



# ***Poultry Research Funding in Canada***

**Workshop October 1, 2008**

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## **REPORT – KEY MESSAGES AND FINDINGS**

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### **1. INTRODUCTION**

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The Canadian Poultry Research Council (CPRC) organized a workshop focused on poultry research challenges in Canada. The stated objectives of the workshop were:

- To clarify the scope and orientation of current poultry research funding in Canada.
- To clarify the current mix/balance of public/private research investment in Canada.
- To identify opportunities for collaboration and increased leverage of funding for poultry research.
- To identify gaps in funding poultry research priorities.
- To discuss how funding gaps might be filled.
- To clarify the role CPRC and other agencies could play in ensuring appropriate collaboration/leveraging.

The workshop included approximately 30 participants from across Canada representing a variety of organizations with an interest in poultry research. The full agenda and a list of participants at the event are in Appendix A and B, respectively.

The following is a summary report from the workshop. The report includes a very brief précis of presentations, as well as a summary of key discussion points raised. Copies of the full presentations are in Appendix C. The report is intended as a record of the meeting to be used by the CPRC and other stakeholders in advancing the poultry research agenda in Canada.

#### **WELCOME FROM THE CHAIR**

Chris den Hertog, CPRC Chair, welcomed participants to the session. Mr. den Hertog thanked participants for investing their time and invited them to be open and frank during the discussions. He reviewed the workshop objectives and highlighted the importance and challenge of ensuring sustainable, long-term funding for poultry research in Canada.

#### **THE IMPORTANCE OF POULTRY RESEARCH IN CANADA**

Roger Buckland of CPRC presented a history of poultry research in Canada. He cited 2 reports that documented a significant decline in the level of poultry research in Canada. Dr. Buckland offered perspectives on the value of poultry research capacity, especially that pertaining to Canada-specific needs, and the importance of training our next generation of researchers and industry professionals. He pointed out that the research environment has changed dramatically over the past 40 years in Canada. Today new approaches are required; industry must take the lead in ensuring the appropriate partnerships are in place.

In a discussion that followed Dr. Buckland's presentation, participants offered the following views:

- It would be useful to have American and historical Canadian benchmark research investment data.
- There is an opportunity to collaborate across provincial and national agencies in Canada.
- Poultry research is critically important for government and industry to ensure a vibrant, economically viable poultry community in Canada.
  - To ensure the industry remains competitive, and grows.
  - To maintain food security in Canada
  - To promote and develop food for health
- On the question of why poultry research funding has decreased over time, it was noted:
  - That public perceptions have changed in Canada because we have an abundance of relatively inexpensive food
  - There is competition in Canada for research dollars, not only within agriculture, but also across other sectors of the economy (e.g. steel, mining, etc.)

## **2. FOCUS ON CURRENT FUNDING**

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Gord Speksnijder of CPRC outlined the results of a pre-workshop survey that focussed on current research in Canada. The following key points were noted:

- A relatively small proportion of total “public” research dollars invested in agriculture in Canada goes to the poultry sector.
- There is an opportunity to increase leverage of industry dollars for research with other sources.
- While there are several scholarships and awards for graduate students, most funders of poultry research support graduate students indirectly through research grants
- Consolidation of grant review processes has the potential to increase efficiencies by reducing duplication of both administrative and research effort, but any such activity would need to maintain the goals and objectives of different funding organizations. Alberta’s Agriculture Funding Consortium may serve as a good model
- Insisting that industry funds be matched by other (especially government) sources was deemed a good way to access government funding for research and maximize industry’s investment in research. Partnering with the Natural Sciences and Engineering Research Council (NSERC) also provides access to an excellent peer review process. . Approval from funding partners can, however, slow the review process.
- There are many gaps/issues regarding the way poultry research is funded in Canada.

Survey participants offered ideas on how to increase the level of poultry research funding in Canada including:

- Demonstrate the value of research
- Strengthen the link between government and industry
- Demonstrate to government that industry is committed to research but needs government help
- Take advantage of funding for government priorities when they align with industry priorities (e.g. food safety)
- Demonstrate that researchers are willing/able to perform work of benefit to industry
- Achieve buy-in from all aspects of food chain

- Ensure that federally sourced funds keep pace with industry contributions
- Analyze successful programs in other commodities etc.

