

Appendix B: Performance Measure Methodologies

Performance Measure:

1a. Number of value-added products developed and successfully introduced into market with assistance from Agriculture and Rural Development.

Methodology:

The result for this measure is the total number of written confirmations provided by industry clients for products that were developed with assistance from the Ministry and successfully introduced to market in fiscal year 2013-14. Value-added products include value-added food, beverage, and bio-industrial products.

The Ministry tracks all new value-added products of industry clients that are developed with some assistance from its staff. A product development activity encompasses projects where Ministry staff assisted industry clients in one or more of the following areas: product formulation, shelf-life, packaging, sensory evaluation, marketing, and commercialization.

At year-end, each industry client is asked to provide a written confirmation to verify the number of new products that were developed with the assistance from the Ministry and successfully introduced to market. "Introduced to market" refers to a product that has obtained a listing at retail or food service, domestically or internationally. The term also includes products that have been sold as ingredients for further manufacturing. The number of new products confirmed by written confirmations from industry clients are aggregated and reported for this measure. The data is collated from program areas within the Ministry that are engaged in project development and commercialization.

Performance Measure:

1b. Research and development investment by collaborators leveraged through ministry resources (\$ million).

Methodology:

The result for this measure is the sum of expended dollars from outside sources leveraged through Ministry investment in research and development in four priority areas: value-added processing, livestock development, crop diversification, and environmental stewardship. The outside sources or collaborators include industry organizations, private companies, universities, government departments, and agencies.

Research and development is creative work undertaken on a systematic basis in order to increase the stock of scientific and technical knowledge and to use this knowledge in new applications. The central characteristic of research and development is an appreciable element of novelty and it involves scientific investigations resulting in new knowledge, products, or processes.

The reported result was collated from data supplied by Ministry program areas that are involved in research and development activities. The questionnaire collects information on a division's fiscal year research and development expenditures and expended amounts received from outside sources. An expended amount is an aggregate amount of revenue that has been used to offset part or all of project expenses. The performance result for this measure is the sum of expended amounts of outside funds.

Data on in-kind contributions from collaborators are not included in the calculation of this measure. As a result, the performance result likely understates the true amount of leveraged resources invested by collaborators. Measures of in-kind contributions are less reliable, as they are based on estimates that can be subjective in nature. The data is collated from program areas within the Ministry that are engaged in research and development activities.

Performance Measure:

1c. Percentage of eligible seeded acres for major crop categories insured under Production Insurance (Annual and Perennial crops).

Methodology:

Annual Crops

The total eligible seeded acres for the annual crops insured under the Crop Insurance program is divided by the corresponding total seeded acres for annual crops as reported in Statistics Canada's November 2013 Field Crop Reporting Series (released on December 4, 2013). The result is then expressed as a percentage.

Annual crops refer to those that are seeded every year. The annual crops included in this measure are wheat (winter wheat; spring wheat; durum wheat), oats, barley, fall rye, mixed grain, flaxseed, canola, corn for grain, dry peas, triticale, dry coloured beans, lentils, mustard seed, chick peas, sugar beets, and fodder corn.

Estimate for land (in acres) seeded to annual crops in Alberta is taken from Statistics Canada's November 2013 Field Crop Reporting Series. This Statistics Canada publication also provides a detailed methodology to the field crop data. The November estimate provides the most recent information available on seeded acreage in Alberta.

The corresponding eligible seeded acres of annual crops insured under the Crop Insurance program is supplied by Agriculture Financial Services Corporation.

Perennial Crops

The total eligible seeded acres for the perennial crops insured under the Crop Insurance program is divided by the corresponding total for seeded and native pastures (Census of Agriculture 2011, Statistics Canada) and tame hay pasture (November 2013 Field Crop Reporting Series, Statistics Canada (released on December 4, 2013)). The result is then expressed as a percentage.

Perennial crops refer to crops that do not need to be seeded every year and last for several years.

Perennial crops are made up of seeded pasture, native/natural pasture, and tame hay.

The corresponding eligible acres of perennial crops insured under the Crop Insurance program is obtained from Agriculture Financial Services Corporation.

The Census of Agriculture is collected every five years, so acres may change during that time.

Performance Measure:

2a. Average percentage of improved environmentally sustainable agriculture practices adopted by producers (biennial survey).

