs) growing Wagyu cross beef.

80. The latest plan states that by June 2019 one overall Producer Group consisting of three Producer Group Units, each led by a Producer Group Unit Manager, and each containing three regional hubs, with each hub consisting of 20 farms (1 Producer Group, 3 Units and 9 Hubs) would be achieved. 180 farms involved in Producer Groups would farm 36,000-40,000 cattle per year, and process 15,000 cattle per year to meet market demand.

81. This outcome is led by Peter Keeling.

Milestones

82. This objective is comprised of three milestones:

2.1.1 Understanding farmers

The aim of this project is to understand farmer motivations and identify and mitigate barriers for farmer participation in a Producer Group structure.

2.2.1 Producer Group establishment and operations

This project will establish three Producer Group Units for grass-fed marbled beef based on the 'best practice' principles identified through this programme and previous experience.

2.3.1 Integration with the Dairy Industry

This project will establish relationships and supply contracts with the dairy industry to ensure sufficient Wagyu x Dairy calves are sourced from the industry each year from 2014 to meet forecast market demand.

In addition to sourcing the animals required from the dairy industry, the project will also identify management techniques required to rear calves effectively, to transition them from rearers to pasture, and to successfully manage them over their first summer on farm.

Analysis

Understanding Farmers

83. To date this milestone has delivered a draft producer group "how to" manual which sets out the optimal structural, operational aspects and provides recommendations for best practice. In addition, industry best practice for prime steer beef backgrounding and finishing operations have been defined so that farmer performance can be benchmarked against agreed KPIs.

84. A key early change in the programme was the inclusion of the PGs as co-investors[20]. This resulted in changing the structure of the programme from that shown in Figure 1 to that shown in Figure 3.

85. A survey into the quality of FLF's relationships with its producer group customers compared to industry averages has also been carried out by Lincoln University. This survey provided valuable insights into the views of farmers in the Wagyu PG relative to other farmer groups.

Review Comments

86. We recommend keeping the "how to" manuals as "alive" as possible by seeking feedback on how useful they are and amending where improvements identified either by farmer responses or through quarterly Producer Group meetings. This might be achieved partially on-line depending on the media that best suits Producer Group members.

87. While there are positive results from this survey it should be noted that many of those interviewed will have recently signed up as suppliers. There could therefore be some halo effect underwriting their attitude towards the MGB programme.

88. We believe that it may be worthwhile considering further investigation of the Wagyu Producer Group members views on the risks and benefits of the programme.

[20] PSG minutes 25 February 2013, page 7

Establishing Producer Groups

89. Recent reporting has noted that there had been steady growth in suppliers/contractors across the animal supply chain with a total of 145 farms by the end of December 2014 The number of shareholder farms has risen this year driven by the timing of pool payments made for stock processed in the year to the end of March 2015.

Review Comments

90. It appears to have proven significantly more difficult to gain shareholders although potential PG shareholders and contractors are providing additional suppliers. The majority of suppliers appear to remain cautious about the MGB programme and whether they would necessarily get an adequate return for becoming shareholders.

91. Recent reporting has stated that hub meetings had been generally very positive but there were variations to this overall attitude which depended on when farmers were supplying or buying cattle compared to the open market price. This supports the view that farmers are focused on the relative value of MGB compared to alternatives like the spot price of prime steer rather than absolute prices.

92. We suspect that there is potential to target specific geographical areas when seeking rearer/shareholder buy-in. Because of the requirement for year-round supply and consistent growing conditions, regions such as north Taranaki, King Country, north Waikato and Bay of Plenty are logical target areas. These are also regions where there is already an accepted "interface" between dairy and dry stock systems. Wagyu finishing operations could be pitched as an alternative to dairy heifer grazing, provided that the margin can be proven to cover not only the longer finishing cycle, but also the capital required to own the animal.

Integration with Dairy : the New Sub-Objective

93. The business plan assumed that to incentivise dairy farmers to utilise Wagyu semen in their AI programme, a premium would be required to be paid to farmers for 4 day old calves. That pricing information dates back to the inception of the project and we therefore suggest that it would be useful to update this information during the preparation of the 2015/16 annual plan.

94. About two years into the programme the mismatch between the priorities of most dairy farmers and the MGB programme's objectives and expectations about potential dairy farmer interest in crossing with Wagyu became a major focus. The 2014/15 annual plan therefore included a new intermediate outcome objective (Integration with the Dairy Industry) recognising how critical the sourcing of Wagyu dairy cross calves was to the success of the overall programme. Its targets were designed to significantly raise the numbers of matings and Wagyu dairy cross calves entering the programme.

95. The MGB programme has acknowledged that dairy farmers haven't been keen to cross their cows with Wagyu due to:

- The priority they give to milk production, and
- Secondly the priority they give to environmental issues e.g. effluent discharge.

96. Various programme documents and review team interviews have also identified that dairy farmers are also concerned about crossing their cows with Wagyu because of:

- The risk of loss of income should poor conception rates result in missing a mating cycle and therefore lead them to forego milk production estimated at $240 per cow[21]. Dairy farmers therefore tend to prefer the surer Wagyu natural mating option for their heifers or low breeding worth cows over AI with its lower conception rates. Currently, the availability of Wagyu bulls is the limiting factor in this option;
- The risk of calving difficulties despite Wagyu calves often being smaller than other options. (There is a legacy of dystocia and attendant impacts on long term productivity (post caesarean in particular) resulting from crossing with beef breeds in the past such as Charolais, Belgian Blue, Simmental, South Devon and Blonde d'Aquitaine);
- The potential consequences of longer gestation periods (seen as a greater problem with cows than heifers but resulting in less potential milk production. Dairy farmers are looking for shorter gestation and Wagyu are seen as longer gestation);
- The risks of increased workload at a busy time of year. Dairy farmers are generally reluctant to extend their AI mating period any further than they absolutely have to due to the additional workload arising from heat detection and managing the AI process;
- A perception of higher cost/risk of Wagyu bulls and . higher AI costs;
- Identification issues with Wagyu dairy cross calves and kiwi calves. This can be managed better if it is possible to have separate herds dedicated to Wagyu cross or animals are identified from mating to be carrying Wagyu which is possible on smaller farms. In the future, Wagyu may be able to be mated simultaneously with replacement bull genetics if viable sexed Wagyu semen and low-cost genetic identification techniques become available;
- Logistics issues around sourcing and storing Wagyu semen;
- Low-performing herds from which no replacements are bred are a logical target for Wagyu mating, but there is a higher "wastage" of calves from mating to birth, due to a higher proportion of these cows being culled by the end of the season or sold out of the herd and lower conception rates;
- Lower-order sharemilkers are often not well incentivised to rear extra calves. While they are compensated for additional time they generally do not participate in any share of a higher margin that the calves might be sold for; and
- There is a perception that Wagyu calves appear to be less vigorous after birth and are slower to get on to feeding systems.

21 This value is likely to have fallen recently with the lower dairy pay-out

97. It would appear that concerns about calf wastage and welfare that may have contributed to the IAP and MPI interest in the MGB programme is a lower priority for most dairy farmers compared to the issues listed above.

98. The programme is putting significant resources into solving or managing these issues.

Review Comments

99. There needs to be a concerted effort to improve the timeliness, processing, storage and handling of Wagyu semen to ensure a comparable or better service for dairy farmers than alternatives. It may also be advisable for Firstlight to consider a single contact person for Wagyu semen order management to reduce the potential for misunderstanding in this important aspect of this sub-objective.

100. The review team recommend targeting autumn mating because these farms often still source their replacements from spring-calving cows and are therefore more inclined to use non-replacement bull sources.

101. We support the approach of targeting larger dairying operations that run separate "cull" herds from which they source no replacements. These farms are a first priority. As a second priority we support the targeting of smaller (<400) cow herds because these are more likely to be farmed by owner-operators, or at least staff who are more acquainted with their cows and are more likely to be incentivised for higher-value calves and more likely to get the heat detection right.

102. We recommend targeting 15-month heifer mating using natural mating to Wagyu bulls. These heifers are primarily naturally mated anyway, so would not face the resistance that extended AI programmes do. In addition, calf identification may be easier as these heifers would probably be calved as a separate herd.

103. While the dairy pay-out is low, there is an opportunity to influence dairy farmers to add value to calves. If a critical mass of dairy farmers can be influenced before the pay-out recovers, and farmers become solely focused on milk production again, this group of farmers could constitute a "testimonial" group that can be leveraged off.

