THE CHICKEN FARMER

Volume 12, Issue 1, February 2010

LOOKING BACK – LOOKING FORWARD

2009 was an uneventful year for the Doha Round of multilateral trade negotiations. Numerous efforts made by Pascal Lamy, Director General of the WTO, and by the handful of countries heavily engaged in the negotiations (Australia, New Zealand and, occasionally, Brazil or the European Union) barely managed to keep the round alive.

A major reason for the lacklustre year is the new U.S. Administration's preoccupation with their domestic agenda. The Obama Administration has turned most of their attention inward as they concentrate on recovering from the economic downturn and on healthcare reform.

After the summer break, negotiators returned to Geneva to work on schedule of commitments templates and outstanding issues in negotiations, but despite that glimmer, no real progress was achieved by year end. Scheduling is a technical area, and consists of exactly how WTO members are going to schedule their commitments once a modalities agreement is reached. Discussions related to "unfinished business" and contentious issues were based on the December 2008 draft modalities text, which is still perceived by many to be the basis for further negotiations, despite its shortcomings.

To close out the year, a "housekeeping" Ministerial Conference was held in Geneva, with no mandate to discuss Doha Round related matters. The 7th WTO Ministerial Conference took place in Geneva between November 30th and December 2nd.

CANADA LAUNCHES FREE TRADE NEGOTIATIONS WITH THE EU

The same cannot be said about Canada's 2009 bilateral agenda. The year was very busy! Canada remained active in 2009 with no less than eight bilateral free trade initiatives being either signed or launched. The year's highlight was the launch of a Comprehensive Economic and Trade Agreement (CETA) with the European Union.

In May, Canada officially launched bilateral negotiations with the European Union for concluding a CETA, one that goes beyond a traditional free trade agreement to include substantive provisions in such areas as: trade in services, investment, government procurement and the movement of labour. The EU is Canada's second largest trading partner after the United States, with a 10% share of bilateral trade (imports plus exports) in Canada's total trade (trade with the U.S. accounts for 66% of Canada's total trade).

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FOR A WEEKLY UPDATE ON THE WTO TRADE NEGOTIATIONS, VISIT THE CFC WEBSITE AT:
WWW.CHICKEN.CA
AND CLICK ON
GENEVA WATCH.

Chicken Farmers of Canada
Les Producteurs de poulet du Canada

Publication Mail Agreement Number 40063043

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In 1995, Canada had a trade deficit with the EU of about $6 billion, which has grown over time to $18 billion in 2008. It is hoped that this agreement will open new markets for Canadian exporters and bring more balance to this trade relationship.

At this time, supply management is not officially off the negotiating table. However, the Canadian government has repeatedly affirmed its strong support for the Canadian dairy, poultry and egg sectors and indicated that as negotiations advance, Canada would ensure there are no tariff cuts to over quota tariffs and that market access for European dairy and poultry products will be considered part of Canada's overall international legal obligations (in the case of chicken, imports represent 7.5% of the domestic market).

NEW FREE TRADE AGREEMENTS IN PLACE

Another significant development this past year was the July entrance into force of the free trade agreement (FTA) with EFTA countries (the European Free Trade Association – Norway, Switzerland, Iceland and Lichtenstein). Trade with these four countries represent 1.4% in total Canadian trade. Canada's trade deficit increased from $2 billion in 1995 to $5 billion in 2008. Another FTA with Peru entered into force in August.

FREE TRADE AGREEMENTS IN PROGRESS

In 2009, Canada also completed negotiations and signed FTAs with two other countries: Jordan, in June, and Panama in August. In September, negotiations on a possible FTA with Ukraine were launched, as was an exploratory process for assessing the merits of an FTA with Morocco. In November, Canada re-engaged with India with the view of possibly negotiating a Comprehensive Economic Partnership Agreement.

For the time being, the two parties agreed to set up a joint study group to look at key sectors of interest and the possible parameters of an agreement.

Finally, the FTA with Columbia, signed back in November 2008, was intensely debated in the House of Commons as part of the final approval process.