During the discussion that followed Gord's presentation, several participants requested more specific data regarding the level of poultry research in Canada in relation to poultry's share of the total value of agricultural production in Canada.

### **FUNDING ISSUES**

On the question of funding issues that need to be addressed, workshop participants offered the following:

- Industry needs to articulate its end point/goal – if stakeholders have a common goal, they can speak with a united voice.
- How to get more people with an interest engaged and communicating – along the value chain including processing.
- Matching funding at the project level and matching funding more strategically at the program level.
- How to balance long-term research needs with shorter term needs.
- Need to articulate the value of poultry research to government, industry and consumers.

### **OPPORTUNITIES TO INCREASE FUNDING**

When asked about the opportunities for increasing poultry research funding in Canada, participants offered the following:

- Have a national organization that would administer poultry research funds
- Leverage targeted government funding programs that are available
- Provide incentives to industry – demonstrate value of research investment, that dollars will be matched etc.
- Increase producer contributions.
- Access Canada Revenue Agency (CRA) research tax credits.
- Look at other models:
  - E.g. Cooperative Research Centres in Australia

### **THE DAIRY FARMERS OF CANADA**

Michael Hall, a dairy farmer from Eastern Ontario and research coordinator for the Dairy Farmers of Canada (DFC), shared the dairy sector experience in research funding. Mr. Hall reviewed the key factors in funding research in the sector. He highlighted:

- The leadership role played by producers in setting national research priorities.
- That the dairy industry, through the DFC, speaks with “one voice”.
- The importance of cooperation between government, academia and industry.
- That matching funding is a prerequisite for DFC funded projects.

Mr. Hall outlined DFC funding programs, associated priorities and outcomes. The four key programs include:

- Production Expert Advisory Committee (PESAC).
- DairyGen.
- Canadian Bovine Mastitis Research Network (CBMRN).
- Testing Research results on pilot farms.

Mr. Hall went on to emphasize the importance of knowledge transfer and information sharing with industry, government and international interests. Here he mentioned the partnership arrangement DFC has with Agriculture and Agri-Food Canada (AAFC) to advance technology transfer.

Looking to the future, Mr. Hall shared the notion of “research clusters” being proposed by AAFC and that DFC are exploring this opportunity with AAFC.

#### **MAKING OUR RESEARCH DOLLARS DO MORE**

Roger Buckland touched on NSERC “Discovery Grants” designed to support University researchers, as well as the AAFC program for funding their scientists. He highlighted the matching fund programs of both NSERC and AAFC. Dr. Buckland indicated CPRC’s partners of first choice are AAFC and NSERC through these programs. It is CPRC policy that applicants secure a matching fund ratio of at least 1:1.

Dr. Buckland went on to share the CPRC experience to date: CPRC has invested approximately \$1 million of industry money over 4 years and has achieved a matching ratio of 3.8:1. Dr. Buckland hypothesized that if the total of approximately \$1.75 million of funds currently invested by the public sector annually in Canada into poultry research could be leveraged 2:1, then we would have \$3.5 million, which is substantially more than current levels.

#### **THE RESEARCHERS PERSPECTIVE**

Hank Classen from the University of Saskatchewan reviewed poultry research funding sources in Canada including:

- Government
  - NSERC
    - Discovery Grants
    - Collaborative Research and Development (CRD) grants
    - Strategic Network Grants.
    - Industrial Research Chairs.
    - Post-graduate Scholarships.
    - Research partnership Agreements.
  - Provincial Governments.
- Industry
  - CPRC
  - PIC
  - Poultry Producer/Processor Organizations.
  - Other Associate Industry Groups

Dr. Classen reviewed the focus as well as relative merits and deficiencies of each mechanism. He suggested that CPRC could work with NSERC to a greater degree on behalf of the Canadian poultry sector and take advantage of NSERC funding through its Strategic Network Grants and Industrial Research Chairs programs.

Dr. Classen reviewed CPRC strategic objectives and suggested that it is, in general, achieving its stated objectives, however he suggest the following:

- There is potential for CPRC to play a larger leadership role in poultry research.