104. Significant effort has gone into addressing animal welfare over recent years[22] and the Animal Welfare Amendment Bill, about to receive royal assent[23], is designed, amongst other things, to allow regulations to protect animal welfare such as the welfare of bobby calves. Dairy NZ also has publications covering humane slaughter and a Dairy Cattle Code of Welfare which sits under the current Animal Welfare Act 1999. This code was amended in 2014 to ban the use of blunt force trauma as a way of euthanizing calves.

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22 DairyNZ publications on bobby calves, including welfare requirements should a calf need to be euthanized on farm. http://www.dairynz.co.nz/animal/calves-and-young-stock/bobby-calves/ . This includes information sources such as bobby calf best practice guidelines, why care about your bobby calves brochure, DairyNZ farmfact: dead stock disposal (3-16) and bobby calf welfare information pack.

23 www.national.org.nz/news/news/media-releases/detail/2015/05/05/animal-welfare-amendment-bill-passes-final-reading

105. In this context we believe that the MGB programme should continue to look for ways to promote crossing with Wagyu as a way of adding value to calves which should lower the pressure on dairy farmers to euthanize unwanted calves. We also wonder whether there might be potential for MPI to assist in brokering these discussions.

106. The programme has put in place a communications plan on the dairy integration which covers the mass media options, but there also needs to be an initiative to provide dairy farmers opportunities to physically engage with Wagyu breeding and Wagyu rearing systems. Farmers are generally kinaesthetic learners. They convince themselves by seeing, touching and feeling new ideas. The same applies to convincing beef farmers to become rearers/finishers. This will be achieved most effectively by holding meetings of small groups of dairy farmers where not only the production and financial attributes of the business are promoted, but also the philosophical merit of the supply chain ownership model.

107. The review team believes that there could be some merit in approaching Dairy NZ again to raise its awareness of the MGB programme. The value of such an initiative would depend on a number of factors but there may also be potential for MPI to facilitate this.

108. There needs to be a concerted effort to multiply up the number of commercial Wagyu bulls that can be made available to the industry. The provision of enough bulls for live matings is of high priority.

Objective 3 : Marketing

109. This objective aims to provide stable demand in the market for MGB beef with the business case describing the aim as having juicy, tender and tasty chilled beef available 52 weeks of the year.

110. The 'Go-Direct' model is a key plank in Firstlight's strategy to build this stable demand. The Go Direct strategy aims to replace roles in the current meat exporting value chain. Firstlight explained that as it set up Go-direct entities it was developing the functions of a sophisticated in market wholesale distribution business. In addition to these functional aspects of importing, warehousing, distributing and administration, Go-direct was a consumer facing business model, developing products and brands based on deep consumer insight. Go Direct has been described as building relationships with end users whether chef, retail buyer, butcher, caterer or individual. This model is stated as operating in New Zealand and was planned for the five international locations.

111. By the end of 2019, the programme expected to be conducting direct selling activities in 5 pioneer markets. To support this distributed structure, Firstlight would establish efficient and effective systems for sharing logistics, inventory and market information.

112. This outcome is led by Jason Ross.

113. This objective is comprised of seven milestones[24]:

> **3.1.1 Establishment of a global virtual office**
>
> A 'virtual office' will be developed that will link all levels of the value chain to achieve product traceability, seamless stock control and logistics for timely order fulfilment, and market feedback for product assurance and upgrading/customising decisions.

> **3.2.1 New Zealand market positioning**
>
> This milestone will support the roll-out of a prototype Ambassador programme to develop the New Zealand domestic market for marbled beef. This milestone is fully funded by the industry partner.

> **International Markets : 3.3.1 London, 3.4.1 UAE, 3.5.1 USA, 3.6.1 International Market 4, 3.7.1 International Market 5 & 3.8.1 New Market Development**
>
> These milestones will support the roll-out of a prototype Go Direct programme to develop these markets for marbled beef.

Analysis

114. The Go Direct approach used in the New Zealand market is the model for all the international markets that are to be developed as part of the MGB programme. The UK market was the first international market approved for development under the MGB programme. London was the first due to FLF resources already devoted to that market and the potential to find synergies with FLF's venison business. The second market to be developed was Dubai as an interested New Zealander was identified who could assist. The third market is currently being considered for launch. Asia remains a target in the longer term but tariffs, plant accreditation, and a lack of perception of grass fed premium beef make these markets more challenging.

115. The business plan made the point that beef with greater amounts of marbling was priced at a premium because the fat in the muscle conferred succulence, tenderness and flavour to the meat. The well-recognised USDA beef grading system graded US table beef into 3 categories - USDA Prime, USDA Choice and

24 Refer to annual plans

USDA Select. 'USDA Prime' contained three times the amount of marbled fat of USDA Select and sold for a premium of around 90%.

116. The MGB programme's view of the traditional international beef sales model is that this typically involved selling product in container-loads at CIF[25] price to an importer, who then sells through to master and smaller distributors. In addition, retailers generally receive a 40 percent margin to compensate them for the work and risk involved in providing shelf space for a perishable product. The business plan also pointed out that another 20 percent of the retail price is typically retained by the importer, master distributor and regional distributor.

117. The Go Direct approach would seek to maintain the existing final sales prices but aim to capture a material percent of product margin through FLF taking the role of importer and master distributor and by reducing retail margins on account of assisting with promotional support and minimising product wastage and risk for the retailer. Net of costs, this would provide a worthwhile percentage of the final sales value to the MGB programme.

118. Appendix 2 contains a summary of global food retail trends drawn from OECD analyses and other sources. It describes the growing market power in retailing in many markets and the increasingly integrated protein product supply chains. Against this backdrop, it is clear that there are some hurdles to overcome when implementing the Go Direct programme. It is therefore likely to be an incremental process and would only be achieved if the MGB programme built a market position where branded Firstlight Wagyu was in high demand from consumers and was strongly differentiated. At this point the programme has only started the activities required to potentially achieving the goal. While Go Direct entities have replaced master distributers and importers in the programme's target markets, displacing some of the value that retailers currently enjoy is work in progress and is likely to be achieved only when Firstlight MGB product and brand has built material in market cachet. The current plan is to be conducting direct selling activities in 5 pioneer markets by the end of 2019. This may mean that by 2019 FLF is planning to be selling directly to consumers from its own in market wholesale distribution businesses in 5 markets but capturing the planned percentage of the final value of products including some of the retailers' average margin might be still some way off.

119. Given this, we believe that it would be helpful to ensure that "Go Direct" model is fully described and the steps to achieving its goals by 2019 are explained in key MGB programme documentation, e.g. the 2015/16 annual plan. Optimally, this should also describe when the additional value is anticipated to be captured; along with any relevant weigh-points where progress can be measured.

120. We understood that the MGB PGP focused on specific initiatives related to marbled grass-fed Wagyu cross beef. This isn't clear in all documents with there also being references to "*New Zealand-produced grass-fed beef*". We suggest that one definition is used in 2015/16 annual plan specifying what this programme is seeking to produce. We suggest marbled grass-fed Wagyu cross beef (MGB).

[25] Cost, insurance and freight

We note that the term '*high quality beef*' is a defined product term in international trade and attaching this term to products such as burger patties and sausages will not meet that definition.

121. There have been a number of changes made to objectives and milestones in annual plans and new objectives and milestones introduced. The rationale for these various changes has not always been recorded so it has not been possible to determine whether some changes have had a significant effect on the programme, the outcomes or the outputs.

122. Whilst we can appreciate that re-using milestone numbering might appear administratively logical, it creates a further layer of complexity for anyone reviewing the programme. Cross referencing to quarterly reports or PSG minutes becomes particularly challenging. A reviewer must have the correct milestone to hand in order to check any reporting and that can be made more difficult if references to milestones are not precise about the time period they refer to. We recommend that milestone numbers are not re-used. Further, that a decision taken in respect of each milestone that is completed or deleted from an annual plan be formally recorded against it and retained in each contract to provide a time sequence to follow.

123. We recommend that charts be provided in the quarterly reports that show not only actual and forecast sales and volume for each market but also an average price time series and an appropriate margin time series such as NPBT. This would provide an improved and quicker way for PSG and IAP members to monitor progress against these sorts of common but critical KPIs at an appropriately aggregated level. As the current actual and forecast sales and volumes charts have now, all these charts should have accompanying key commentary points to explain any major new trends.

