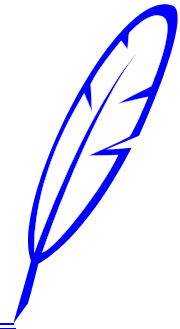


Atlantic Poultry Research Institute

**SERVING ATLANTIC CANADA'S POULTRY INDUSTRY
MEETING THE POULTRY RESEARCH NEEDS OF THE REGION**



NEWSLETTER
February 2003

CHAIRMAN'S REPORT

We at APRI wish all those in the poultry industry success in the New Year. The year 2003 has gotten off to a roaring start here. The efforts of members of APRI are once again front and center with the organization of the Atlantic Poultry Conference in Moncton this February. From early registration feedback it appears as though the 2003 version of the conference will once again be well attended. I'm sure you will find this to be a worthwhile activity. As it is a great time to renew old acquaintances and learn what is new in the areas of poultry science that interest you.

In this newsletter and in newsletters to come we will be profiling APRI employees and directors. Janice MacIsaac is our first with many more to come.

It is good to see articles from Dr. Tom Hutchison (NSDAF Veterinary Services) and Margot White (NSAC Fur Animal Research Program) in this edition of the newsletter. Collaborative efforts between APRI, NSDAF and the NSAC Fur Animal Research Program are a testament to the willingness of researchers in the region to work together towards a common goal. Suggestions for future newsletter articles are welcome.

The development of research capacity continues to occupy a substantial portion of the activity of those associated with APRI. We will continue to explore various avenues for accessing funds require to match the

government grants awarded thus far. On behalf of APRI and NSAC I would like to thank those who have expressed a willingness to invest in this effort and encourage others to take the opportunity to support the Atlantic Poultry Industry.

Dr. Derek M. Anderson

APRI Staff Profile

Janice MacIsaac

Many of you may know Janice MacIsaac, what you many not know is that she's been with APRI since the early stages. Born and raised in the Truro area, Janice started her degree at Nova Scotia Agricultural College moving to Quebec for her 3rd and 4th years to attend MacDonald College, where she completed her B.Sc (Agr.) degree in 1987. Focusing on poultry nutrition, Janice received her M.Sc degree from MacDonald College in 2000. Her strong interest in poultry nutrition has continued throughout her work at APRI and she hopes that future research will reveal alternatives to antibiotics in poultry feed. When asked about the high point in her career Janice revealed that she doesn't feel she's reached that point yet. Within the next 5 years Janice would like to see herself in a new poultry research facility at the NSAC, conducting state-of-the-art research on alternatives to antibiotics. Although her career is of great importance to her, she credits her greatest accomplishment as being the birth of her daughter. Currently, Janice resides in the Truro area with her husband Paul and daughter, Chelsea.

**“On-Site Disposal and Utilization of End-of-Cycle Laying Hens”
Research Update on the APRI/NSAC Fur Animal Research Program Project:
*Margot White, Research Associate, NSAC***

The main objectives of this project are effective on-site disposal of old (spent) hens and utilization of the resulting carcass mass for feedstuff development. The project consists of three components. 1.) On-site disposal and processing of spent hen carcass mass; 2.) Development and testing of poultry byproduct feedstuffs; and 3.) Evaluation of nutritional value of feedstuffs. The project team consists of; Dr. Kirsti Rouvinen-Watt, Project Leader and Associate Professor, at the NSAC, Dr. Bruce Rathgeber, Associate Professor, NSAC, Margot White, Fur Animal Research Associate at the NSAC and Alex Oderkirk, Monogastric Specialist, with Agra Point

All research funding for the project has now been secured and the project is underway. The funding to purchase the equipment for the on-site disposal and processing of the end-of-cycle laying hens was provided by the national and provincial Egg Marketing Boards and Mink Associations, a local NS feed supplier and a manufacturer of specialized food equipment from the USA. The funding to conduct the research on the processing of the hens and utilization by mink was provided by the NSDAF, Technology Development Program and the Atlantic provinces Adaptation Council Programs. Funds to evaluate the on-site disposal technology in Canada and the USA has been secured from NSDAF, Agri-Food Industry Development Fund and Agri-Futures, Nova Scotia's Adaptation Council. We thank all partners for their support in this research.