- While CPRC funding has increased federal research funding, there may be opportunity to dedicate more research dollars to poultry in Canada.
- CPRC should set aside a larger portion of its funding for “ad-hoc” proposals that don’t necessarily align with stated priorities, as well as increase the transparency by which these funds are awarded.
- CPRC could do a better job of disseminating and sharing results. This shortcoming may be a function of a lack of infrastructure.
- There is great value in bringing together industry and researchers.

In terms of CPRC funding, Dr. Classen suggested that:

- The current level of project funding may not be adequate to reflect increasing costs of research.
- There is a need to balance short term and long-term research needs. There can be huge benefits reaped from basic (curiosity driven) research.

Dr. Classen listed other potential opportunities for CPRC:

- Work with support industries and organizations to enhance value of producer dollars.
- Promote succession planning at Universities and other research organizations.
- Support young researchers.
- Promote/facilitate multi-disciplinary research.

### **3. FUNDING AND PARTNERSHIP OPPORTUNITIES**

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Workshop participants, by way of table group discussions and plenary sessions, articulated ways to increase both industry and public sector support for poultry research. Key points are listed below:

#### **INCREASING THE LEVEL OF INDUSTRY SUPPORT FOR POULTRY RESEARCH**

- Producer funds need to be allocated to both applied and leading edge research.
- Need to maintain momentum by attracting new scientists.
- Need mechanism to collect money from producers – need to sell the value of research to producers - perhaps use a newsletter.
- Demonstrate efficiencies that can be gained by coordinating efforts.
- Encourage matching through policy – require matching.
- Consider targeted requests for proposals to ensure research of interest to industry is conducted.
- Encourage collaboration among researchers – multi-disciplinary approach.
  - Networks.
  - Consortia.
- On farm pilots.

#### **INCREASING THE LEVEL OF PUBLIC SECTOR SUPPORT**

- Ideas generated for industry also appropriate here.

- Demonstrate value of leading edge research (tends to be longer term).
- Perhaps a direct lobby effort for poultry.
  - Need clear, consistent message from industry
  - Need to communicate societal benefit of poultry research (competitiveness of industry, food safety, functional foods etc.)
- How to engage provincial governments?
- Continue to lever facilities and infrastructure and to maximize their use.
- Need to demonstrate to the federal government how we are collaborating/working together – industry/academia, etc.

### **OPPORTUNITIES TO COLLABORATE / STRUCTURAL CHANGES**

Given the points made during the day's discussions, workshop participants discussed the significance of opportunities for enhanced collaboration and considered what structural changes would be required to enhance industry and public sector support for poultry research in Canada.

There was consensus among the group that CPRC should take on a greater role as the national coordinator and voice for Canadian poultry research. Details of how this role could be filled were perhaps beyond the scope of the workshop, however, there are models from which the Canadian poultry sector can learn. For example, Alberta's Agriculture Funding Consortium is a good example of consolidation among different funders. Similarly, the DFC model is one that could serve the Canadian poultry sector very well.

### **NEXT STEPS**

CPRC's immediate task is to further develop its strategic plan and detail the role it will play in maximizing the Canadian poultry sector's collective investment in poultry research. Some activities that might be included in such a role are:

- Act as an "umbrella" organization that facilitates communication among the various funders (public and private) of poultry research in Canada
- Develop an administrative infrastructure that provides researchers with a "one stop shop" that gives them access to research dollars from a variety of sources thereby reducing administrative effort
  - Common application form
  - Common reporting system
  - Common deadline for applications
  - A committee of initial reviewers available to all funders
- Taking a leadership role in promoting the Canadian poultry sector's efforts to support research, and to demonstrate the value of that research to industry, government, and consumers.