124. Given the significant reduction in targeted kill of 15,000 animals by 2019, we believe that it may be advantageous for the PSG to consider concentrating resources in the short term into effectively accessing and developing current markets. Concentrating resources on these markets could increase the chances of long run success, avoid stretching FLF resources too thinly and better ensure that supply meets consumer demand in the four existing markets.

125. Further, as the marketing programme has evolved a segmentation of product offerings has emerged, some market specific and others product specific. We appreciate that all MGB product needs to be sold and the maximum value extracted; however, for the purposes of this PGP we encourage the PSG to consider whether structuring this objective by country is the most appropriate way to ensure that new pathways to market, particularly for the highest value products (high marbling score prime cuts) remains the focus. An alternative might be to structure this objective along the lines of the product segmentation already occurring. Reporting on initiatives related to volumes/value/market by, for example, prime cuts (MBS4-5 and above; MBS2-3; et al), value-added products (burger patties/sausages et al); and trim could be more informative/comprehensive. It would also provide clarity on where the maximum value can be extracted for each product segment (particularly when volumes are low) and which MGB products are best suited to each market

Establishment of a global virtual office

126. Reporting earlier in the programme set out the programmes needs for a new business information system. The system requirements were:

- Sales and marketing (inventory, sales orders, warehouse dispatch, marketing materials, forecasting, reporting and CRM); and
- Management (reporting and communication including file sharing).

127. NetSuite was selected.

128. Expected benefits of implementing this system were reported as:

- Information visible to geographically separated staff;
- Sales reporting versus budget by customer product and period;
- Margin reporting by customer;
- Improved product traceability and timely order fulfilment;
- Inventory age by carton;
- All information in a single database; and
- Systemized customer relationship management information.

129. MPI advised in the 2013/14 financial year that it would meet set up and development costs of NetSuite but not "business as usual" costs included in annual lease charges.

130. There were delays in the implementation of Netsuite.

131. NetSuite's adaptive financial planning and budgeting tool should provide a significant improvement on the existing process. The system should allow forecasting and budgeting by customer and product which should improve transparency, accuracy and timeliness and allow a more granular analysis of product margins. It is also intended that budgeting would be done to a greater extent by those out in the markets closest to the customers.

Review Comments

132. NetSuite should allow more timely and accurate reporting of the marketing objective to the PSG. It should also allow an aggregated view of sales, volumes prices and margins to be provided easily for monitoring the progress of the MGB programme. It should provide an important opportunity to significantly improve the quality of reporting.

New Zealand Market

133. New Zealand was described as an important market. The intention was to continue building a presence as a top-end offer in selected restaurants and a range of food stores.

134. This milestone is funded entirely by the industry partner. However, the Go Direct approach used in New Zealand is to be used in all the international markets that are to be developed as part of the MGB programme

135. A range of activities covering expanding the number of stores and restaurants in New Zealand and Australia was well reported in the early reports. The 2013/14 annual plan noted that the key achievement measures for the New Zealand market were met in year one with the targeted numbers of stores and restaurants exceeded.

136. The October to December 2013 quarterly report related that greater throughput was achieved through targeted supermarkets, and there was consolidation of the domestic customer base in both retail and restaurant markets. The January to March 2014 quarterly report explained that consolidation of the New Zealand market had been achieved. The October - December 2014 quarterly report summary noted that the market pull for the programme remained high with sales growth continuing to be strong across all markets with New Zealand Christmas sales exceeding expectations.

137. 2014/15 quarterly reporting moved to a new format and shows a chart of actual and forecast sales and volumes following a request from MPI.

Australian opportunity

138. The Australian market was being explored in 2012/13. We were told that despite the promising beginnings, the Australian market has proved difficult due to the strong position of grain fed Wagyu which was often sold competitively within Australia when it did not meet export specifications.

Review Comments

139. It is unclear whether or not New Zealand market milestones would be retained for the remainder of the MGB PGP but it could be expected that this would be addressed as part of the 2015/16 annual plan. If all reporting on the New Zealand market is to cease from this date, we suggest that the 2015/16 annual plan record what aspects of the 'Go-Direct' programme were tested in the New Zealand and Australian markets, what worked, what didn't and what will flow through to the international markets; essentially the activities associated with closing a project including its post implementation review.

140. We would expect that progress with the "direct to consumer" strategy would be outlined in the 2015/16 annual plan.

141. The absence of reporting on initiatives in the Australian market should be corrected and reported upon (perhaps during the preparation of the 2015/16 annual plan) to ensure that there is an auditable record available for review in the future.

142. The review team believe that the inclusion of the sales and volume forecasts and actuals, and focus on reporting key points, represents an improvement in monitoring. Should reporting on the New Zealand market be continued from the

end of its funding period we suggest that this could be further improved if sales and volumes were shown from the inception of the programme in August 2012 and before if the data is available. A time series going back before August 2012 would allow some assessment of the additionality of the MGB programme. This information could be augmented by adding in an average price chart.

143. As discussed in paragraph 123 the inclusion of a time series of average margin would also be useful. The implementation of NetSuite should significantly ease the effort to provide this sort of reporting.

London Market

144. The PSG approved the recommendation to pursue development of the London market in May 2013. MPI funded just under two thirds of the total costs

145. There have been a number of changes in direction in how the London market had been approached.

146. The April to June 2013 quarterly report summary explained that the Go Direct model was successfully launched in London at the end of that quarter with the opening of the Provenance Meat Company's first butcher shop, and the appointment of the London Ambassador for the programme.

147. The July to September 2013 quarterly report summary stated that the London in market partner Provenance Meat Company opened their first butcher shop in Notting Hill in early July, with all of their beef sourced from the Grass fed Wagyu programme. By quarter end sales were running at budgeted levels, and due to a very positive response from customers, plans to open a second store in London are being accelerated.

148. The September to December 2013 quarterly report summary noted that London sales volumes had been established at levels budgeted, with the in-market partner's first store performing strongly, and plans in place to further develop the market in London. The following quarterly report summary simply noted that the market had been consolidated.

149. The July to September 2014 quarterly report summary noted that within the marketing objective a Category Manager for the UK market was employed and inducted in August 2014. This report also said that there continues to be a strong demand for the product in each market including some new potential categories showing promise in the UK.

150. The October to December 2014 quarterly report summary noted that in the UK, a promotion with a major retailer sold out in 2-days resulting in a commercial listing of significant volume.

Review Comments

151. The UK market is generally well understood by New Zealand exporters. The power of the major supermarkets in dictating product lines and prices[26] in a market characterised as both 'price sensitive' and parochial is regularly reported on. There is a small high quality beef[27] quota[28] of 1,300MT annually for the European Union which FLF do not enjoy; meaning that such product would have to enter paying the high out-of quota tariffs.

152. There is also a strong market focus on buying British which had been strengthened by their own beef industry being put under significant pressure as a result of, for example, BSE in 1986 and foot-and-mouth disease outbreaks in 2001 and 2007. The 'minced-daily' campaign was introduced after the 2013 meat adulteration scandal (the so-called 'horsemeat scandal') where foods advertised as containing beef were found to contain undeclared or improperly declared horse meat, as much as 100 percent of the meat content in some cases, and other undeclared meats, such as pork.

153. A combination of factors, including freight costs and the high tariff on premium beef make MGB relatively expensive.

154. The actual and forecast sales and volumes charts for London have provided a better quick update on that market as they have for the New Zealand market. Including average pricing and margin data could also be helpful.

155. We recommend that to ensure that there are no technical market access issues impeding value-add activities taking place in New Zealand, FLF and MPI Regulations and Assurance Branch discuss the range of products intended to be supplied to the UK.

United Arab Emirates (UAE)

156. The July to September 2013 quarterly report summary explained that the decision was made during the quarter to target the UAE as the second new Go-Direct International Market, with initial market studies completed, potential in market partners identified, and initial customer visits completed. The October to December 2013 quarterly report summary noted that key people had been identified to enable the sales launch planned for the second international market

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26 For example, Supermarkets, retailer power and buyer power - an economics perspective, 2012, Young (http://www.britishbrandsgroup.org.uk/library/download/50ccbb929b8e8) and The relationship between supermarkets and suppliers: What are the implications for consumers?, 2012, Consumers International (http://www.europe-economics.com/publications/the_relationship_between_supermarkets_and_suppliers.pdf)

27 'High Quality Beef' means meat covered by CN codes 0201 20 90, 0201 30, 0202 20 90, 0202 30, 0206 10 95 and 0206 29 91 as defined in Commission Regulation (EC) no. 936/97: "High Quality Beef originating in New Zealand meeting the following definition: Selected chilled or frozen premium beef cuts derived from exclusively pasture-grazed bovine animals which do not have more than four permanent incisor teeth in wear, the carcases of which have a dressed weight of not more than 325 kilograms, a compact appearance with a good eye, of meat of light and uniform colour and adequate but not excessive fat cover. All cuts will be vacuum packaged and referred to as "high quality beef." Cross reference: EU Customs tariff - CN Codes; Appendix Four.

