

## Welcome

Welcome to the Spring edition of the Drumstick newsletter. In late July of this year I commenced duties as the new Poultry Livestock Officer for the NSW Department of Primary Industries, replacing Joanna Blunden who has moved across to supporting the beef cattle industry. Joanna provided tremendous support to the poultry industry and I wish her the very best in her new position. In addition to my many other roles I am delighted to continue the great tradition of publishing the Drumstick newsletter, a publication which dates back to April 1983. Filling Joanna's shoes is no doubt going to be a daunting challenge as I hope to continue to provide the poultry industry with newsworthy and interesting articles on industry developments and issues ranging from productivity, welfare, environmental performance, housing, legislation and policy and much more.

I am also pleased to announce that the Drumstick will now be available on the internet. In addition to sending readers a copy in the mail, the Drumstick will now also be available on the NSW Department of Primary Industries website at: [www.dpi.nsw.gov.au/agriculture/livestock/poultry](http://www.dpi.nsw.gov.au/agriculture/livestock/poultry)

In my view the measure of success of any publication is its ability to provide new and interesting information, to provide readers with useful references and to provide material which leads to positive outcomes for individuals, organisations and others. In order to achieve this I would welcome your feedback, suggestions, contributions or constructive criticisms to provide a professional, newsworthy and relevant publication for the poultry industry and its many stakeholders.

### What's new?

In this and future editions I will be including a 'Red Flag' section in the Drumstick. The intent of this section is to highlight issues coming your way which may impact on how you do business, issues impacting on industry and changes to legislation and policy.

I look forward to hearing from you and hope you find something here that makes a positive difference to your enterprise.

*Byron Stein*  
Editor



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# Training and education grants available

## THE DRUMSTICK

The Drumstick is a free quarterly newsletter produced by NSW Department of Primary Industries, providing information and updates for the poultry industry.

## CONTRIBUTIONS

Letters and stories from growers and industry personnel are always welcome.

## ADVERTISING

1800 copies of The Drumstick are distributed each edition. We welcome advertisements and offer very competitive rates. Contact Jo Ottaway for more information.

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The information contained in this publication is based on knowledge and understanding at the time of writing. However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check the currency of the information with appropriate advisers.

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FarmReady reimbursement grants assist primary producers and indigenous land managers to attend approved training courses. Approved courses aim to improve the capacity of primary producers to adapt to climate change and increase their self-reliance and preparedness.

Eligible participants can receive up to \$1500 (per person) each financial year to cover the cost of approved training activities. Up to \$500 is available per person to support associated expenses such as excess travel (over 150km from home), accommodation and childcare.

The following PROFarm courses have received FarmReady approval and more applications are underway:

- Animal health risk management – introduction
- Farm planning
- Farmer's guide to managing climate risk
- Farming in a changing climate
- Healthy soils, healthy landscapes
- Identification and management of native grass pastures
- Introduction to environmental management systems
- Introduction to organic farming
- LANDSCAN
- Organisational governance and stewardship
- Paddock Plants
- Prograze

- Prograze Abridged
- Prograze Plus
- Property management planning for natural resource management
- WaterWise on the farm

## How to access the grants:

1. Choose a course that you would like to do.
2. Register for the course and pay the course fee.
3. Lodge a FarmReady funding approval application form at least 5 days before the course starts.
4. Attend the course, keeping all receipts.
5. Receive a course completion certificate from the person running the course.
6. Submit a claim for reimbursement to FarmReady to within 30 days of course completion.

All forms are available on the FarmReady website ([www.farmready.gov.au](http://www.farmready.gov.au)) or more information on PROfarm courses approved under the FarmReady reimbursement grant contact:

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# Reducing ammonia levels using alum

## *Using alum to reduce ammonia and improve bird performance – a cautionary note*

Poultry producers in the USA have been using aluminium sulphate, commonly referred to as alum, to improve poultry production and reduce negative effects of litter on the environment. Research has shown that alum applications to poultry litter control the release of ammonia gases and reduce phosphorus runoff from land fertilized with litter.

The breakdown of uric acid in poultry manure produces ammonia gas. This gaseous emission can be inhibited if converted to ammonium. This can be accomplished by lowering litter pH. Alum is an acid that causes ammonia gas to form ammonium and ammonium sulphate. Ammonium sulphate is a water-soluble fertilizer. As a result of these reactions, the amount of ammonia gas emitted from the litter will be reduced, increasing the nitrogen (N) content of the litter. Alum addition to the litter will also result in the precipitation of soluble phosphorus and thus reduce phosphorus runoff. However it should be noted that the use of alum in broiler litter management can have both positive and negative benefits, which are explained below.

