



# POULTRY NEWSLETTER

No. 24

September 1982

## BROILER GROWING FEES - JULY 1, 1982

For the first time since the introduction of arbitrated broiler growing fees, there is no increase. The guidelines laid down in the arbitration decision of Dr. J. Isaacs calls for adjustments in the cash costs of fuel, electricity, litter and wages on a six-monthly basis. The abolition of hearings for a national wage case by the Arbitration Commission, and government restraint on fuel and electricity prices has resulted in no increases in cash costs.

Anne McDonald.

## BE PREPARED TO BEAT THE HEAT

A seminar on "Hot Weather Management of Poultry" for broiler growers and egg producers will be conducted on Thursday, September 30, 1982.

The seminar will be held at the Victorian Egg Marketing Board Auditorium in Keysborough from 10 a.m. until 3.30 p.m.

Speakers will discuss why effective heat control is necessary, what equipment is available and how it should be used. Also, a range of equipment including fans, nipples and sprays will be on display during an extended lunch hour.

During the afternoon, feeding and management programs for very hot days will be outlined.

Too often hot weather causes extreme distress to the bird and severe egg loss to the producer. These aspects are important because they adversely affect bird welfare and the profitability of the farm. Producers must accept their welfare responsibilities.

## PROGRAM

10.00 a.m.

Morning Tea and Registration.

10.20 - 12.45

. How Heat Affects the Bird.

- L. Miller, Poultry Officer.

. Alternative Methods of Cooling.

- M. Foster, Agricultural Engineer.

. Designing a Practical Cooling System.

- M. Larkin, Agricultural Engineer.

12.45 - 1.15

Lunch

1.15 - 2.30

Inspection of Equipment Display. An excellent opportunity to examine the wide range of cooling equipment and discuss your needs with the company representatives. This will be of particular interest to producers.

2.30 - 3.30

- . Feeding Strategies in Hot Weather.  
- Hector Karunajeewa and Bruce Bartlett,  
Poultry Nutritionists.
- . Hot Day Management for Broilers.  
- Anne McDonald, Broiler Officer.
- . Hot Day Management of Layers.  
- John Dark, Poultry Officer.

3.30

Afternoon Tea.

VENUE:

Victorian Egg Board Auditorium,  
Cnr. Chandler and Kirkham Roads,  
Keysborough.

COST:

Lunch will be provided at the Egg Board Canteen at  
approximately \$4.00 per person (depending on what you eat).

POTENTIAL EXHIBITORS:

There is still space available to display your Hot  
Weather Control Equipment.

ENQUIRIES:

Lawrie Miller (03) 651-7178, Melbourne,  
Ray Evans (054) 484-505, Bendigo.

COMING W.P.S.A. MEETINGS

THURSDAY, OCTOBER 7 - ECONOMIC DISEASE PROBLEMS

TIME:

4.30 p.m. - 6.30 p.m.

PROGRAM:

- . Recent Progress in Disease Research Projects at  
C.S.I.R.O.
  - Dr. T. Bagust, Principal Research Scientist  
Poultry Diseases. Dr. Bagust is involved with the  
development of tests to detect leucosis in breeder  
stock which hopefully will lead to the effective  
eradication of the disease.
- . The Runting Syndrome - Australia Wide and Overseas  
advances.
  - Dr. J. Gould, Poultry Diseases Specialist.  
Dr. Gould has recently attended an Australian  
Veterinary Conference where Runting was a major topic  
of discussion.
- . CRD Control for the 80's.
  - Dr. N. Laing, International Research Veterinarian.  
Dr. Laing is a world authority on CRD and is  
currently visiting Australia from the U.S.A.,  
courtesy of E.R. Squibb and Sons.

VENUE:

Victorian Egg Marketing Board Auditorium,  
Cnr. of Kirkham and Chandler Roads,  
Keysborough.

MONDAY, OCTOBER 25 - FANCY BREEDER LECTURE NIGHT

Speakers with a wealth of practical experience will provide smaller breeders and poultry keepers with the opportunity to seek answers to problems which often cause concern.

Equipment and other products to aid the breeder will be on display.

- TIME: 8.00 p.m. - 10.00 p.m.
- PROGRAM:
- . Infertility in Breeding Stock - Causes and Solutions.  
- Mr. W. Stanhope.
  - . Artificial Incubation - Correct Technique and Trouble Shooting Poor Hatchability.  
- Mr. R. Halligan.
  - . Feeding for Breeding and Showing.  
- Mr. B. Bartlett.
  - . Blood Testing Provides Protection for Valuable Stock.  
- Dr. J. Gould.
- VENUE: Victorian Egg Marketing Board Auditorium,  
Cnr. of Kirkham and Chandler Roads,  
Keysborough.