**List of participants**

<b>Organization</b>	<b>Name</b>
Agriculture and Agri-Food Canada	Jacques Surprenant
Alberta Agricultural Research Institute	Stan Blade
Alberta Agriculture and Rural Development	Cornelia Kreplin
Alberta Egg Producers	John Richter
Alberta Livestock Industry Development Fund	John Bell
Canadian Hatching Egg Producers	Chris den Hertog
Canadian Hatching Egg Producers	Viki Sikur
Canadian Poultry and Egg Processors Council	Erica Charlton
Canadian Poultry Research Council	Gord Speksnijder
Canadian Poultry Research Council	Roger Buckland
Canadian Turkey Marketing Agency	Colleen McElwain
Chicken Farmers of Canada	Jennifer Gardner
Chicken Farmers of Canada	Jacob Middelkamp
Chicken Farmers of Ontario	Murray Opsteen
Dairy Farmers of Canada	Michael Hall
Egg Farmers of Canada	Helen Anne Hudson
Intersol Group	Warren Wilson
La Fédération des producteurs d'œufs de consommation du Québec	Myriam Robillard
Les Éleveurs de volailles du Québec	Dany Provençal
Natural Sciences and Engineering Research Council	Doris Braslins
Nova Scotia Agricultural College	Derek Anderson
Ontario Ministry of Agriculture, Food and Rural Affairs	Al Dam
Ontario Ministry of Agriculture, Food and Rural Affairs	Anna Formusiak
Poultry Industry Council	Tim Nelson
Saskatchewan Chicken Industry Development Fund	Timothy Keet
Saskatchewan Turkey Producers Marketing Board	Joni Rynsburger
Syndicat des producteurs d'œufs d'incubation du Québec	Brigitte Dubois
Syndicat des producteurs d'œufs d'incubation du Québec	Robert Massé
Université Laval	Michel Lefrançois
University of Saskatchewan	Hank Classen

**Workshop Presentations**

**Importance of Poultry Research for Canada**

By  
Roger Buckland  
Workshop October 1 2008  
Poultry Research Funding in Canada

**Decline in Canada's Capacity in Poultry Research**

- Needs and Resources of Canada's poultry Sector: 1999 by Roger Buckland - Results of National Surveys and a National Workshop Nov 1998.
- Poultry Research in Canada: Perspectives on the Role of AAFC – *Prepared by CPRC as background material for the “National Agriculture Science Symposium, Gatineau, Quebec, November 22 – 23, 2005*

**Importance of Poultry Research for Canada**

- Have seen that decline is well documented
- Next-Why is research vital to a healthy Canadian poultry sector?

**WHY?**

- A vibrant Canadian poultry research community is required to maintain an efficient, sustainable and prosperous Canadian Poultry industry!

**HOW?**

- How does research maintain an efficient, sustainable and prosperous Canadian Poultry industry?

**Strong Contingent of Poultry Researchers**

- Required to have human and physical resources for ongoing poultry research
- Required to have human and physical resources to call upon in times of emergency

## Research Issues of National and Regional Importance

- Canada's climate and marketing system are different from our neighbor, the USA
- Different regions of Canada present different challenges and opportunities to our industry located in those regions

## Training

- A strong well supported community of poultry researchers is required to train both our next generation of researchers and professionals to work directly in our industry
- Training at the M.Sc. and Ph.D level are dependent on a one on one relationship between the student and professor

## What can we do to ensure a strong Canadian poultry research sector ?

- Researchers have chosen research as a career. They want to have a good career
- They need the resources to be able to have a successful career = funding and facilities
- They must perform within the terms of their employer
- We in the poultry sector must provide the financial resources required for them to have a productive career in poultry research

## What can we do to ensure a strong Canadian poultry research sector ?

- We are in competition with other allied sectors in being able to provide sufficient resources on an ongoing bases so that researchers can have a productive career in poultry research
- The Canadian poultry industry must take the leadership role in ensuring these resources are available
- **The world has changed over the last 40 years**

## SUMMARY

- Canada's capacity in poultry research has declined dramatically
- Canada requires a solid contingent of poultry researchers to address national & regional issues, provide a source of ongoing research, provide the intellectual resources needed in times of emergency and to provide training
- To achieve this poultry research in Canada must be supported and the Canadian industry must take the lead
- **The world has changed over the last 40 years**

THANK YOU

## The Current Picture

### Funding Poultry Research in Canada

Workshop  
October 1, 2008  
Ottawa



## Questionnaire

- sent to 73 organizations
  - Federal & provincial government
  - Industry
  - Boards



## Questionnaire

- Type of organization
- Annual research budget
- Leverage
- Grad student support
- Consolidation
- Gaps in how research is funded
- How increase funding?