28 http://www.nzmeatboard.org/main.cfm?id=22

(United Arab Emirates), with a legal entity registered in market to allow Firstlight Foods to operate in that market, with key storage and distribution facilities in place. The following quarterly report summary stated that early development steps in the UAE Market were completed.

Review Comments

157. The UAE average prices are attractive. However, UAE sales account for a modest percentage recent sales.

158. New Zealand Trade and Enterprise (NZTE) has recently refreshed their guidance on the UAE. In relation to food and beverage it notes that "*the UAE imports about 90 percent of its foodstuffs. The premium market (four- and five-star) is still growing, as is food service, for example, quick-serve restaurants, casual dining and airline catering. The food service market is larger in most categories than retail*"[29]. Of particular relevance to the MGB programme is NZTE's observation that *"the area of most interest is the* ***rise in high-end, high-quality branded food***[30] *and beverage products, particularly into the UAE, our most significant market in the GCC.* ***Here brand is king***[31]*, and residents and visitors have an increasing appetite for such products."* NZTE go on to note that "*the UAE is a competitive market, with food and beverages from around the world available in luxury hotels, restaurants and malls across the country. Consumers here are spoilt for choice."*[32] The opportunities in the GCC states are echoed by Rabobank in its August 2014 "Getting New Zealand agriculture on the global market access 'VIP' list"[33].

159. We note that as this market develops it will be particularly important to ensure that the MGB product being offered to the 'super rich' is viewed as prestigious; with a sense of eliteness about it and that any sales that might dilute the FLF brand are avoided or handled carefully to avoid undermining the exclusivity in the brand.

United States

160. FLF is investigating options for entering the US market.

Review comments

161. The 2014/15 annual plan allowed for about a year's delay in the USA milestone. The reviewers did not see or review the USA market business plan. We would

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29 https://www.nzte.govt.nz/en/export/export-markets/india-middle-east-and-africa/united-arab-emirates/

30 Our emphasis

31 Our emphasis

32 https://www.nzte.govt.nz/en/news-and-media/blogs-and-commentary/2014/9/19/the-uae-a-gulf-of-opportunity-for-new-zealand-fandb/

33 http://www.rabobank.co.nz/News-and-Events/Media-Releases/2014-News-Archive/Pages/media-release-20140812.aspx

expect that the 2015/16 annual plan would describe the agreed activities in more detail and be available for review at a later date.

162. As a result of the GATT Uruguay Round 213,402 tonnes (product weight) of New Zealand beef and veal may be exported to the United States annually at a tariff rate of US4.4c/kg on most beef products. Imports within the tariff rate quota ("TRQ") are referred to as in-quota. An out-of-quota tariff rate of 26.4% ad valorem (based on the FOB value) applies to product imported outside the quota. Prior to the start of each quota year (calendar years), the New Zealand Meat Board makes quota allocations[34] to qualifying companies and new entrants in accordance with the "*Quota allowance allocation system in respect of US beef and veal tariff rate quota*".

163. It has been many years since New Zealand has exhausted the TRQ. However, with beef and veal exports to the US increasing by 33 per cent to 122,200 tonnes shipped weight in the six months to March 2015[35] we recommend that quota related arrangements be reviewed as part of the annual planning process.

International Markets 4 and 5

164. An objective related to the development of international markets four and five has been included in the annual plans since May 2013

Review Comments

165. We did not locate any reference to any new geographic markets that would be needed to achieve the milestones for international market 4 and 5 in the reports to the end of December 2014. We make some suggestions about development of these markets below.

New Market Development

166. The last annual plan included a New Market Development milestone intended to support the roll-out of the Go Direct programme to a fourth, fifth, and sixth market by identifying in conjunction with NZTE and other external advisers markets best suited to the Go Direct model. Commercial production, product promotion including brand marketing and sales are outside the scope of this programme.

167. In the October to December 2014 quarterly report summary it was stated that research into the nutritional benefits of grass-fed Wagyu commenced in the quarter.

168. We note that whilst the activities were related to new market development there are two distinct areas of work covered by this single milestone; 1) new markets per se and 2) research.

34 http://www.nzmeatboard.org/main.cfm?id=26

35 www.beeflambnz.com/news-events/media-releases/2015/april/export-statistics/

169. The programme has noted that MPI had in house expertise that could provide some early direction on what areas of nutritional research to concentrate on. Similarly, we note that Beef + Lamb NZ Inc (http://www.beeflambnz.co.nz/), which is responsible for generic marketing of beef and lamb in New Zealand, also has specific expertise as regards nutrition and the heart foundation two ticks programme. Nutritionist Fiona Carruthers has chaired the New Zealand Nutrition Foundation and was the New Zealand expert on recent grass-fed beef and processed meats studies. B+LNZ's Nutrition Manager, Fiona Grieg, could also be a useful contact.

Review Comments

170. As noted above, this new milestone covers two quite distinct work-streams. We recommend that for clarity all milestones about consumer, market research, product development, quality and nutritional profiling be put in their own separate objective. This would also help should MPI funding differ between these work streams. We also recommend that during preparation of the 2015/16 annual plan the expenditure on consumer market research, product development, quality and nutritional profiling be described in more detail.

171. There are at least 3 other PGPs which have relevance to, potential synergies with, or cross-over with the MGB project.

- Red Meat Profit Partnership: A consortium of agribusinesses and the government has partnered up to invest $64 million programme to drive sustainable, long-terms profits for New Zealand's red meat sector[36].
- FoodPlus – Generating more value from the red meat carcase: To identify opportunities to create higher-value products from red meat, with a focus on new food, ingredients, and healthcare products[37].
- FarmIQ – Demand-driven value chain for red meat: To tailor farming systems and supply products that meet customer preferences; the implementation of electronic identification and traceability systems to enable the performance of individual animals to be measured from on the farm through to meat quality at the point of processing[38].

172. There may be benefits in coordinating these PGPs through some sort of roundtable of the key people from the four projects to identify any potential areas for collaboration/areas of overlap.

36 www.mpi.govt.nz/funding-and-programmes/primary-growth-partnership/primary-growth-partnership-programmes/red-t-profit-partnership/

37 www.mpi.govt.nz/funding-and-programmes/primary-growth-partnership/primary-growth-tnership-programmes/foodplus/

38 https://www.mpi.govt.nz/funding-and-programmes/primary-growth-partnership/primary-wth-partnership-programmes/farmiq/

Objective 4 : Production Research & Development

173. This objective is titled "*Grass-fed Marbled Beef Production Research and Development*". Its outcome is to "*develop systems to produce sufficient volumes of uniform well-marbled beef to meet an expanding market demand*".

174. The outcome aims to:

- Demonstrate the returns (expected growth rates and profitability) from crossing high marbling sires over the three main NZ dairy genotypes (Friesian, Kiwi and Jersey) by 31st July, 2019;
- Develop best practice management and feeding guidelines and provide practical on-farm guidelines to support Objective 2 (Supply Chain) to meet supply chain and product quality needs within Objective 3 (market demand); and
- Demonstrate performance and financial returns and develop protocols for maximising breeding cow performance using Angus x Jersey cows and their Wagyu progeny by 31st July, 2019;

175. This outcome is managed by On-Farm Research Ltd and led by Paul Muir.

176. This objective is comprised of five milestones:

4.1.1 Benchmarking Friesian, Kiwi and Jersey cows as dams for F1 Wagyu calves

The three main dairy genotypes will be benchmarked against each other in terms of animal performance (growth rate and meat quality) and financial returns when mated with a Wagyu.