HAVE YOUR SAY!

Earlier this year the Poultry Advisory Committee established a Working Party to review the present Extension, Veterinary, Research and other relevant services e.g. State Laboratories, provided by the Department of Agriculture, and to make recommendations on the future needs of the Poultry Industry in Victoria.

The Working Party has canvassed views from a broad cross-section of the industry and would welcome further comment from any interested persons.

If you wish to contribute please contact the Secretary, Mr. Greg Mithen on (03) 651-7176 or write to him C/- Department of Agriculture, Box 4041, G.P.O. Melbourne, Vic. 3001. Suggestions should reach Mr. Mithen by Friday, October 15, 1982.

Michael Moore.

PRACTICAL RESEARCH PROJECTS AT WERRIBEE

These are:

1. Studies on the nutritive value of narrow-leafed lupins, white lupins, field peas and chick peas for growing and laying birds.
2. Evaluation of sources of linoleic acid (e.g. hulled oats, sunflower etc.) for laying hens.
3. Studies on the dietary balance of electrolytes (sodium, potassium and chlorine), phosphorus levels and anti coccidial drugs on the productivity of broilers.
4. Evaluation of a by-product of starch manufacture as a source of protein for chickens.

This financial year (1982/83), the above poultry research projects are supported by funds from the Poultry Research Advisory Committee, Australian Chicken Meat Research Committee and Commercial Sources.

From time to time progress reports on the above projects are written up for presentation to the funding bodies. Results of these studies are also presented at seminars held at various district centres.

Further information on these projects can be obtained by contacting the poultry research officers at Werribee on 741-1300.

H. Karunajeewa.

#### REHABILITATION OF AGING HENS

An experiment carried out at A.R.I. in 1981 indicated that the productive life of laying hens can be prolonged by inducing a pause in egg production after the completion of the first 9 to 10 months of lay. This pause in production enables the hen to regenerate her reproductive capacity before production resumes again for another cycle of about 10 months. In the second laying cycle, laying performances and egg quality are better than when hens were allowed to lay continuously for 15 months, as is the current practice. Feeding diets with very low level of calcium or with excessively high levels of either zinc or iodine were successful in inducing a pause and in improving subsequent laying performances. The most promising results in this study however were obtained when 73 week old hens were given whole barley for one week followed by a normal laying diet for six months. The ease and practicability of the latter method has attracted the attention of many egg producers who attended seminars on this subject at Bendigo and Ballarat in July and November 1981.

S.A. Serewa, Animal Research Institute, Werribee.

#### NUTRITIONAL VALUE OF HAMBURG LUPINS FOR LAYING HENS

In Victorian about 25,000 ha of lupins were cultivated in 1981-82 and the area sown to lupins is steadily increasing. Lupin is a legume which fixes nitrogen in the soil and hence improves the yield of wheat when they are grown in rotation. The narrow leafed lupin (Lupinus angustifolius) is currently the most popular type. However White Lupins (Lupinus albus) particularly the cultivar Hamburg, have the advantage of a higher protein content (37% vs. 28%) than the narrow leafed varieties and are perhaps more suitable and economical for use in rations for laying hens.

In experiments carried out at the Animal Research Institute, Werribee, it was found that the nutritive value of Hamburg lupins, when properly supplemented is equal to or even superior to that of other commonly used protein supplements such as meat and bone meal. Laying hens given diets based on Hamburg lupins laid larger eggs which is an indication of the high quality of the protein in Hamburg lupins.

Hamburg lupins contain high levels of manganese and it has been suggested that this may be harmful to some species of livestock. The results of experiments with layers at this Institute, however, show that the high level of manganese has no adverse effects on egg production. It is concluded that Hamburg lupins are a suitable alternative source of protein for laying hens.

B.E. Bartlett, Animal Research Institute, Werribee.

#### CALCIUM LEVEL IN MEAT MEAL

Analyses of recent batches of meat meal have shown that their calcium content is between 8.0 and 8.5 per cent. This is lower than the average value of 10 per cent calcium found in meat meals manufactured in the past. It is apparent that less bone relative to soft offal is being used in meat meals manufactured at the present time.

Egg producers who use meat meal as the main source of protein in laying rations may have to adjust the level of ground limestone and/or shell grit to ensure an adequate level of calcium in the ration.

It is absolutely essential that a hen should consume between 3.5 to 3.75 g of calcium per day for maintenance of optimum egg shell quality.

H. Karunajeewa, Animal Research Institute, Werribee.

#### NEW JOB FOR BENDIGO ADVISER

Mr. Ray Evans - Bendigo District Office has recently been appointed to the position of Assistant Principal Officer, Poultry Industry Services. The position is one of several Assistant Principal Officer positions created by the Department. Mr. Evans will remain in Bendigo for the present but may eventually need to move to Melbourne. We congratulate Ray on his promotion and wish him every success in his new position.