## Results

- 16 organizations completed survey (another 6 indicated funding budgets)
- \$385 million total ag research
- \$3.3 million total poultry research

[summary](#)



## Leverage

- Many industry organizations (boards) were unaware of the degree to which their funds were levered with other sources
- For organizations that were aware, leverage of funds for research non-industry sources was about 3:1



## Grad students

- Many organizations indicated support for grad students indirectly through grants
- Some programs for direct support:
  - NSERC has a scholarship program for all sectors
  - CPRC provides one supplement per year to a new poultry science student holding an NSERC scholarship
  - CBHEPA has a scholarship available to students doing broiler breeder research
  - CTMA (and others) contribute to the Kenneth E. Crawford Scholarships at the University of Guelph
  - May be others



## Consolidation

- Different views on consolidating grant review process

### Pro

- reduce duplication
- save researcher time
- Alberta Funding Consortium good example of success
- efficient review process

### Con

- unlikely to work
- consolidating grant application OK, but should not consolidate review process
- goals of many organizations are different



## Matching

- Different views on whether we should insist on matching industry funds

### Pro

- good way to access gov't funds
- many projects are too expensive to be funded by a single source
- NSERC provides and excellent peer review process

### Con

- relatively few sources of matching funds may limit research
- could limit or artificially steer priorities
- could slow process



## Gaps

- lack of coordination among funders
- no discretionary matching funds from gov't
- need greater emphasis on turkey research
- no long-term (5 year+) funding exists
- need to think about "outcomes" in addition to research priorities
- decreasing focus on production-based research vs. priority areas (e.g. food safety)
- limited resources – difficult to react to emerging issues in addition to established priorities
- little work on economics of industry



## How increase funding?

- Demonstrate value of research
- Strengthen link between gov't and industry
- Demonstrate to gov't that industry is committed to research but needs gov't help
- Take advantage of funding for gov't priorities when they align with industry priorities (e.g. food safety)
- Demonstrate that researchers are willing/able to perform work of benefit to industry
- Buy-in from all aspects of food chain
- Federally sourced funds need to keep pace with industry contributions
- Analyze successful programs in other commodities etc.



**Thank you for your participation**



## ***Dairy Cattle Research: DFC Priorities and Activities***

Presented by Michael Hall  
October 1, 2008

### **Summary of Presentation**

- Investing in Research: History
- Key factors and advantages
- Investing in one agency
- Role and advantages of matching programs
- DFC involvement in research
- DFC investment in dairy research
- Application of research results on farms
- Knowledge transfer and information sharing
- Future DFC involvement in dairy research

### **Investing in Research: History**

- Federal government reduced involvement in dairy in mid-90s
- DFC created dairy production research program to influence research conducted in Canada: Production Expert Scientific Advisory Committee (PESAC)
- Model based on the Expert Scientific Advisory Committee (ESAC) – DFC nutrition research program

### **Key factors and advantages of being involved in research programs**

- Leadership role
- Producer direction and input on research issues of critical importance to their industry
- Producer involvement at each step:
  - identification of research priorities
  - selection and funding of specific projects
  - transfer of knowledge and implementation of results

### **Key factors and advantages of being involved in research programs**

- Cooperation among industry, governments and academia to ensure:
  - important issues are addressed
  - quick and easy access to results and information
- Brings academia closer to the industry

### **Advantages for all provinces and sectors along the chain to buy into one funding agency**

- Pooling of investments that can influence Canadian research priorities
- One voice, one direction
- Increase collaboration among researchers across Canada and sharing of information

### **Roles and advantages of matching programs such as NSERC, AAFC**

- Work in collaboration with third party institutions to ensure fair and credible research programs and application of results
- Pool resources and matched funding
- Maximize dollars into targeted dairy research
- Cooperation among industry, governments and academia to the benefit of all Canadians

### **DFC Research Funding**

- PESAC
- DairyGen Council of CDN
- Canadian Bovine Mastitis Research Network (CBMRN)
- Testing Research Results on Pilot Farms

### **PESAC**

- Program started in 1996
- Review and evaluation of dairy production research projects through PESAC - DFC'S Production Expert Scientific Advisory Committee
- Comprised of dairy producers, industry people and scientific researchers

### **PESAC: Research Priorities**

- Realize greater efficiency
- Improve animal health and welfare
- Enhance production methods that respect the environment
- Improve dairy research facilities in Canada
- Make funds available to genetic improvement and breeding programs