4.2.1 Evaluate feeding strategies to maintain growth rates and meat quality, and develop techniques to predict marbling in live animals

Identify forage options (forage, crops and other supplements) that will maintain growth rates during periods of reduced feed quality over summer and reduced feed supply over winter. Different phases of an animal's growth path have different requirements so the best options may vary between growing and finishing cattle. In addition effects of different options on meat quality especially fat content, will be evaluated

Once several options have been identified for each season they will be tested under larger scale commercial conditions. Once sufficient information on viable options for each season the work will reach a Stop/Go point.

Developments in ultrasound technology mean it may be possible to measure marbling in live animals and manage animals with poorer marbling more profitably. Research will compare marbling predicted by ultrasound on live animals to results collected at slaughter.

4.2.2 Evaluate effect of management systems especially growth path and castration time on marbling and meat quality.

To evaluate the importance of growth path on marbling and meat quality in grass-fed animals. The aim is to demonstrate what can be achieved when animals are fed as close to the ideal level and secondly to quantify the loss in meat quality and carcass value when animals are restricted e.g. during the winter. This will help our understanding of the relationship between growth rate and nutritional history (season, forage type, pasture quality) and meat quality (meat colour, fat colour, marbling and yield). To understand the effect of age at castration on the ultimate marbling level in the carcass.

4.2.3 Evaluate and extend the utilisation of the data currently being collected on commercial animals

Extension of the data currently collected by Firstlight Foods (carcass weight, subcutaneous fat cover, fat colour and marbling) to include data on growth. The carcass data will be related to on-farm growth rates and to feeding on-farm prior to slaughter. Data on feeding and management systems together with the results of the database analysis will be fed back to Producer Groups via newsletters and focus.

4.3.1 Efficient beef cows

Demonstrate the profitability of the Angus x Jersey cow and her progeny against traditional beef cows

Analysis

177. There have been significant savings in the budget for this objective. This has come mainly from the work on Benchmarking Dairy cows and has resulted of new developments in DNA technology which has enabled research findings from Objective 1 Genetics to also be used in work on Benchmarking Dairy Cows. It was noted that these cost reductions would not negatively affect outputs as they would remove what would have been duplicate activities.

178. A herd of older Wagyu x Friesian and Wagyu x Kiwi animals was identified in Northland and brought into the Benchmarking Programme. This meant that

initial results were now available much earlier than planned as these animals were already at slaughter age. Fewer calves were now needed to be farmed through to slaughter age which had reduced costs significantly.

179. Significant savings were reported in the Efficient Beef Cow programme due to sound early results enabling the project to be scaled back without affecting outputs.

180. The 2014/15 annual plan therefore sought approval to reduce funding of Objective 4 over the life of the programme as MPI sign off was required if a change in direction/funding was significant or material.

Benchmarking Dairy Cows

181. This sub-objective is investigating the performance of Wagyu calves from Fresian and Kiwi cows for effects on growth rate, profitability and carcass quality. In the July to September 2014 quarterly report summary it was reported that positive interim results of DNA and carcass quality were received from a number of Wagyu Dairy cross cattle slaughtered in Northland.

Review Comment

182. The trial work to compare the production performance of Friesian and Kiwi cross animals is on track but with fewer animals due to problems with availability. We were assured that these were sufficient numbers to give meaningful results.

Evaluating Feed Strategies to maintain growth rates and meat quality

183. In the winter of 2014 a feeding trial was conducted over 9 weeks which aimed to identify what growth rates were achievable with Wagyu x dairy yearlings fed one of three forage options. This is important because improvements in growth rates in young cattle will reduce the number of older cattle in the supply chain which should significantly improve profitability and improve meat quality.

Farm Management Systems

184. The programme has been looking at the impact of farm management systems which has involved testing growth rates on ideal year round feed regimes compared to typical feed regimes which often limit feed during winter or summer droughts.

185. This milestone has also involved investigating whether timing of calf castration affects meat quality. This work is on-going.

Review Comment

186. The trial work being carried out by On Farm Research around forage systems and management systems appears to be on track, as is the ultrasound work looking at intramuscular fat levels.

Data Collection

187. An increasing amount of data has been stored in this carcass database. As at December 2014 the database held information for 11,661 animals processed since January 2011. The growth rate of each animal was added to this database to provide farmers with improved feedback on their management systems and its potential impact on meat weight and quality. The value of this analysis would increase as the dataset grows and data from the trial work was added to it. An interesting initial observation from the analysis was at F1 Friesians appeared to have better marbling than F1 Angus.

Efficient Beef Cows

188. This work involves testing old research that points to Angus x Jersey cows being more efficient given they are smaller and produce more milk than beef breeds. Wagyu sires are mated to Angus x Jersey and Angus cows and their calves are being monitored for comparative growth and meat quality. Early work suggested that Angus x Jersey are more fertile than Angus and that summer weight gain on hill country on medium quality summer feed was better.

189. The business plan explained that the Angus x Jersey heifer provides a potential solution both to the lack of value of surplus calves from Jersey cows and the low productivity of the traditional beef cow in the beef industry. It noted that 1970's trials had shown that Jersey x females produced the greatest weaning weight relative to their bodyweight, but they had the earliest puberty and best in-calf rates. Analysis of reduced feed requirements of a smaller cow, higher milk production, and hybrid vigour of offspring for calf survival and growth was quoted in the business plan as having the potential to lift financial returns of the traditional beef cow by 30 percent. This would come from farmers running more cows, carrying other profitable young stock, or feeding animals better.

190. The latest developments with this milestone were the weighing of all cows and a 3rd group of Angus Jersey and Angus heifers were crossed with Wagyu.

Review Comment

191. Intermediate outcome objective 4.3 "Efficient beef cows" appears to be behind schedule, a herd of cattle being run alongside traditional beef cattle on two properties.. Difficulties in getting this trial up to scale reflect the general resistance among traditional beef farmers toward Jersey cross genetics.

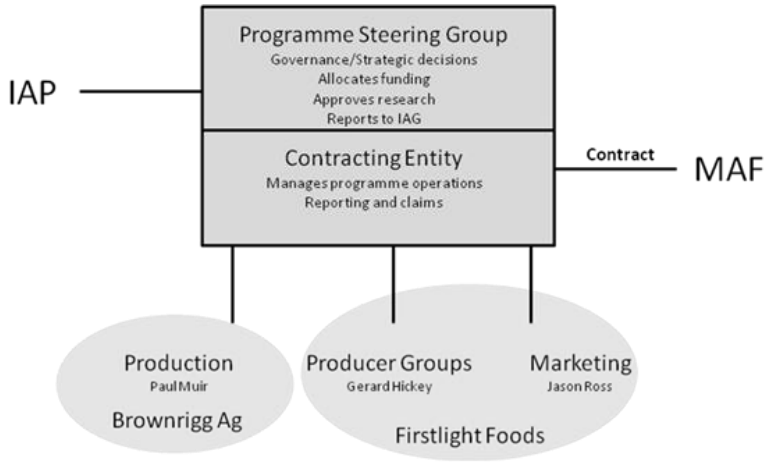
192. The Angus-Jersey cow work still has merit to the industry and we would like to see this pursued as one of the "stretch objectives" of the programme, especially once some of the efficiency parameters have been quantified. It will need to be supported by the Dairy Integration initiative, and eventually by the availability of Wagyu bulls.

193. We also consider that it may be worthwhile exploring the potential to supply an increased number of stories to rural media about progress in this objective to help build curiosity about and interest in the MGB programme.

Management and governance

194. At the time of the business plan Figure 4 set out the structure and accountabilities of the programme. It was designed to use existing personnel and systems where possible, to minimise costs and provide short lines of responsibility. The entity contracting with MAF now MPI was to be an incorporated joint venture between the two co-investors, Brownrigg Agriculture and Firstlight Foods Ltd with the three key objective leaders working to that entity. Objectives within the programme were to be managed by objective leaders as shown in Figure 4[39].

Figure 4 Wagyu Grass-Fed Beef PGP Structure & Accountabilities



Source: Business Plan

195. The joint venture entity was to include John Loughlin, David Brownrigg, Paul Muir, Gerard Hickey and Jason Ross. It was designed to act as the contract manager for operational matters, with objective leaders reporting on progress at regular meetings. These would ensure that progress was synchronised across the objectives. Written quarterly progress reports were to be provided by objective leaders, timed to provide information for quarterly reporting by the joint venture to the PSG.