Free Trade Agreements

in force	October 1987	United States
	January 1994	Mexico
	January 1997	Israel
	July 1997	Chile
	November 2002	Costa Rica
	July 2009	EFTA
	August 2009	Peru
signed	November 2008	Columbia
	June 2009	Jordan
	August 2009	Panama
launched	October 2001	Singapore
	November 2001	Central America (4 countries)
	July 2005	Korea
	June 2007	Dominican Republic
	July 2007	CARICOM
	May 2009	European Union (27 countries)
	September 2009	Ukraine
exploring	June 2009	Morocco
	November 2009	India

All these trade initiatives fit into Canada's overall objective of opening up new markets for Canadian exporters and maintaining a level playing field with Canada's competitors who already benefit from preferential relations with these markets.

THE WTO IN 2010

The WTO's work plan for 2010 was first established at the Ministerial Conference at the beginning of December 2009, where all ministers reaffirmed the need to conclude the Doha Round in 2010 and asked for a stock-taking exercise to take place no later than the end of March 2010.

After the mid-December WTO General Council meeting, WTO Director General, Pascal Lamy, indicated that a combination of four elements is required to arrive at the so-called stock-taking meeting scheduled for the end of March:

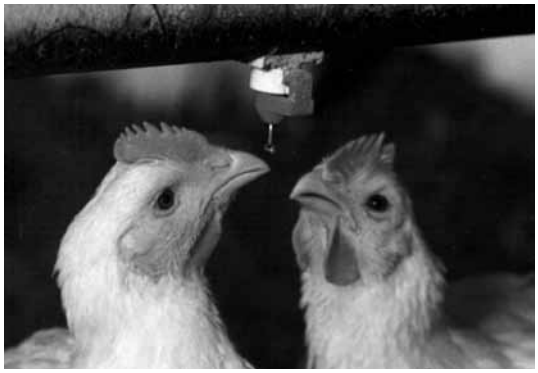
> First, WTO members must intensify the bilateral, trilateral and quadrilateral meetings early in 2010 in order to feed the multilateral process; in this context, Lamy was primarily targeting the U.S. which has yet to engage key emerging developing countries (like India, Brazil, China or South Africa).

> Second, the chair of each negotiating group needs to resume its activities starting from the end of January and running through to March; Agriculture Chairman, David Walker, plans to recommence his consultations on outstanding issues (such as the special safeguard mechanism for developing countries (SSM), sensitive products, tariff simplification, tropical products and preferences erosion) with a 2-week consultation period at the beginning of February and to hold another "fortnight" the first week of March; in parallel, Walker will also resume discussions on scheduling at the end of January.

> Third, the continuous participation of senior officials is essential; Lamy wants two senior officials meetings to take place, one in February and the other one in March, in order to facilitate senior officials' substantive engagement.

> Finally, the last week of March 2010 will be reserved for the so-called "stock-taking" meeting, with the level of participation (ministers or senior officials) to be defined during discussions in early 2010.

THE IMPORTANCE OF MEASURING WATER INTAKE IN CHICKEN PRODUCTION



It is well known that water makes up 80% of the blood in the body. It plays a role in regulating body temperature and in helping digestion and nutrient absorption.

The daily water intake requirement for chickens depends on various factors such as: weight of the bird, air temperature in the barn, relative humidity, time of day, diet composition, water quality, water temperature and the general health of the birds.

The barn environment is directly linked to the birds' water intake. Research has demonstrated that in 5-8 week old broiler chickens, water consumption increases significantly when temperature varies from 21ºC to 32 ºC, going from 345–470 L/1,000 birds/day to 550–770 L/1,000 birds/day.[1] When air temperature exceeds 30 ºC, it was demonstrated that water consumption can increase by 50% above normal rates.[1]

ALONG THE SAME LINES, WATER INTAKE WILL BE AT ITS HIGHEST DURING THE SUMMER SEASON WHEN HOT WEATHER IS PREVALENT.[1]

The ratio of water to feed in the summer months is higher when compared to winter, fall and spring seasons due to birds drinking more water to cool down their body temperature. Research conducted by the Research Unit Manager for the University of Arkansas' *Avian Advice* newsletter, Tom Table, has also indicated that the peak demand for water is in the morning.