Poultry Branch.

#### NEW SEROLOGICAL TEST FOR INFECTIOUS BRONCHITIS

The V.R.I. is now able to test blood (sera) for antibodies to infectious Bronchitis virus using a haemagglutination inhibition (HI) test. I.B. virus does not haemagglutinate (HA) red blood cells without treatment by a particular enzyme. Then it can be used in HA and HI tests. The original work was done in England and this test has been used there to monitor flocks during recent years. Recently Dr. T. Faragher of N.B.S.L. identified local strains of I.B. virus which are sensitive to enzyme treatment. This means that the test can now be done locally.

Established serological tests for I.B. virus are either less sensitive, less reproducible, take longer to perform and are thus more expensive than the HI test.

Results overseas have shown that the correlation between HI and serum neutralization titres is good. The test indicates a serological reaction to I.B. virus which may be of field or vaccinal origin and has this advantage that it is quick, simple and relatively cheap to perform. It must, however, be stressed that it is not possible to relate a particular H.I. titre with protection for I.B. infection.

D.A. Barr.

#### NORMAL MORTALITY

In normal circumstances 3 to 5% of broiler chickens placed in a shed at day-old die or are culled before the flock is picked-up for processing at 7 to 8 weeks-of-age. What causes this?

During 1979 the Avian Disease Section of the Veterinary Research Institute, Parkville of the Department of Agriculture carried out post-mortem examinations on many chickens from a farm where Inclusion Body Hepatitis (IBH) had previously occurred. The plan was to determine the cause of death or reason for culling of each bird but unfortunately many of the dead birds were too decomposed for examination. Others were not delivered to the laboratory because of prolonged rail strikes, week-ends etc. The accompanying Table shows the conditions found. A total of 61,400 chicks were placed at day-old in three sheds (about 20,000 per shed). During rearing 2,883 died or were culled (4.7% average; 4.0% to 5.6% per shed).

These findings show that even in a apparently healthy flock many diseases develop. Results of post-mortem findings, where performed on the farm or in a laboratory must be interpreted on flock basis. This applies not only to broiler producers but to all commercial poultry (egg layers, breeders, quail, turkeys, squab pigeons, ducks etc.). It is essential that specimens to be examined are representative of the flock problem. Selection of irrelevant specimens or with-holding of information on the nature of the flock problem will cause delays in diagnosis and may lead to inappropriate advice. In addition, the financial losses are therefore increased.

If you are submitting specimens to the Veterinary Research Institute please supply your name, address and telephone number and indicate the nature of the flock problem (symptoms, infection rate) and current production parameters (growth rate, mortality, egg production etc.). Please send relevant specimens. For example, if there is a drop in egg production dead birds may be of little value - identify some birds or a pen of birds where you know the production has dropped. If there is mortality in large well grown cockerel broilers under-size birds with slipped tendons are of no use. Some apparently healthy birds are also useful as a comparison.

T A B L E

CAUSES OF DEATH AND REASONS FOR CULLING IN 61,400 VICTORIAN BROILER CHICKENS (1979)

CONDITIONS FOUND	AGE OF CHICKENS (DAYS)		
	0-10	11-21	21-56
Non-specific deaths	18	121	261
Inclusion Body Hepatitis	-	-	195
Colibacillosis	17	7	47
Runting with no obvious cause	-	11	58
Starve-out/non-starters	57	-	-
Yolk sac/navel infections	56	-	-
Slipped tendons/perosis	-	13	41
Chilling	49	-	-
Heart defects	-	2	33
Infectious bronchitis-nephritis	1	1	4
Flippers (Acute death syndrome)	-	-	6
Fatty liver and kidney syndrome	-	2	3
Visceral gout	4	-	-
Haemorrhagic coccidiosis	-	-	5
Marek's disease	-	-	2
Miscellaneous accidents	3	7	3
Not examined	479	295	1081
<b>TOTAL</b>	<b>684</b>	<b>459</b>	<b>1740</b>

R.L. Reece, Avian Pathologist (ph: 03 3472322).

A POTENTIALLY VIABLE INDUSTRY!

One has heard for 10 years that quail and squab pigeons are prolific breeders and that these industries have great potential.

Quail can return up to 38¢ net per bird and give a return to capital of up to 90 percent. Squabs can return up to \$2 per squab after feed costs.

Demand is currently greater than supply. Why are there not more breeders? Why is production below demand? Is production per year inadequate on account of inferior breeding stock? Would overseas stock be better?