196. Then and now the PSG is responsible for the on-going governance of the project and is accountable for strategic decisions regarding the high-level direction of the programme. The PSG is also responsible for the allocation of funding to specific tasks as set out under the contract, determining when milestones have been achieved and Go/Stop decisions. It reports to the Investment Advisory Panel (IAP) quarterly via the programme quarterly reports.

197. There was a thorough discussion of expectations of the programme's governance processes at the first PSG held on 11th September 2012. The PSG agreed an approach to meetings that was to be one of management by no surprises, with any issues tabled and addressed early. It was anticipated that John Loughlin, as PSG Chair, would visit Wellington approximately twice during the life of the programme to report to the IAP. It was MPI's view that the PSG would decide

[39] Business plan, page 54

on significant "stop : go" decisions, but that co-investors were expected to make commercial "stop : go" decisions and inform the PSG of those, preferably in advance. As an example, MPI considered a decision about whether to enter the USA East or West coast markets as commercial, so it would be made by FLF and then PSG advised. It was explained that a decision about whether to go to the USA at all was however significant and therefore should be made by the PSG. The London market was used as another example. A "Stop : Go" decision should be discussed at the PSG on whether to enter that market, but the decision on how to proceed should be made by the co-investors - the FLF Board.

198. MPI also noted at the first PSG that the Government needed to be aware of any changes that were being made to the agreed programme. MPI stated that this would occur with the adoption of the annual plan each year. The expectation was that decisions about commercial changes made during the year that were within the annual plan would be made by co-investors, and reported through to the PSG.

Analysis

199. Review team interviews with the partners in the MGB programme and PSG minutes[40] have highlighted some concerns about the programme. There have been concerns that:

- The programme had been managed like four separate projects and which meant that co-investors were not able to coordinate their position before PSG meetings.
- The quality and coverage of some information in quarterly reporting and annual planning was not adequate and timeliness of market development plans was lacking.
- PSG meetings had tended to get bogged down in discussions of detail and administrative issues.
- There had also been differences of view over the importance of the dairy integration sub-objective. It had proven difficult to fulfil but was a fundamental objective for IAP and MPI.
- Budgets had often been significantly underspent.

200. A number of initiatives have been put in place to address concerns within the management of the programme including:

- A co-investors meeting prior to each PSG allowing co-investors the opportunity to manage the programme and coordinate better;
- The appointment of a full time Programme Manager in October 2014 compared to the previous part time contracting role; and
- A focus in PSG meetings and reporting on key issues rather than all issues.
- An improvement in key issues and risk reporting in quarterly reporting.

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40 For example PSG minutes 27 January 2014, page 5

201. These initiatives were generally agreed by those we interviewed to have improved management, reporting, monitoring and decision making. However, the review team believe that more could be done to build on this foundation.

202. The Controller and Auditor-General report "Achieving public sector outcomes with private sector partners"[41] makes a number of helpful observations about the governance and management of arrangements such as PGPs. These include the over-riding importance of an effective governance framework with open and clear organisational commitment and leadership, decision-making, change management, roles and responsibilities, succession arrangements, authorities and delegations, reporting and accountability, performance management and stakeholder consultation and communication.

203. The same report[42] noted that Partnerships Victoria's June 2003 Contract Management Guide[43] identified factors that needed to be considered in setting up partnership management structures and that these should be described in the contract documentation.

- Senior management support – The relationship should be championed at senior levels in both organisations;
- Peer-to-peer communication – Working relationships should be conducted between peers. If a timely decision cannot be made at one level, there should be escalation procedures so that it can be referred to a more senior level;
- Separation of roles – Day-to-day contract management and service delivery should be separated from management of the overall strategic relationship and long-term strategic issues; and
- Appropriate and clear roles and responsibilities, with contract management staff having an appropriate level of authority to carry out their jobs effectively.

204. We believe that these sorts of factors are a good check list for the MGB programme's governance.

Review Comments

205. The survey by Nic Lees of Lincoln University investigated the quality of the relationship between FLF suppliers and FLF. It looked at critical determinants such as trust, commitment and satisfaction. If these determinants of the quality of relationships were applied to the MGB Programme partners now, the review team suspect that such as study would find a high level of organisational commitment by all parties. However, we believe that it might also find a lower level of trust and satisfaction.

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41 OAG, February 2006

42 Ibid page 50

43 www.partnerships.vic.gov.au

206. It has been challenging for the governance of the programme to find the right balance of information flows at a suitable level of detail to allow for effective monitoring but to avoid the administrative detail. This has been because unlike other Government to commercial entity relationships, PGPs involve decisions down to the level of individual invoices at times[44]. This has the effect of requiring MPI, in this case, to interact with the commercial entities involved at a very granular level. In contrast the relationships between the Government and State Owned Enterprises or Crown Entities are more arm's length and governance processes are more able to focus on strategic issues within the context of the Companies Act, State Owned Enterprises Act and/or Public Finance Act.

207. Another challenge for PGPs and particularly the MGB programme, is that some milestones involve no MPI funding, for example the New Zealand market, while others involve a high proportion, for example aspects of objective 2 on the supply chain. However, all milestones contribute to the overall success or otherwise of the programme and are interrelated. An example is the Go Direct approach being modelled in the New Zealand market (with no MPI funding) but for use in all other markets (developed with MPI funding) and where the co-investor funding constituted roughly 30 percent.

208. A way to better address the situation could be to further separate the strategic from the administrative. This could involve instituting a high level governance meeting to be held near the end of the planning process to give the opportunity for the IAP and the MGB partners to discuss the strategic issues in the plan face to face. It may be helpful to look for opportunities such as this which might allow senior level MPI directors to directly engage with the programme. This could play a similar role to meetings between the Minister for State Owned Enterprises and the Boards of State Owned Enterprises. We believe that this could allow senior management to champion the partnership at senior levels in both organisations as well as improve the peer-to-peer dialogue necessary for an effective governance structure.

209. High level governance meetings could also be used should there be any significant reallocation of resources within the programme during the financial year that needed to be discussed and approved at a higher level than the PSG. The review team believe that the original expectation that the Chair would visit Wellington twice in the 7 years of the programme may have been too abstemious.

210. There may also be value in considering focusing technical and administrative issues into a separate meeting that precedes PSG meetings. This could involve the MPI investment manager and the Programme Manager along with any others needed. A formal step like this might help resolve these issues prior to the PSG in a similar way to that of holding co-investors management meetings before PSG meetings which allows the co-investors to coordinate before the governance meeting. In this way the day-to-day partnership management and administration

44 PSG 11 Sept 2012 Page 5.

could be better separated from governance of the overall strategic relationship and long-term strategic issues.

211. By necessity the PSG meetings have tended to focus on activities that have taken place in the past quarter and those that will be undertaken in the quarter ahead. In addition, in response to concerns about too much time being spent on administrative issues, a focus on key issues has been taken in recent quarterly reports. We suggest that there might be value in a standing agenda item encouraging discussion and consideration of strategic programme-related matters over a longer time frame. It may also be helpful to look for opportunities to include relevant MPI personnel in such discussions from time-to-time when their input could assist/be of particular relevance to 2019 and 2028 outcomes. For example, appropriate personnel from the: Situation and Outlook for Primary Industries[45]; Animal Welfare; Free Trade Agreements; and other market access related issues.

212. At a technical level, we suggest that it could be useful to work with beef sector MPI SOPI specialists[46] and Beef and Lamb NZ Economic Service personnel to refine what data sets can be used for comparative purposes and in ensuring efficient, least burdensome, reporting.

213. Market access arrangements often take a period of time to negotiate. The opportunity for dialogue with the appropriate MPI specialist could help ensure that market access arrangements are in place for each country and type of MGB product intended to be sold. Identifying these prospects/opportunities early and ensuring that they can be progressed and/or resolved should be of assistance to the MGB programme.

214. The review team has made a number of recommendations about further improving the monitoring information provided in quarterly reports. We believe that Netsuite should allow this reporting to be done quickly and easily once processes are bedded down to be replicated each quarter.

215. As mentioned above, the review team see the partners in the MGB programme as committed to its success. We counsel that a matching level of trust and satisfaction within the partnership could be achieved if further measures to separate strategic issues from administrative ones and provide more automated and focused reporting are taken.