Reported benefits of using alum as a litter treatment include the following:

- Decreases house ammonia levels
- Reduces energy usage
- Improves bird performance
- Precipitates soluble phosphorus
- Reduces phosphorus and heavy metal runoff
- Imposes a drying effect that reduces litter moisture

Whilst the above benefits of applying alum to poultry manure appear compelling, Australian growers should be aware of the following problems with using alum:

1. Alum ties up phosphorus in poultry manure, effectively depleting available phosphorus for soil and plant use. Poultry manure can be a highly valuable resource for low phosphorus soils. Australian soils are typically low in phosphorus and poultry manure is seen as a valuable 'organic' substitute for superphosphate and other inorganic fertilisers. By using alum, you may be effectively removing the available phosphorus for plants to use, thereby eliminating its fertility benefits. On the other hand, in situations where soils are already high in phosphorus, and the application of poultry manure may result in phosphorus runoff and contamination of waterways, alum may prove to be useful in reducing phosphorus pollution. It is always advisable to conduct a soil test before applying any form of fertiliser to your soils and pastures.

2. The application of alum to poultry manure produces ammonium sulphate, a water-soluble fertiliser. Ammonium sulphate has a soil acidifying effect and is therefore more commonly used on alkaline soils (higher pH). Australian soils however are typically acid (lower pH) and the addition of ammonium sulphate may increase soil acidity levels, potentially compromising plant and pasture growth, particularly for some acid sensitive introduced pasture species.

### **In summary:**

- Some American researchers are promoting the use of alum to reduce ammonia gas levels in poultry sheds and to reduce phosphorus pollution of waterways.
- Alum binds up phosphorus in poultry manure making it unavailable to soils and plants
- Alum in poultry manure produces ammonium sulphate which may have an acidifying effect on soils.
- Alum should only be used when the poultry manure is not intended to be used as an alternative phosphorus fertiliser and in soils which are not acidic.

Quarter page black and white, Wallaby Fabrication ad

# Negotiating a fairer deal for the NSW Poultry Industry

*The right to a “fair go” is the thing almost all Australians put at the top of their list when it comes to values, and chicken meat contract growers are no exception.*

Byron Stein

Editor, *The Drumstick* byron.stein@industry.nsw.gov.au

The negotiation of a fair deal between processors and contract growers is one of the primary concerns of the Poultry Meat Industry Committee (PMIC), an independent industry body established to facilitate fair deals between processors and chicken meat growers in NSW. The PMIC has recently made a change to the *Code of Practice for the Conduct of Negotiations between Processors and Contract Growers* to assist negotiations between processors and contract growers and to significantly reduce the costs associated with dispute negotiations, including disputes over contracts.

The key change to the Code of Practice is the option of using **‘Facilitated Negotiation’**. In the event of a

dispute, growers and processors have the option of engaging a mediator appointed by the PMIC. If mediation is unsuccessful, the next step is Facilitated Negotiation, instead of proceeding directly to arbitration, which is expensive and time consuming for all parties. The introduction of Facilitated Negotiation is designed to limit the number of disputes that proceed to arbitration, saving all parties both time and money.

The additional benefit of Facilitated Negotiation is that the independent facilitators are familiar the Poultry Industry and industry issues and are competent and able to progress dispute resolution in the interest of giving all parties a ‘fair go’. This process is also more efficient and cost effective than employing a professional negotiator who might not be familiar with the industry.

For chicken meat growers who may not be aware of the *Code of Practice for the Conduct of Negotiations between Processors and Contract Growers*, a copy can be obtained at: [www.dpi.nsw.gov.au/aboutus/about/legislation-acts/poultry-meat-industry](http://www.dpi.nsw.gov.au/aboutus/about/legislation-acts/poultry-meat-industry).



Half page black and white, R & E Sheds ad

A4 black and white, Retracom ad

# Impact of lighting programs on broiler performance

*Adapted from: Matthew Wilson and Andrew Bourne, Broiler Specialists, Cobb World Technical Support Team*

Surveys of broiler lighting programs around the world reveal a wide array of lighting regimes. To decide which broiler lighting program should be implemented, there are several critical factors a grower should consider:

- What are the specific benefits of such programs?
- Do breeds respond differently to broiler lighting programs? Should a lighting program be adjusted based on average daily gains?
- What are the animal welfare benefits of broiler lighting programs?

Lighting programs improve livability by decreasing mortality as spelled out in the following partial list of causes:

- 1. Reduction in mortality due to ascites (water-belly) and sudden death (flip overs)** – Light restriction programs for broilers have a profound effect in improving late mortality due to ascites and sudden death.
- 2. Reduction in mortality due to leg disorders such as valgus/varus, spondylolisthesis (kinky back) and rotated tibia** – Literature is well documented with evidence that lighting programs can reduce the incidence of leg disorders in broilers: Broiler companies and other researchers support the benefits of lighting programs in their prevention of leg disorders such as valgus/varus deformities (VVD). Danish researchers showed that lighting programs not only reduced leg problems but also reduced chronic fear in birds.