Another study on the effect of relative humidity (RH) at moderate ambient temperature on broilers demonstrated that weight gain and food intake, which is correlated directly to water intake, was at its highest at a 60–65% RH for temperatures ranging between 28ºC and 30ºC for 4 to 8 week old broilers.[2]

Feed and water consumption are closely related. It has been observed in many studies that when there is an increase or a decrease in feed or water consumption, the same increase or decrease will be noticed in the other. Another factor to take into consideration is diet composition. One study demonstrated that birds fed a higher fibre wheat middling diet had a 50% higher water intake than birds fed a corn soya diet.[3]

Water quality also has a direct impact on water intake. A foul odour or taste resulting from contamination of the water by dust, or slime produced from spilled feed or fecal matter, will discourage birds from drinking the water. Literature indicates that among livestock, poultry is the most sensitive to the taste and mineral content of the water. As well, drinking water temperature should be in the range of 10–15ºC for mature birds and 25 ºC for chicks. Water temperature over 30 ºC is more likely to reduce water consumption.[4]

To measure flock performance without using a scale, producers can monitor water consumption on a daily basis. This method has been proven by many researches to be a reliable measure of broiler performance. During its lifetime, a broiler chicken can consume up to 8.2 kg of water and 4.5 kg of feed.[4]

When monitoring water consumption, producers must read the water meter at the same time each day and write it down on the Flock-Specific Record sheet or another form. Once the data is collected, producers can compare the current flock water intake with other flock data. It is not uncommon for water consumption to go down one day and be higher the next.[5]

However, if water intakes are down two or more days in a row it could be indicative that there is a problem with the flock. Producers should closely monitor the flock for sickness and investigate the reason for the change in water intake. The barn environment and the water quality are factors that should be looked at during the investigation.

Finally, monitoring daily water intake is now a requirement for some producers under the Animal Care Program. Water meters must be present in each barn and intakes must be recorded daily when birds are stocked between 31 kg/m^2 and 38 kg/m^2. This mandatory requirement is in place to make sure that birds have sufficient water, as well as to help producers monitor the well-being of their flock. OF

1. Water Requirements for Livestock, OMAFRA, Factsheet 07-023 www.omafra.gov.on.ca/english/engineer/facts/07-023.htm (site visited: 05/01/2010)
2. Relative humidity at moderate ambient temperatures: its effect on male broiler chickens and turkeys, S.Yahav, British Poultry Science, vol 41, Issue 1 March 2000 www.informaworld.com/smpp/content~content=a713654809&db=all (site visited: 05/01/2010)
3. Factors Affecting Water Intake of Poultry www.thepoultrysite.com/articles/1217/factors-affecting-water-intake-of-poultry (site visited: 05/01/2010)
4. Water Requirements for Poultry, W. Winchell, Canada Plan Service, Sheet 5603.
5. Water intake: A good measure of Broiler Performance www.thepoultrysite.com/articles/97/water-intake-a-good-measure-of-broiler-performance (site visited: 05/01/2010)

NEWS FROM THE HILL

On December 30, 2009, the Governor General prorogued the 2nd Session of the 40th Parliament.

This means that all legislative activity, including parliamentary committees has ceased. All Bills that were before Parliament and had not received Royal Assent now cease to exist. Both the Senate and the House of Commons stand prorogued until the opening of the next session.

The 3rd session of Parliament will begin following the Winter Olympics on March 3rd with a Speech from the Throne, followed by a budget on March 4th. "Our priority in the new session of Parliament will continue to be rapid and effective implementation of Canada's Economic Action Plan to benefit communities, workers and businesses," the Prime Minister said. "At the same time, we are already looking ahead to future challenges. These include restoring a balanced budget once our economy is fully recovered and building a strong foundation for our economic future."

The extended break gave MPs and Senators a chance to hold caucus sessions to plan their strategies for the coming months. The New Democratic Party of Canada met in Wakefield, Quebec from January 18–20 while both the Liberals and the Bloc Quebecois met on January 19-20; the Liberals in Ottawa, while Bloc MPs were in Quebec City.

MINOR FEDERAL CABINET SHUFFLE

There was a minor cabinet shuffle in mid-January sparked by the announced retirement of Greg Thompson, Minister of Veteran Affairs. He will be replaced on the Veterans portfolio by Jean-Pierre Blackburn who moves over from Revenue.

Blackburn will also retain his Minister of State (Agriculture) title as well.