216. We believe that the reasons for PSG decisions should be clearly and comprehensively recorded[47]. Some PSG decisions haven't achieved this and can disconnect the decision from the reasoning for it (see paragraph 72). We suggest that PSG decisions are clearly recorded and that reasons for decisions and any qualifications on those decisions are explained. We also recommend that a running total of all stop : go decisions and their reasoning be appended to

45 See SOPI : http://www.mpi.govt.nz/document-vault/4747

46 Talk to Jane Davidson, Economics and Information Analysis team in Sector Policy, MPI.

47 This echoes recommendations made by the Office of the Auditor General about other decisions made as part of the PGP programme in her report "Ministry for Primary Industries: Managing the Primary Growth Partnership". See page 19 available at http://www.oag.govt.nz/2015/primary-growth

quarterly reports and highlighted in PSG minutes so that they can be easily found and referred to.

Budgeting

217. Budgets in the early years of the MGB programme have often been underspent[48] which has been of concern to MPI[49]. A degree of missing budget targets is to be expected in a programme involving exploring new technologies and requiring the flexibility to try one approach, which if it doesn't work try another which might. In addition entrepreneurs will always be looking for ways to carry out activities as cost effectively as possible as they go along. This contrasts with Government processes in which budgets are hammered out, agreed before the financial year begins and adhered to closely after that. However, some variances were very large. Measures taken in the 2014/15 year such as the employment of a full time Programme Manager and the full implementation of NetSuite should help to address this issue over the remaining years of the programme.

MPI Funding

218. MPI or Government funding is permitted for generic market activities, but not brand marketing costs[50]. MPI could also not meet production costs but could meet R&D costs[51]. The review team sought further information on the policy for this spend but that information was not easily available due to it being a mix of some documented funding policy by MPI Branches such as the Policy and Trade Branch and some tacit knowledge of MPI investment managers.

219. We note that the MGB programme has been one of the more challenging PGPs according to MPI[52] as it has been necessary to frequently make calls on whether MPI funding would or would not be available to pay for differing activities[53]. The review team recommend that MPI draw together the funding precedents created by the MGB programme and other PGPs into one document. We believe that this could help investment managers make future funding decisions more easily and help to ensure clear and consistent practices [54]

220. Investment managers would be able to refer to this single source, and compare with other precedents when they faced a question over whether MPI funding

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48 For example see the 2013/14 quarterly reports and PSG Minutes 25 February 2013, page 6,

49 For example see PSG minutes 22 October 2013, Page 3

50 PSG Minutes 10 May 2013, page 1, MPI were considering separating out marketing spend for MPI funding on the basis of the percentage of time the London Ambassador and Strategist spent developing a new channel to market - a generic cost, vs. and the percentage of time spent on sales and brand marketing.

51 PSG 11 Sept 2012, page 5

52 From interviews with Jeremy Parsons and Gillian Mangan.

53 For example "in kind costs" see PSG 20 May 2013, page 1, and separating venison from Wagyu costs in the UAE market see PSG Minutes 30 July 2013, page 3 and PSG minutes 21 January 2014, page 2 and Netsuite licence fee see PSG minutes 21 January 2014, page 3.

54 This echoes recommendations made by the Office of the Auditor General about other decisions made as part of the PGP programme in her report "Ministry for Primary Industries: Managing the Primary Growth Partnership". See page 19 available at http://www.oag.govt.nz/2015/primary-growth

could cover particular expenditure. A single source could also help ensure that new precedents were carefully considered and people did not miss where other spending requests had been turned down. It would also be a useful reference should there be parliamentary questions or other enquiries about why certain expenditure was permitted while other expenditure was not. A single source of MPI funding decisions could save time and reduce the administrative burden of current and any future PGPs.

Other issues

Toll processing

221. There is no milestone associated with 'toll-processing' arrangements and we are not suggesting that there should be as the activity itself is simply part of the supply chain to market. However, toll-processing arrangements can become quite problematic, particularly as throughput increases, and it would be sub-optimal for a bottle-neck to occur. We suggest that PSG review this annually (perhaps during the annual planning process) to be satisfied that there are robust slaughter and processing arrangements in place for the estimated kill numbers and their geographical concentration.

Spill over and capability effects

222. At the first PSG meeting[55] MPI highlighted the importance of spill over effects in providing compelling reasons for the Government to invest in the MGB programme and that these were required to justify its investment. Further MPI emphasised that spill overs were an important component of the contract and would need achievement measures.

223. Various achievement measures for spill over effects and capability exist for the MGB programme. A key one which contained specific figures was "*Benefit to consumers through income increasing by $7.22 million in 2019 resulting in and additional $11.5 million of spending per annum by 2028.*" This was amended in the 2014/15 annual plan to "*Benefit to consumers through income increasing by $3 million in 2019 resulting in and additional $11.5 million of spending per annum by 2028.*" This fall in the 2019 benefit resulted from the fall in animals planned to be killed in that year in the 2014/15 annual plan. These should be reviewed in light of the lower slaughter numbers forecasted.

224. Other spill over and capability KPIs have only sought to improve or increase the spill over benefits listed in paragraph 35 above. This is not surprising as measuring the incremental benefits of these resulting directly from the MGB programme would be very challenging. However, it may be possible to better describe how these benefits are expected to flow from which activities in the programme in annual planning. For example it should be possible to describe how increased skills in cattle transport and beef processing facilities will come

[55] PSG 11 Sept 2012, page 4

about as a result of the programme. In the case of the latter this might be via improved tracking and tracing.

Labelling and in-market claims

Analysis

225. Any claim made on a label, in documentation, or in market needs to be underpinned by an auditable and independently verified system. Terminology used should be accurate and not inadvertently mislead the consumer. Where practicable, the claim should refer to the standard that it adheres to.

226. Few markets (the USA is the exception) have defined the term '*Grass-Fed*' although it seems reasonable to assume that consumers would have a legitimate expectation that 'grass fed' meant fed on grass, with some perhaps appreciating that forage might also be included. However, if used, meal supplements may not fit within the meaning of grass-fed. An abbreviated version of the US definition for grass fed is as follows:

227. "*Grass (Forage) Fed*[56] *– Grass and forage shall be the feed source consumed for the lifetime of the ruminant animal, with the exception of milk consumed prior to weaning. The diet shall be derived solely from forage consisting of grass (annual and perennial), forbs (e.g., legumes, Brassica), browse, or cereal grain crops in the vegetative (pre-grain) state. Animals cannot be fed grain or grain byproducts and must have continuous access to pasture during the growing season. Hay, haylage, baleage, silage, crop residue without grain, and other roughage sources may also be included as acceptable feed sources. Routine mineral and vitamin supplementation may also be included in the feeding regimen. If incidental supplementation occurs due to inadvertent exposure to non-forage feedstuffs or to ensure the animal's well-being at all times during adverse environmental or physical conditions, the producer must fully document (e.g., receipts, ingredients, and tear tags) the supplementation that occurs including the amount, the frequency, and the supplements provided.*"

228. As far as we could ascertain, Europe has not formally published any legal definition for '*grass-fed*'. Similarly, Ireland (Eire) does not appear to have a legal definition but Irish commerce tends to use the following lay description:

- *"Grass fed beef*[57] *: Grass fed meat is that which comes from animals solely raised on a diet of pasture plants such as grass, shrubs, weeds and other green leafy forage. In cold climates, grass fed cows may spend some time indoors; however they'll still be fed grass equivalent feed such as silage or hay."*

229. We did not locate a standard or definition published by Standards New Zealand or Food Standards Australia and New Zealand that could be used by the MGB PGP to ensure that there is no ambiguity about what the term means. The PSG may wish to consider approaching these organisations with a request to have a

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[56] Grass (Forage) Fed Marketing Claim Standard (October 16, 2007, Federal Register Notice (72 FR 58631))

[57] www.irishsteak.com/blog/?p=78

grass-fed standard developed. In the interim, we suggest that MGB include a definition for "*grass-fed*" in all relevant MGB PGP documentation.

230. The use of Hormonal Growth Promotants (HGP) in New Zealand cattle is strictly controlled through the HGP Regulated Control Scheme and is legislated under the Animal Products (Regulated Control Scheme – Hormonal Growth Promotants) Notice 2012 (available on the MPI website). The Regulations and Assurance and Operations branches of MPI are accountable for administering and auditing this system and in providing government certification of this status. We recommend that MGB review its use of terminology referring to 'hormone free' in all relevant documentation, in-market signage and labelling to ensure that it is consistent with this specification and the official system that underpins it.