The project has hired a consulting agricultural engineer, Carl Esau and received quotes for the manufacture of the on-site disposal and processing equipment. The investigative travel has been arranged for early March, at which time, Carl and Margot White will travel to Regina, Saskatchewan to discuss potential design and manufacture of equipment, as well as, concerns and feed processing technology with a feed processing company, who has experience with on-site disposal and utilization of end-of-cycle laying hens. Following that, Carl and Margot will visit a potential manufacturer of the equipment in Oregon, USA and finalize design criteria.

Further to the investigative travel, the local NS feed processing company has agreed to partner with the project and has purchased a portable electric stunner that may operate in conjunction with the newly purchased macerator or as a stand alone disposal unit with a modified older model grinder. In the meantime, the company will begin to develop rendering procedures for the end-of-cycle laying hens. The collaborating processing company in this venture is SF Rendering, who is a large feed supplier for the mink industry in NS.

Margot White will be attending the Atlantic Poultry Conference, to be held in Moncton on February 13 and 14, 2003, presenting information on this project and is looking forward to discussions with the Poultry Industry.

For further information please contact Margot White at the Nova Scotia Agricultural College
Phone: (902) 893-3189, email: mwhite@nsac.ns.ca or Fax: (902) 895-6734

Research Update Dr. Fred Silversides

Agriculture and Agri-Food Canada

As if it wasn't cold enough in Nova Scotia, I went to Alberta at the end of January to help evaluate grants for the Alberta Agricultural Research Institute. It was -42 C on the day I arrived. Grant evaluation gave me an overview of the activities of Albertan animal scientists, and while I was there, I saw the research facilities at the University of Alberta. These are currently the envy of Canadian poultry researchers, and I had a chance to discuss research with Doug Korver, who was here two years ago for the Atlantic Poultry Conference. They even let me open a few chicks to measure the length of their intestines. Because I was close, I then continued on to Agassiz in British Columbia (where it was +16 C and sunny) to check on my current projects on laying hens and plan future research with Tom Scott, Agriculture and Agri-Food Canada's other poultry research scientist. Returning to a rainy weekend in Nova Scotia, I thought that this may be the East Coast of Canada, but it is certainly "central" on the weather map.

WELCOME



APRI Directors and staff would like to welcome **Mike McConkey**, research technician and **Baoyan Wang** poultry graduate student to our research team. Mike is filling in for Rena Currie for six months who is holding the position of Poultry Unit Manager while Ron Mekers is on a leave of absence. Baoyan is here from China doing a MSc in poultry science under the direction of Dr. Bruce Rathgeber. Baoyan will focus her project on the influence of toe trimming on broiler growth performance and broiler behavior.

Newcastle Disease

Dr. Thos. W.S. Hutchison

Veterinary Pathologist

NSDAF, Quality Evaluation Branch

Newcastle Disease is a viral disease of poultry and birds that has nearly world-wide distribution. It is caused by the Avian Paramyxovirus (PMV) that has many strains of viruses in its family. Clinical symptoms and mortality can vary from very mild symptoms to very severe clinical symptoms and mortality as seen in the current Newcastle Disease

outbreak in backyard and commercial poultry in California starting in September 2002.

A good vaccination program in a commercial poultry operation is great as long as proper bio-security is also maintained. The highly pathogenic or velogenic strains that are present in the commercial California flocks shows that bio-security was not well maintained.

Bio-security is essential today! Bio-security means the safety from transmissible infectious diseases, parasites and pests. Bio-security covers all of the measures that can or should be taken to prevent viruses, bacteria, fungi, pathogens, parasites, insects, rodents and wild birds from entering or surviving and infecting or endangering the well-being of **your** poultry flock.

A very comprehensive write up on Newcastle Disease has been prepared and is available at the APRI booth at the Atlantic Poultry Conference or from the APRI office at any time.



Atlantic Canadian Centre for Poultry Research Funding

Update

Dr. Bruce Rathgeber

In the spring of 2001 a formal proposal to fund replacement of the poultry research facilities at the Nova Scotia Agricultural College (NSAC) was submitted to the Canada Foundation For Innovation (CFI). After months of deliberation CFI decided that the Atlantic Canadian Centre for Poultry Research (ACCPR) met their criteria for increasing the innovative capacity of Canadian Educational Institutions to carry out world-class research and technology development. In January, 2002 CFI announced conditional approval of \$2.1 million towards the construction of new infrastructure for poultry related research at the NSAC. The conditions attached were that the remaining funds needed to be secured within six months.