Methodology:

The result for this measure is derived from 41 Environmentally Sustainable Agriculture (ESA) practices that could be used to address soil conservation, water management, wildlife habitat conservation, energy management, climate change adaptation, agricultural waste management, and grazing and manure management.

An eligible ESA practice (or group) for the base calculation is based on farm type, farm site characteristics, and operation practices. The percentage of eligible environmentally sustainable agricultural practices adopted by each respondent is multiplied by a weighting factor to generate a weighted adoption score for each respondent. The result of this measure is the average weighted adoption score of all respondents expressed as a percentage.

This survey assesses adoption of environmentally sustainable agriculture (ESA) practices. The target population for this survey is based on a list of commercial farmers in Alberta maintained by Ipsos Reid Corporation. The random and representative sample size was 501, providing a margin of error in provincial results of ± 4.4 per cent at the 95 per cent confidence level. The response rate was 14 per cent. Additional information can be found in Agriculture and Rural Development's 2013 Environmentally Sustainable Agriculture Tracking Survey.

Data limitations include producers that are not included in Ipsos Reid Corporation's database (the source of the survey list), non-contactable subscribers (due to privacy legislation compliance), unreachable sample (due to wrong telephone numbers, answering machine, busy, no answer, etc.) and non-response, and disqualification due to failure to answer a required screening question. The source data for this measure is Agriculture and Rural Development's 2013 Environmentally Sustainable Agriculture Tracking Survey.

Performance Measure:

3a. Percentage of Alberta licensed meat processing facilities that have added a preventative system to their existing food safety system.

Methodology:

The result for this measure is derived by dividing the number of Alberta-licensed meat processing facilities that have implemented appropriate food safety process control systems as of December 31, 2013 by the total number of Alberta-licensed meat processing facilities as of January 8, 2013.

All meat processing facilities (poultry and red meat abattoirs) licensed by the Ministry receive an annual Meat Facility Standards (MFS) audit, once per calendar year as part of the Meat Safety Audit Program. This audit is a full systems audit against the entire MFS. The full system audit is used to determine if a meat processing facility has added a preventative system to their existing food safety system. For the purpose of this measure, a preventative system is defined as compliance with MFS as determined by a scored full annual audit.

Only full system audits are reported under this measure. Audit findings are scored and recorded in the MFS Annual Audit Report. Each abattoir receives a Level 1-6 rating with Levels 1-3 receiving a certificate (Gold, Silver, or Bronze) indicating that they have added a preventative system to their existing system.

Meat processing facilities that either relinquished their licenses before their scheduled audit date or were not operating but retained their license are included in the base figure total number of Alberta-licensed meat processing facilities as of January 8, 2013. The findings of these meat processing facilities can have significant impact on the reported result. The data for this measure is collated from the Ministry's Meat Safety Audit Program.

Performance Measure:

3b. Number of Alberta food processing facilities participating in the Alberta Hazard Analysis Critical Control Point (HACCP) Advantage Program.

Methodology:

This performance measure reports the total number of Alberta's provincially-licensed food processing plants that implemented appropriate food safety process control systems in fiscal year 2013-14, as reported under the Alberta HACCP Advantage (AHA!) program.

This measure tracks the success of the Ministry in encouraging Alberta food processors to adopt HACCP-based food safety systems and/or improve existing food safety systems. HACCP is the acronym for Hazard Analysis Critical Control Point. HACCP systems provide a systematic and preventative approach for the identification and control of food safety hazards. HACCP is an internationally recognized, science-based food safety system based on preventing, eliminating and reducing hazards.

Food processors that participate in the AHA! program are considered the baseline/starting point from which incremental improvements to activities listed in the work plan can be measured against. Each work plan is then validated by Ministry Food Safety Specialists. The work plan validation confirms that the completion of the activities listed in the work plan will result in an incremental improvement in food safety in the processing plant. Food processors then implement the activities documented on their work plan and subsequently validated by Ministry Food Safety Specialists through on-site closing assessments. Incremental improvements to a processing facility's food safety system are assessed by comparing the results of a closing assessment to a validated work plan. Food processing facilities that are able to demonstrate an incremental improvement to their food safety systems are considered to have participated in the Alberta HACCP Advantage program and are included in the result for this measure. The data is collated from the Ministry's AHA! Program.