Most of the other major portfolios remain in the hands of Harper's veteran ministers as Agriculture, Finance and Defence all remain the same. Stockwell Day moves from International Trade to the Treasury Board and will be replaced by Peter Van Loan who was Minister for Public Safety.

2010 JOINT ANNUAL RECEPTION

Planning continues on the Joint Annual Reception, held in conjunction with the other national poultry industries. Held in Ottawa, to be as accessible to Parliamentarians as possible, the reception offers farmers, industry stakeholders and staff a chance to discuss serious industry issues and concerns in a more informal atmosphere. It can also be an opportunity to brief participants that are new to their portfolios so that future discussions can take place in an informed atmosphere. Topics usually range from the WTO and the need for ongoing support, the Agreement on Internal Trade, *Growing Forward* funding programs and the many benefits of supply management.

PROVINCIAL AGRICULTURE MINISTERS

Due to some recent changes provincially, including the recent change in the Ontario Cabinet, here is the current list of provincial agriculture ministers:

BRITISH COLUMBIA: Steve Thomson **ALBERTA:** Jack Hayden **SASKATCHEWAN:** Bob Bjornerud **MANITOBA:** Stan Struthers **ONTARIO:** Carol Mitchell **QUEBEC:** Claude Béchard **NEW BRUNSWICK:** Ronald Ouellette **NOVA SCOTIA:** John MacDonell **PRINCE EDWARD ISLAND:** George Webster **NEWFOUNDLAND & LABRADOR:** Kathy Dunderdale

POULTRY RESEARCH UPDATE

The Canadian Poultry Research Council (CPRC) was established in 2001 by the five national poultry organizations in Canada. CPRC's mandate is to create and implement programs for poultry research and development that address specific industry needs.

Thirteen research projects funded by CPRC have been completed. Outlined below is a summary of one of those research projects. Additional project summaries are available on the CPRC website (*www.cp-rc.ca*), in *Canadian Poultry Magazine* and in other editions of *The Chicken Farmer*.

UNDERSTANDING *CAMPYLOBACTER JEJUNI*

Principal investigator:
Brenda Allen, Vaccine and Infections Disease Organization, University of Saskatchewan

Start date: November 2004
Final report received: January 2009

Total project funding: $100,000 (CPRC)

Background[1]
Campylobacter jejuni (C. jejuni) is the most common cause of bacterial gastroenteritis (inflammation of the stomach and the intestines) in humans in North America. Infection with the bacterium (referred to as campylobacteriosis) can cause nausea, vomiting and/or diarrhoea. While this illness can be severely debilitating, it is fortunately rarely life-threatening. C. jejuni has a low infectious dose; only 500 organisms or less are required to cause illness.

C. jejuni is commonly found in the intestines of poultry, cattle, swine, rodents, wild birds and household pets like cats and dogs. It has also been found in untreated surface water (caused by fecal material in the environment) and manure. Humans may develop campylobacteriosis after consuming substances infected by the bacterium. Despite its prevalence, relatively little is known about the biology of C. jejuni, particularly about its ability to cause disease.

Many strains of C. jejuni are well adapted to birds, whose relatively high body temperature allows for optimal growth of the bacterium. Certain strains are particularly adept at colonizing the avian gut. Poultry harbour C. jejuni in their gut without showing signs of illness and therefore act as a natural reservoir for the bacterium.

Poultry products contaminated with C. jejuni have been implicated as a source of human infection. While the risk of human illness can be greatly reduced by proper handling and cooking of poultry products, researchers in Canada and abroad are looking for ways to reduce numbers of C. jejuni at the source to further reduce the risk of food-borne illness.

Current Research
Research interest in C. jejuni has increased in recent years as a result of the growing awareness of its importance as a pathogen, and due to the availability of new modelling systems and genetic and genomic technologies to facilitate its study. There is a growing body of work that is utilizing these new technologies to determine the genetic differences in strains of C. jejuni. The idea here is to link the presence of certain genes, classified as "virulence" genes, with a strain's ability to colonize the gut. A better understanding of why certain strains of C. jejuni colonize the gut more efficiently than others could lead to ways of controlling these virulent strains.