As a major benefactor of the proposed facilities renewal the Atlantic Poultry Research Institute (APRI) collaborated with members of NSAC to devise a plan for securing the remaining dollars. Over the course of the next few months members of the APRI board of directors and representatives from NSAC presented industry groups and provincial governments with information to encourage investment in this much needed infrastructure for the Atlantic Region.

From the start Canadian Poultry, Farm Focus and Quebec Farmer's Advocate have covered the progress of funding effort for the ACCPR. Each have donated advertising space in their publications and this has proved to be an invaluable means of communication to participants in the poultry industry. Initially there was substantial response to this plea for funding from the Government of Nova Scotia and the Provincial and National Egg Producer Boards. Additionally, alumni of the Nova Scotia Agricultural College (Dr. Harold Chute & Dr. Errol Hancock) contributed substantial funds. Unfortunately, the six month time period expired without securing the necessary dollars. CFI agreed to extend the period for acquisition of matching funds for six additional months as it appeared that substantial progress had been made. Since that time there have been a considerable number of individuals and organizations come forward to support this effort. Supporters include individual poultry producers from New Brunswick and Nova Scotia in both the chicken

and egg industries. Additionally, the Atlantic Hatchery Federation, ACA Co-op, Merial Canada Inc. and Tartan Advanced Poultry Management Systems have made financial commitments.

Equipment manufacturers and suppliers have indicated their intent to provide a reduction in the cost of equipment or outright donation. With all this activity once more we could justify to CFI for an additional extension of the award. We now have until June 30, 2003 to come up with the remaining dollars. At this time the remaining funds to be secured amount to \$1.6 million.

To learn more about this project and to view the proposed facilities please visit www.nsac.ns.ca/apri/accpr.htm

Research Update

Dr. Bruce Rathgeber, NSAC/APRI

As part of the poultry microbiology module this summer three grad students, Janet Rafuse, Margaret Mackenzie and Krista Sharples, traveled to Manhattan Kansas for a one week workshop in Rapid Methods and Automation in Microbiology at Kansas State University. It was a great experience for these three. In the fall Avian Biology was offered once again with a substantially larger enrollment than the previous year. Production Modules offered this year include Poultry Diseases (offered in fall), Broiler Production (January) and Laying Hen Production (February - March).

Margaret Mackenzie (graduate student) has complete one growth trial and is preparing to conduct another one at the end of January. She is investigating the relationship between stress and meat quality in broiler chickens. Another graduate student started this January. Baoyan Wang received her degree in Veterinary Medicine from the Northeastern Agricultural University in Harbin China. She will be investigating management practices that influence broiler carcass quality.

I traveled to Atlanta Georgia once again to the annual trade show. This was a great opportunity to meet with industry representatives and draw attention to our project, the Atlantic Canadian Centre for Poultry Research. The trade show is an exhibition of the latest equipment and technology applicable to all segments of the poultry industry. During my visit to the Georgia I spent some time at the University of Georgia in Athens to view recent construction there. Seeing this improvements first-hand provided valuable insight regarding what to do and what not to do when building new poultry research facilities.

This newsletter is a publication of the Atlantic Poultry Research Institute (APRI). Its role is to keep those interested in poultry research activities in Atlantic Canada informed on the Institutes's plans, activities and achievements.

The purpose of the Atlantic Poultry Research Institute is to further the interests of the regional poultry industry through research. It will endeavor to do this through the following objectives: 1. To serve as a vehicle for consultation amongst all stake-holders in the Atlantic poultry industry regarding research and development needs; 2. To encourage joint participation by industry and research institutions in setting research priorities; 3. To integrate the poultry research and development activities of the Nova Scotia Agricultural College and the Atlantic Veterinary College into one strong regional program; 4. To solicit funds for poultry research development.

To be added to our Newsletter list or for comments & or suggestions please contact Natalie Cole, PO Box 550, 58 River Road, Haley Institute, Room 213, Truro, NS B2N 5E3 Phone: (902) 893-6657 Fax: (902) 895-6734 or apri@nsac.ns.ca