



POULTRY RESEARCH COUNCIL

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Dear Egg Industry People,

I am writing to you on behalf of the Poultry Research Council which has asked me to produce a regular series of letters about the way in which it spends your levy funds and those of taxpayers for the benefit of the Egg Industry and Egg Consumers.

The enclosed brochure outlines the five year programme of the Council, its general research philosophy and how its funds have been allocated for this financial year.

As you know the system of collecting the egg research levy from you and other producers changed on the 1st of July. The levy is now 3.25 cents a hen quota on 11 million quotas and it's deducted each month from your payments by the State Egg Corporations and Boards.

Those farmers who sell direct to retailers or consumers pay their levy to the State Marketing Authorities by cheque each quarter. The Federal Government matches the total industry collections on a dollar for dollar basis and the whole fund is managed by the Federal Department of Primary Industry.

The Council calls for applications for research project funding in August each year. Applications which close in December are considered by the Council the following April and money is distributed for approved projects in July. Some programmes are funded jointly by the Poultry Research Council and the Chicken Meat Research Council.

In each of these newsletters I plan to outline some of the major research programmes, discuss results to date and plans for further research in particular spheres.

Eggs, Cholesterol and Heart Disease

There is a lot of concern amongst consumers, and confusion within the scientific community, about the real relationship between eggs, cholesterol and heart disease. And so the Poultry Research Council is funding research into various aspects of this whole question.

The work is being undertaken by Dr. Paul Nestel, Chief of the C.S.I.R.O.'s Division of Human Nutrition and Professor Simons at St. Vincents Hospital in Sydney.

Professor Simons' work is designed to determine which members of the community need to limit their egg intake and under what circumstances. Subtle changes to the blood of different groups of people is measured after they eat meals rich in cholesterol derived from egg yolk.

The C.S.I.R.O.'s work is aimed at more precisely defining those people who are "high responders" to dietary cholesterol. Earlier C.S.I.R.O. work had shown that only about 1 adult in 4 responds to an extent which may justify substantial reduction in cholesterol intake.

The aim is to establish a simple criterion which can be readily applied without specialised nutritional or scientific knowledge to define "high responders".

Fly Control on Poultry Farms

Although flies don't cost egg producers a lot of money, farmers are clearly concerned about flies on their farms. In the language of our kids flies are yuk! Or in more official language flies, for environmental and aesthetic reasons, are very objectionable.

With the aid of Research Council funds, Dr. Paul Hughes of the N.S.W. Department of Agriculture has spent several years studying the build-up and the decline of fly populations on egg farms in the Sydney area. He has identified the main species of flies and other insects which act as parasites on flies during their breeding season.

Paul Hughes has also assessed the usefulness of various sprays and baits for controlling flies without killing the useful parasites. He is now checking to see if any of the flies have developed resistance to insecticides.

The overall aim is to arrive at a series of recommendations on the strategic use of sprays and baits, as well as management procedures which could greatly lower the number of flies on farms.

The thrust of Paul's work is not unlike that in the cotton and apple industries, where programmes that the scientists have called "integrated pest management programmes" have been developed. These make use of natural enemies of particular pests and chemicals when they are warranted. The overall result is that the existing chemicals are effective for much longer; they are used less frequently and control costs are much lower.

Let's hope we can achieve similar results with flies on poultry farms.

Reducing Feed Costs

The cheapest diet as you know is seldom the best for humans or poultry. It follows that the best diet is seldom cheap for either species -- just ask the people who are frequent shoppers at the health food shops!

However feed costs are the major cost of started pullet and egg production and any savings in feed costs or reduction in feed wastage is money in the farmer's pocket.

There are cost savings in making sure that hens don't eat nutrients they don't need. That means we require an exact knowledge of the needs of each hen or flock, under a wide variety of conditions (like temperature, age, rate of lay etc.) and the ability to formulate and present diets to meet

those specific needs. Or we can leave it to the hens to adjust their own diets by refining and applying "choice-feeding" methods.

Whatever method producers choose to apply, there are problems and opportunities to be researched -- the objective is not necessarily to produce more eggs, but to cut the cost of each dozen eggs produced. Certainly farmers will know the difference.

Dr. David Farrell and his colleagues at the University of New England are developing a programme of applied research and demonstration projects with this objective in mind.

The Poultry Research Council, while recognising the importance of this programme, is limiting its support until the specific research projects have been more clearly defined.

A Vaccine for Chronic Respiratory Disease (CRD)

Most layer flocks in Australia are known to be infected with MG... a primitive bacterium called Mycoplasma gallisepticum. It is the cause of CRD which depresses egg production and lowers the resistance of birds to other diseases.

It's possible, but not easy, to eradicate CRD and to maintain MG-free flocks. If we had a cheap effective vaccine as a back-up, eradication would be a lot easier.

Dr. Kevin Whitear, with the support of the Poultry Research Council, is well on the way to developing such a vaccine. It is based on a mutant or freak strain of MG which can't survive in temperatures above 40 degrees centigrade. The theory is that this will prevent it passing through the egg to the chicken.

Large scale field trials are under way using a "killed" vaccine which is safe to use under these conditions. Although there have been a few problems in evaluating the vaccine in the field, the results to date are encouraging. Farmers who can eradicate MG should probably do so. The adoption of single age flocks and all-in, all-out replacement programmes will help to make this possible. Others might have to await the development of a commercial MG vaccine, like the one Kevin Whitear is working on, to help eradicate, or live with, chronic respiratory disease.

New Egg Products

So far, the egg product development programme funded by the Poultry Research Council has been of a preliminary nature. It's really been designed to explore some of the possibilities. To date most of the work has been conducted by Mrs. Catherine Pratley and her students at the Royal Melbourne Institute of Technology.

The projects undertaken in recent years include the development of a smoked egg; a puffed egg food snack; a fermented milk-egg cheese; an egg-burger pattie; frozen french toast; a puffed egg breakfast food; and a

pre-cooked and packaged egg for quick poaching in boiling water or microwave.

Some preliminary market research has been conducted to identify products containing eggs which have potential in the diet/health food market and products for use by institutions such as hospitals, military establishments, prisons and homes for the elderly.

The commercial development and marketing of these products will probably require a co-operative approach between State Egg Marketing Authorities because of the high cost of manufacturing and the relatively small size of the Australian market.

Study & Travel Awards 1987 - 88

The Council is offering a range of study and training awards - some of them for research fellows, others for "ordinary" people like you and me. The "Industry Personnel Development Award", for example, will provide funds for an overseas study tour of 1 to 3 months duration. Details of this and other awards are available from the PRC Secretary. Applications close on 30th September, 1987.

Research Project Applications

The Council is calling for project applications. Applications will close in December. Any organisation, group or individual can apply for funds to undertake research, development or technology transfer projects that will benefit the industry. The Five Year Plan gives a good idea of the Councils priorities. Copies of the 5 Year Plan, application forms and guidelines for applicants are available from the PRC Secretary.

Conclusion

The essence of letter writing is to get a response. So I'd be really pleased to hear from you about this letter ... what you like and don't like about it; your reaction to the projects being undertaken on your behalf by the Poultry Research Council and ideas for further research in the future.

There will be another newsletter in three months.

With best wishes,



NEIL J. INALL

August, 1987