### **Production Expert Advisory Committee (PESAC) Statistics**

- Since 1996, approximately 260 research applications reviewed by PESAC
- Close to 100 projects approved
- Approximately \$9 million invested in production research
- All matched by government, industry and academic institutions

### **DairyGen**

- Program started in 1999
- Partners:
  - Artificial Insemination industry
  - Dairy Breeds Associations
  - Milk Recording Organizations
- Review and evaluation of dairy production research projects through DairyGen Committee, comprised of representatives of all partners and research community

### **DairyGen: Research Priorities**

- Development of genetic means to build a more profitable cow
- Development of genetic means to optimize valued-added compounds in milk
- Improvement of animal health and disease resistance through genetic perspectives
- Increasing the accuracy of genetic evaluation methods and models
- Developing novel ideas and new technologies related to dairy cattle improvement of potentially beneficial impact

### **DairyGen Statistics**

- Since 1999 about 100 research applications reviewed by DairyGen
- Over 50 projects approved
- About \$3.4 million invested specifically in genetics research
- All matched by government, industry and academic institutions

### **PESAC and DairyGen Statistics**

- More than 150 researchers working on dairy issues
- About 150 students, technical and research assistants were trained in dairy
- More than 225 scientific articles and hundreds of abstracts and lay summaries produced
- Findings presented at over 150 conferences in Canada and throughout the globe

### **Canadian Bovine Mastitis Research Network (CBMRN): How it started?**

- An idea of Québec Dairy Producers and Researchers
- Started with structural funding from Valorisation Recherche Québec in 2000
- Received funding from Natural Sciences and Engineering Research Council of Canada in 2006

### **CBMRN:Funding**

- Leverage factor of dairy industry contribution:
  - \$7.7 million over 5 years
  - \$1.0 million dairy industry
  - Leverage factor of 7.7

### **CBMRN: Statistics**

- 34 Researchers and Collaborators
- 10 Research Partners
- 14 Financial Partners
- 4 labs using standardized methods
- 60 Students (2006-2008)
- 10 active research projects
- 22 participants in national and international conferences (2007-08)
- 14 scientific papers published (2007-08)

### Testing Research Results on Pilot Farms

- Program started in 2005
- Projects carried out on dairy farms to validate the benefits of the latest research findings
- Pilot farm network program has a pool of 300 volunteer farms
- 1 project is finished and 2 are ongoing

### Impact of research results on farms (PESAC)

- Animal comfort and welfare
  - Housing design to improve animal health and comfort
- Nutrition
  - Feeding strategies to improve feed efficiency, health and milk composition

### Impact of research results on farms (PESAC)

- Health
  - Risk assessment and prevalence of diseases
  - Disease and parasite detection methods
  - Vaccine development (mastitis)
- Reproduction
  - Oestrus synchronization protocols
  - Early pregnancy recognition techniques
  - Feeding strategies to improve reproduction performances

### Impact of research results on farms (DairyGen)


- Improvement in performance of Canadian dairy cattle
- Improvement of accuracy of Canadian genetic evaluations
- Development of laboratory techniques to allow the genetic selection through genomics (genes selection)
- Development of new genetic evaluation methods

### Knowledge Transfer and Information Sharing

- Canadian dairy research activities generate a lot of results to be transferred to industry as quickly as possible
- Results are transferred to producers and professionals through the Canadian Dairy Research Coordinator hired by AAFC (position co-funded by DFC and CDN)
- Main responsibilities:
  - To develop and maintain an inventory of :
    - Canadian researchers involved in dairy research
    - Research projects funded by the main funding agencies
    - Communication of Canadian dairy research results
  - To share the information to the dairy industry

### Highlights in Canadian Dairy Cattle Research

- DFC, CDN and AAFC worked together to produce, for the third year in a row, a publication called Highlights in Canadian Dairy Cattle Research
  - Document is meant to:
    - showcase the results of research published by Canadian Researchers
    - encourage Canadian industry stakeholders to consult various scientific journals
  - Copy located on [dairygoodness.ca](http://dairygoodness.ca)



**Future DFC involvements in dairy research**

- Agriculture and Agri-Food Canada is planning to develop research clusters
- One of them might include the Dairy Industry
- The process is not well defined yet
- The Industry will meet on October 30th