Performance Measure:

4a. Total investment leveraged in rural businesses facilitated through Agriculture Financial Services Corporation (AFSC) lending services (\$ million).

Methodology:

Farms and commercial business investments in rural areas (all sources are included whether it is direct from AFSC, other sources of debt, business owner's equity or investment by a third party) are added and reported as total dollar investment. This amount excludes all loans that were approved in fiscal year 2013-14 and subsequently cancelled or withdrawn on or before March 31, 2014.

The measure highlights the successes of AFSC's direct contribution, partnership and collaboration with other stakeholders in providing funding to rural businesses for farming and/or commercial activities located outside Edmonton and Calgary.

Dollar investment is any fund (i.e., debt, equity, investment) that would be used to support the growth of farming and commercial activities. Total investment leveraged is a proxy for the total dollar investment as a result of AFSC's involvement with the facilitation of capital investment in agri-

business and farm loans through its lending products, services, and partnerships. Access to loans is critical in developing and expanding rural businesses, which positively contribute to strengthening rural communities.

Total dollar investment in rural businesses is a proxy value for investment based on loans approved. Values reported are affected by timing differences between approval and disbursement of loans approved. As well, not all approved loans are disbursed. The data is collated from AFSC's lending activities.

Performance Measure:

4b. Percentage of ministry-supported, agricultural-related community activities that focus on leadership development.

Methodology:

The total of Ministry-supported leadership development activities is divided by the total number of Ministry-supported agricultural-related community activities and then expressed as a percentage.

This measure focuses on leadership capacity in rural communities, including the provision of diverse initiatives under Ministry agricultural community programming. The breadth and diversity of agricultural-related community activities held at various events throughout the year enhance the capacity of rural communities to nurture, retain, and enhance critical skills in leadership.

Leadership development activities encompass learning opportunities for both youth and adults in rural communities that nurture and improve skill sets needed to strengthen rural communities, such as management, public speaking, economic development, and environmental sustainability. These skills are important in supporting vibrant and sustainable rural communities.

Ministry-supported activities include educational workshops, sessions, and rural community-initiated projects that focus on leadership development, agriculture education, and agriculture-related activities such as livestock shows. Activities held at Ministry-supported events fall under three program areas: Agricultural Society Program, 4-H Program, and Agricultural Initiatives Programs. The activities included in the measure address the Ministry's five priority areas:

- **Agriculture-related activities** — refer to activities such as rodeos, fairs and livestock shows.
- **Agri-business development** — includes any activities that promote agricultural business development and the development of the agriculture industry.
- **Agriculture education and skill development** — includes programs or projects that foster awareness of agriculture or improve/develop skills within the community.
- **Leadership development** — includes training for volunteer staff, providing funding for conferences, workshops, or seminars, and sponsoring youth leadership development.
- **Community improvements** — includes any capital funding for infrastructure development, renovations, repairs and maintenance, and operating costs of facilities, as well as all capital projects from the Agricultural Initiatives Program grant program.

Data for this measure is collated from three program areas of the Ministry; Agricultural Society Program, 4-H Program, and Agricultural Initiatives Program.

Performance Measure:

4c. Percentage of rural youth and adults participating in ministry-supported programs that report effective learning from those programs.

Methodology:

The data for this measure is obtained through the use of written evaluations from a rotating sample of eight random and representative Ministry-supported programs. Fifty per cent of the programs evaluated in the prior fiscal year (2012-13) were replaced with a new sample of equal size in the current fiscal year (2013-14). The complete set of programs in the 2012-13 survey sample is thus replaced every two years, ensuring that 50 per cent of the programs are common from year to year.

The target audience and individual program objectives determine the type of questions that are selected from a standardized menu. For each question, the respondent may choose “Yes” to indicate a positive change (effective learning) or “No” to indicate no positive change. Questions that are not answered or have multiple answers selected are coded “No Response” and excluded from the analysis.

To assess effective learning from Ministry-supported programs, respondents are asked questions on knowledge learned, attitudes affected in a positive way, skills acquired, and aspirations developed through their participation in those programs. The aggregate weighted percentage of respondents who reported effective learning from Ministry-supported programs is calculated and reported.

A total of 685 rural youth and adults were surveyed. Results are reliable within ± 4.7 per cent at the 95 per cent confidence level. The response rate was 78 per cent. The data is collated from 4-H programs and Agriculture and Rural Development.