231. In 2012, the US Agriculture Secretary Tom Vilsack[58] was quoted as stating "*Under FSIS guidelines, when producers/companies request to make the marketing claim "raised without antibiotics" on their labels, we inform them that this means "no antibiotics in their feed water or injection including no ionophores" during the animal's life*". We note that there is a system in place (audited by AsureQuality) for cattle administered with antibiotics and that MGB is already in dialogue with MPI about its 'Antibiotic Free' claims for the US market. However, the issue is broader than the use of ionophores in calf-feed. Amongst other things, calves raised off their dams are susceptible to navel-ill and scours, both of which require treatment to ensure that the health and welfare of the calf is not compromised. It is unclear from the documentation provided whether or not the MGB system covers all stages of the animal's life and recommend that MGB and MPI Regulations and Assurance formally determine what claims can legitimately be made.

232. There are now 145 farms supplying MGB some of which may not be 'small family farms' as claimed on some MGB packaging or be considered part of a co-operative (contracted suppliers). We recommend that the MGB reviews its in-market labelling and that statements, such as these, would be addressed at that time.

Intellectual property

233. The original 2013 contract for the MGB programme contained clauses setting out rights to, and protection of, intellectual property (IP). The 2013/14 annual plan contained a number of statements about IP. Some noted that it was too early in the project for IP to have been developed while others noted various IP that might be developed during the year. Much of the later seemed to be a rather broad set of all possible IP. In contrast the 2014/15 annual plan contained little on IP but noted that no significant IP was developed during year 2 in any of the four projects.

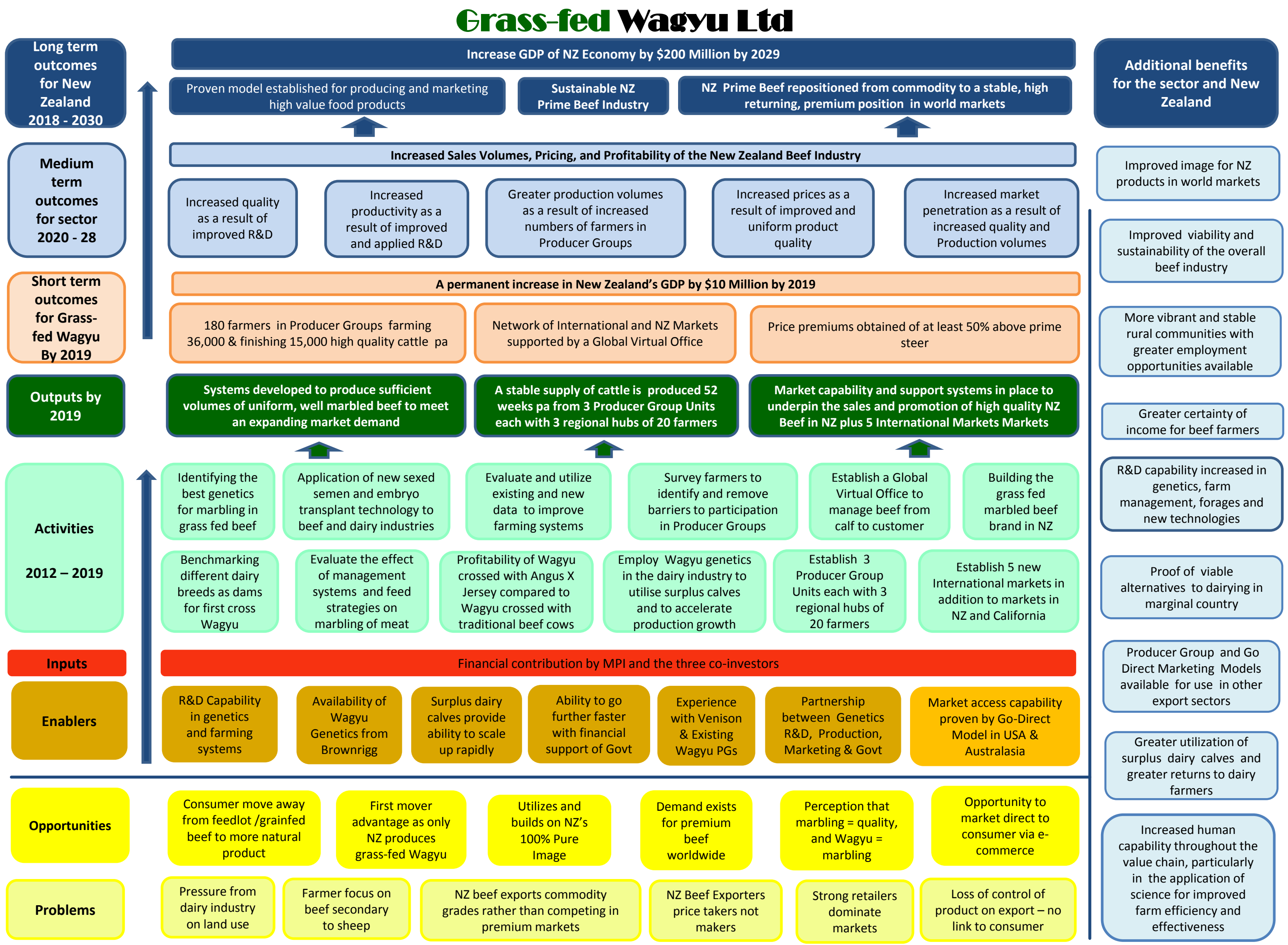
234. Evidently focus on IP has gone through a phase of interest and listing all possible IP to a view that little IP has been developed. We believe that IP created by the

58 www.foodsafetynews.com/2012/07/usda-looking-at-antibiotics-claims-on-meat-labels/#.VTwpLiGDGko

programme should be kept under periodic review including during the 2015/16 annual planning process to ensure that material IP it is adequately protected.

sapere research group

Appendix 1 : Outcome Logic Model



Appendix 2: Global retail marketing trends

1. In recent decades food retailing has become more concentrated with often only a handful of supermarket chains in many global markets. Retailers have often backwards integrated their businesses by setting up centralised buying and logistics. This has reduced and sometimes removed the traditional role of wholesalers. Suppliers therefore increasingly supply their products to a retailer's distribution warehouses and these are then distributed to the super markets by the retailer.

2. Supermarkets have grown with some stocking tens of thousands of products. This growth has increased the negotiating power of the retailers with any single supplier only accounting for a few percent of the retailers sales. In contrast if a supplier loses the opportunity to supply through a major retail outlet it can have very significant consequences. The increased scale of the larger retailers has given them the ability to source products at lower prices than competing smaller retailers. The scale of retailers also affects the speed with which price changes flow along the supply chain. It is also lower cost for retailers to switch suppliers than it is for suppliers to switch retailers.

3. Just in time delivery with reduced stocks on hand has often pushed stock management challenges further up the supply chain. The pricing arrangements faced by their suppliers have become more elaborate with slotting fees charged to obtain space on supermarket shelves starting in the USA in the mid-1980s and spreading around the world since. These fees vary by product but can be significant for suppliers. Retailer now use a range of pricing mechanisms that include volume discounts, asking suppliers to share promotional expenses, requesting discounts on new/untried products, charging fees for listing products on e-commerce sites, buy back provisions if stock does not move or meet standards, asking for investment in retail displays e.g. fridges and at times the threat of delisting suppliers.

4. Retailers are also commonly using their own brands which weaken the negotiating power of suppliers. Retailers are supplying shelf space but also buying unbranded goods to brand and compete with suppliers' branded products. Product lines can also be used as loss leaders to increase a retailer's market share. Retailers have at times required their marketing activities to be subsidised by suppliers.

5. The increasing level of back integration has meant that contracted supply is becoming more common and spot markets for food have waned. This makes it more difficult to assess prices because thinner spot markets can be more volatile and may not always reflect contract and spot prices well. Chicken and pork production tends to be very vertically integrated in many markets. This ensures consistent quality supply. E.g. chicken processors can own feed companies, hatcheries, breeding units and the supply chain has tight deadlines and quality standards.

6. The food service sector is another important market for food suppliers though this sector usually buys less protein products than the large retailers. Some food service sector suppliers also have significant negotiating power for example McDonalds.

   – Sources : Presentations to the OECD Meeting on "Competition Along the Food Chain" 5th meeting of the OECD Food Chain Analysis Network (FCAN)Paris, 30 and 31 October 2013. "The impact of investment and concentration among food suppliers and retailers in various OECD countries". Gabor Konig, PhD, Global Forum on International Investment, 7, 8 December 2009.