## Making our Research Dollars Do More

### LEVERAGE

Lunch Time discussion  
Workshop October 1, 2008  
Poultry research Funding in  
Canada  
by  
Roger Buckland

## Leverage

- Webster's New World Dictionary:  
"3. Increased means of effecting an aim"  
Our aim is research thus **leverage** for us is  
increased means of effecting poultry  
research

## Research Support

- I will restrict my comments to programs at the national level, by way of example, even though it is recognized that there are provincial and regional programs to support research

## Research Support

- At the National level the Natural Sciences and Engineering Research Council (NSERC) has a core program of "Discovery Grants" to support research by university professors across all disciplines. Agriculture and Agri-Food Canada (AAFC) has a similar program to support researchers within AAFC.

## Research Support

- In addition both NSERC and AAFC have matching grant programs specifically designed for working with industry
- In both cases these serve to lever industry dollars
- the objective being to encourage Canadian industry to invest in research and Canadian research infrastructure

## CPRC Partners of First Choice

- The partners of first choice for CPRC, but by no means exclusively, are NSERC and AAFC for researchers who are eligible for funding from these agencies respectively.
- The policy of CPRC is that no funding is provided, even if the proposal is approved, unless the applicant has obtained matching funding at a ratio of at least 1:1
- When CPRC has approved a proposal for funding, CPRC staff will work with the applicant to obtain matching funds

## Specific Partnership Programs

- NSERC-Collaborative Research and Development (CRD) Grants program This provides a 1:1 match. It has a relatively good success rate in the order of 60% to 70%. In addition the NSERC review process associated with this program provides a sound peer review of the proposal.

## Specific Partnership Programs

- AAFC- They have the Matching Investment Initiative (MII) program designed to partner with industry by providing matching funds at a 1:1 ratio.

## CPRC Experience to Date

- To date over 4 years CPRC have put approximately 1 million dollars of industry money into poultry research
- Through the matching programs just described and partnerships developed with other partners the actual matching ratio has been 3.8:1
- Thus the 1 million dollars of CPRC has resulted in over 5 million dollars of research funding for poultry research

## WHAT IF

- As shown this morning the Canadian poultry industry puts approximately 1.75 M \$ per year in poultry research
- **IF** these funds could be matched 2:1 through mandatory matching of \$ and in kind (required by all industry funding agencies) and by developing partnerships then our annual support for poultry research would be 3.5 M \$ per year

THANK YOU

## The Researcher's Perspective – Current funding availability, application processes, sources?

**Hank Classen**  
Department of Animal and Poultry Science  
University of Saskatchewan  
Saskatoon, SK, Canada S7N 5A8



1

## Funding sources

- **Governmental**
  - NSERC
  - Provincial governments / other
- **Industry**
  - Primary poultry producers / processors
    - CPRC
    - PIC
    - Provincial marketing boards
  - Associated industry sources
    - Commodity groups
    - Private companies



2

## NSERC Discovery Grants

- Competitive with more basic and long term science focus
- Freedom to pursue topics of academic interest (curiosity based)
- Funding amounts tend to be relatively small
- Individual scientist initiative
- Ensure young scientists are in place to apply



3

## NSERC Collaborative Research and Development (CRD)

- Supports well-defined projects undertaken by university researchers and private-sector partners
- Cover up to half of the total eligible direct project costs
- Must include solid science component
- Valuable source of funding



4

## NSERC Strategic Network Grants Program – Untapped Potential?

- Increase Canada's global competitiveness
- Ensuring and maintaining a safe and high-quality food production system
- Development of novel technologies or products that can be applied to food quality and safety, functional foods and nutraceuticals, novel bioproducts, and aquaculture
- Potential for CPRC leadership and multidisciplinary approach



5

## NSERC Chairs and Scholarships

- **Industrial Research Chairs**
  - Achieving critical mass required for a major research endeavour in science and engineering of interest to industry; and/or
  - Assist in the development of research efforts in fields that have not yet been developed in Canadian universities but for which there is an important industrial need
- Role for CPRC? Work with Universities



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## NSERC Chairs and Scholarships