Dr. Brenda Allan at the Vaccine and Infectious Disease Organization (VIDO) in Saskatchewan is leading a research team that is looking at these strain differences with an eye towards the long-term goal of developing a vaccine to decrease the level of C. jejuni in poultry. A number of genes have been identified which may be linked to C. jejuni's ability to colonize the poultry gut. Dr. Allan's group looked at 49 C. jejuni samples from cattle and 50 from humans and screened them for the presence of 14 putative virulence genes. Results of this screening were compared to previous results on C. jejuni samples from poultry.

The researchers found that bovine (cow) and human isolates commonly carry virulence genes that are involved in the colonization of poultry. Animal challenge studies showed that selected bovine and human isolates were able to efficiently colonize young broiler chicks. These data suggest that bovine species may serve as an important source of C. jejuni to colonize poultry. The information contributes to the increasing knowledge base on the biology of C. jejuni, its interactions with its animal hosts, and its ability to cause disease. It is hoped that a better understanding of C. jejuni will lead to better ways to limit its impact on food safety and human illness. CF

1. Background information on C. *jejuni* was obtained from the Canadian Food Inspection Agency (www.inspection.gc.ca) and the Food Safety Network (www.foodsafetynetwork.ca).

Growing Forward funding

Farmers across the country should be aware of the federal, provincial and territorial government funding program, also known as *Growing Forward*, and how it may be able to help you.

Growing Forward includes funding for food safety, traceability and biosecurity. While its predecessor, the Agriculture Policy Framework, provided funding on a national basis, *Growing Forward* has been developed to be more regionally focused with the ability to provide funding directly to farmers.

Flexibility is a key feature of *Growing Forward* that allows provinces and territories to address local and regional priorities while contributing to national objectives. As a result, provinces and territories are able to identify, design and implement the programming they believe to be the most effective in their region.

Growing Forward is cost-shared on a 60:40 basis between the Government of Canada and the provincial and territorial governments. Governments are investing $1.3 billion over five years into *Growing Forward* programs. More information about *Growing Forward* can be found at *www.agr.ca*.

While eligible expenses can vary by province, food safety enhancements can include a second feed tank to manage medicated feed or a water treatment system; biosecurity enhancements can include an impermeable manure pad or an (improved) entrance room to assure proper biosecurity.

Each province has structured their own programming in the areas of food safety, traceability and biosecurity. Examples of programs include the following:

Alberta

> Cost-sharing of 50/50 up to a maximum of $50,000 for capital items and $25,000 for non-capital items for biosecurity-related costs.

Saskatchewan

> A program of $500,000 will be available over 4 years to support biosecurity programming.

Manitoba

> Farmers can receive up to $5,000 for biosecurity improvements at a 90/10 cost share.

Ontario

> Up to $5000 per applicant for training or the purchase of equipment for improvements to food safety or traceability.

> 75% up to $20,000 to support investment in an existing on-farm food safety program

Quebec

> Funding of $750 (70% of eligible costs) for advisory services to support the implementation of biosecurity measures at farm-level

> A cost share of 70/30 up to a maximum of $2,000 for biosecurity enhancements, including the purchase of specific material and equipment.

Nova Scotia

> Cost sharing of 75% of the costs up to $10,000 to assist in the purchase and installation of traceability infrastructure and training of staff to implement traceability systems.

> 50% of the costs for food safety improvements.

New Brunswick

> Farmers can receive up to 50% for the purchase of on-farm biosecurity-related equipment to a maximum contribution of $3,000.

For more specific details on programs in your province, visit the following websites for program details:

> **BC**: *www.gov.bc.ca/al/index.html*

> **AB**: *www.growingforward.alberta.ca/growingforward/index.html*

> **SK**: *www.agriculture.gov.sk.ca/GrowingForward*

> **MB**: *www.gov.mb.ca/agriculture/growingforward/index.html*

> **ON**: *www.omafra.gov.on.ca/english/about/growingforward/index.htm*

> **QC**: *www.mapaq.gouv.qc.ca/Fr/md/Programmes/*

> **NB**: *www.gnb.ca/0180/index-e.asp*

> **NS**: *www.gov.ns.ca/agri/growingforward/*

> **PEI**: *www.gov.pe.ca/growingforward/index.php3?number=1028463*

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