RANDOM SAMPLE LAYING TEST NEWS - I.F. SMITH

The Annual Field Day for the 24th R.S.L.T. was held at Burnley Gardens on July 13. The Minister of Agriculture, Mr. Eric Kent presented the Victorian Hatcherymen's Society trophy to the leading entry in the Commercial Section - Musgrove No. 2 White Leghorn X Australorp, with a hen day production of 279 eggs. Average egg production was 255 eggs, with most entries performing very well.

A copy of the Final Report of the 24th R.S.L.T. has been included with this newsletter for all those associated with the egg industry. If you did not receive a copy and would like one please contact us on (03) 651-7178.

EXCELLENT EGG EFFORT

Pullets in the new 25th Random Sample Laying Test have commenced laying, and production in the Commercial Section had reached 90 per cent at 28 weeks of age. This average was taken from all entries in the Commercial Section.

The birds genetic potential is improving all the time. The environment that birds are kept under in the field should be such to minimize stress (from heat, chills, disease etc.) if you wish to capitalise on the breeders' efforts. Many breeders provide detailed management guides designed to suit their particular bird and to maximize performance.

PROGRAMME FOR THE NEXT (26TH) R.S.L.T.

Breeders are reminded that flocks should be mated up early January. The proposed programme is as follows:

February 23 to 28, 1983	-	Egg Collection
March 1, 1983	-	Eggs Set
March 23, 1983	-	Hatching Day
March 24, 1983	-	Transfer to Brooder
May 11, 1983	-	Shift to Rearing Pens
August 3, 1983	-	Caging Up

Present entrants will receive application forms in the next few weeks. Others interested in entering may contact me on 810-1736 for application forms.

USE RESULTS FROM COMMERCIAL SECTION WHEN CHOOSING STOCK

Poultry farmers should take note. We have heard some chick salesmen are using results published in the Development Section of the R.S.L.T. to promote their product.

There are a number of important differences between the commercial and the development entries that don't allow them to be compared directly.

The Development birds are kept in a different environment i.e. in small 20 bird pens on deep litter and not in cages. Average production in such pens tends to be appreciably higher.

The fertile eggs from development entrants are supplied by the entrants themselves and not collected randomly by an officer from the Department directly from the entrant's breeding pens.

Testing in the Development Section is conducted for the breeders information only enabling him to test the birds that he submits in an independant environment. This is the reason we do not publish the names of entrants in the Development Section.

I.F. Smith

It is folly to advertise and promote these industries until a regular supply of the product is available. Ill-timed publicity in the past caused a rush of orders which could not be met. This created long lasting ill-will in the market place.

Recently completed pigeon research at the A.R.I., Werribee has shown that pigeons produce well, on low protein diets (11% C.P.) and on low lysine levels (0.5%). Work at Longerenong College has shown that grain fed pigeons gave higher returns than pellet fed pigeons. Another College project showed that quail fertility is best on a 1 to 1 or a 1 to 2 mating ratio as compared with 1 to 3, 1 to 4 or 1 to 5. Most squab producers are now feeding grain which are cheaper than pelleted diets.

J. Dark.

YOU MAY NOT BE THE ONLY ONE GETTING A HEADACHE FROM BROILER GROWING - "POULTRY WORLD"

Every broiler producer will admit there are many stresses involved in intensive livestock production, and it is possible that some of these stresses are being passed on to the birds. In fact, modern management may be giving them a "headache".

A British broiler producer believes that a migraine (or stress) syndrome is responsible for many of the problems currently affecting the industry, such as leg weakness, excessive fat deposition, runting syndrome, and general poor performance. Mr. Metford Jaenes O.B.E., Chairman of Quantock Poultry Packers, believes the responsible factors are the unknown effects of the mixtures of ingredients used in modern broiler rations. His hypothesis is based on his own experience of migraines which were traced to common foods in his diet.

While we formulate rations by computer these days, there is little known about how the ingredients will react in the bird. Pushing birds for performance will compound the ration - induced stress.

Quantock farms have reversed the trend by feeding a lower density starter ration. This has proved quite important in not only lowering costs, but also producing healthier birds with improved grading results and less carcass fat.

Anne McDonald.

TWO HOURS OF LIGHT EACH DAY?

Intermittent lighting appears to be possible even in open sided laying houses. This idea may allow egg producers who combine artificial lighting with natural daylight to reduce the amount of artificial lighting used and thus reduce costs.

Two research workers at the University of Florida, U.S.A., F.B. Mather and H.R. Wilson have used a program which uses two hours of artificial lighting.

The lighting program started with one hour of artificial lighting from 3.30 to 4.30 a.m. and then used natural daylight until 7.30 p.m. when the second hour of artificial light was used.

Two experiments have been conducted and hens exposed to the program performed well.

We have sent for more details and will assess the possible application to Victorian conditions. If it works, electricity costs on egg farms could be reduced quite considerably.

Ray Evans.