- **Industrial Research Chairs**
  - Achieving critical mass required for a major research endeavour in science and engineering of interest to industry; and/or
  - Assist in the development of research efforts in fields that have not yet been developed in Canadian universities but for which there is an important industrial need
  - Role for CPRC? Work with Universities
- **Industrial Postgraduate Scholarships (IPS) Program provides financial support for highly qualified science and engineering graduates**

## NSERC Research Partnership Agreements (RPA)

- Aims to build strong linkages between the private sector and researchers in universities and federal institutes and to create synergy among the partners
- ~~Agriculture and Agri-Food Canada (AAFC)/NSERC Research Partnerships Program~~
  - ~~The partnership agreement between Agriculture and Agri-Food Canada (AAFC) and NSERC ended on March 31, 2007~~
- **Lost potential for matching**

## Provincial governments / other

- **Variable support from provincial governments**
  - May be less supportive of research in supply managed industries
- **Matching industry funding often a requirement**

## Industry funding

## Canadian Poultry Research Council Objectives

- To provide a focal point for poultry research in Canada
- To secure additional and/or matching funding for poultry research
- To establish national research priorities
- To assess research proposals and select researchers
- To disseminate research results
- Have these objectives been met?

## To provide a focal point for poultry research in Canada

- Without question, CPRC is identified as a focal point for poultry research
- Potential for larger and stronger role

### To secure additional and/or matching funding for poultry research

- Increased CPRC funding has increased Federal research funding
  - More coordinated approach than prior to CPRC
- However, sources of federal funding remain the same as available in the past – no money specifically set aside for poultry research
- How does this compare to other types of agricultural research?



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### To establish national research priorities

- Important contribution to Canadian Poultry Research
  - Need to continue this mandate
- Research funding outside priority areas
  - No more than 10% of the CPRC research budget may be allocated to support ad hoc proposals annually
  - Ad hoc basis of this funding
  - Increase proportion of funding directed towards this area, establish call for such proposals with other Letters of Intent



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### To assess research proposals and select researchers

- Generally well done
- Increase transparency of how selection committee is determined



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### To disseminate research results

- According to author's experience, this area has had more limited success
- Periodic meetings are useful for development of networks and communicating research from various institutions
- Communication a key to success



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### Limitations of CPRC funding

- Level of funding may not be adequate for important research initiatives



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### Basic annual research budget

Expense	Amount (\$)
Technician	45,000
Graduate Student	20,000
Materials and space	20,000
Travel	2,000
Publication	3,000
Overhead (15%)	13,500
<b>TOTAL</b>	<b>103,500</b>



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### Basic annual research budget

Expense	Amount (\$)
<b>Technician</b>	<b>45,000</b>
Graduate Student	20,000
<b>Materials and space</b>	<b>20,000</b>
Travel	2,000
Publication	3,000
<b>Overhead (15%)</b>	<b>13,500</b>
<b>TOTAL</b>	<b>103,500</b>



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### Basic annual research budget

Expense	Amount (\$)
Graduate Student	20,000
Materials	15,000
Travel	2,000
Publication	3,000
<b>TOTAL</b>	<b>40,000</b>



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### Limitations of CPRC funding

- Amount of funding
- Long and short term funding
  - Research tends to be applied and in some cases a reaction to current problems
  - Longer term research and research that is curiosity driven (basic) is more risky but has larger potential economic payback
    - Investment strategy analogy
  - Requires balance
  - Longer term research funding (5 years?)
    - Contribute to complex problems in poultry industry that can't be answered in 2 to 3 year grants



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### Other CPRC opportunities

- Working with supply industries to enhance value of producer dollars
- Succession planning at Universities and other research organizations
  - Promote maintenance of poultry positions
  - Mentoring young faculty by introduction to industry and industry research needs
- Recognizing need for young researchers to establish research programs (patience and support)
  - Partnership with industry
  - Make poultry research attractive to non-poultry discipline specialists



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### Other CPRC opportunities

- Facilitate multidisciplinary research
  - Concept has to be more than group of like minded individuals
  - Diversity of expertise that brings a new vision to research and much larger potential for success



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### Poultry producer / processor organizations

- Provincial producer boards
  - Regional focus
  - Potentially less money due to CPRC commitment
- Associated industry sources
  - Commodity groups
    - Objective of increasing value of commodity
  - Private companies
    - May have very specific requirements (contractual obligations)
    - Less benefit to poultry industry



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