### 3. Reduction in spiking mortality

– Lighting programs have been shown to minimize the effects of spiking mortality syndrome. Research has demonstrated that controlled amounts of light/darkness can reduce much of the hypoglycemia, mortality and runting-stunting associated with spiking mortality syndrome of chickens.

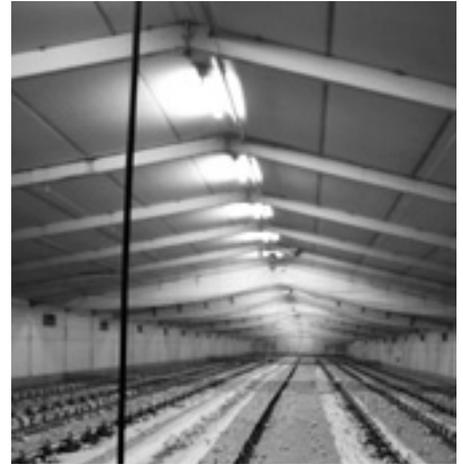
### 4. Improved immunity and disease resistance

– The light/dark period or daily rhythm of the typical broiler lighting program increases melatonin production. Melatonin influences development of the immune system and improves immune system performance.

## *Performance benefits of lighting programs*

Improvements in ADG and FCR with broiler lighting programs are well documented by research institutions and the poultry industry. Increasing livability accounts for a portion of improved FCR. Likewise, FCR and ADG can be improved by repartitioning those calories normally expended for bird activity to calories available for gain. The 'caloric sparing effect' of the resting response as influenced by a lighting program is evident from research at Oklahoma State University. Moderate bird movement or exercise is desirable for the benefit of leg strength. However, too much activity wastes calories and may result in injury or downgrades at processing. This excess of activity can be controlled through lighting.

Table 1. Illustrates the Kcal/kg/hr produced during light and dark periods at various ages. A six hour darkness period was used.



## *A word of caution*

Average Daily Gain (ADG) may be impaired by poorly managed lighting programs. Growers experiencing difficulty with achieving their target daily gains may not benefit from extended dark periods. Careful performance analysis such as weekly body weights are crucial in selecting the best lighting programs. In addition to genetics, variables such as nutrient density and management have a significant impact on the results of any lighting regime. For any given nutrient density, feed intake is a critical factor influencing ADG and FCR. While lighting programs influence feed intake, it must be noted that as lighting adjustments are made, feed availability, feed form, feeder height adjustments and feeder run times become more critical. In some parts of the world, growers practice feed restriction to improve FCR and livability with good effect. However, accidental feed restriction is more common than many growers would admit and may result in frustrating reductions in performance and skin quality upon flock settlement.

Meal feeding caused by long dark periods can increase scratching due to competition for feeder space if not managed properly. Scratches are a significant contributor to

downgrading and may increase the incidence of cellulitis in the flock. A reduction in light intensity will help to reduce the incidence of competition at the feeding system at "light-on" time. However the most common cause of scratching is aggressive feeding behavior due to extended feed outages. For this reason we recommend that feeding programs and lighting programs should never be implemented together.

Table 1.

Lighting effect on bird heat production Kcal/kg/hr (6 hour darkness program)				
Age (days)	18	28	35	45
Body Weight (g)	655	1505	2203	3112
Heat production during light hours (Kcal/kg/hr)	10.6	5.7	4.6	4.3
Heat production during dark hours (Kcal/kg/hr)	7.4	3.9	3.3	3.0
% Change	-30.2	-31.6	-28.3	-30.2

When considering lighting programs as a management tool, both the duration and intensity of the light period are factors that need to be considered. Field research indicates that a minimum light intensity of 25 lux helps to stimulate bird activity during the first 5 to 7 days. Effective stimulation of activity during these first few days of life is needed to ensure that the chicks become properly acclimated to their environment and have optimal feed consumption.

At the onset of light restriction, light intensity can be decreased to between 5 and 10 lux for the balance of the grow-out period until incorporating a light intensity increase of 10 to 20 lux just prior to processing. However, any local regulations or processor specifications pertaining to both light intensity and dark hours duration must be adhered to.

## Conclusion

Genetics, nutrient density, feed intake and management programs significantly impact results and must be considered when customizing the lighting program. The challenge is to customize broiler lighting programs using strategic weekly broiler weights to refine adjustments. Lighting programs employed around the world are not standardized and likely will never be. However, when one considers all of the variables involved in the rearing of broilers and the objectives of poultry companies, this is no surprise. Weight, feed intake and mortality data are needed to customize the lighting programs of the future. Research and the popular use of broiler lighting programs provide data and an endorsement of the derived benefits. Broiler lighting programs in concert with the proper genetics, environment, nutrition and management create the best in welfare for the animal and performance for the processor.

To access the full text of this article go to: [http://www.cobb-vantress.com/publications/documents/CobbTechFocus7\\_20100222.pdf](http://www.cobb-vantress.com/publications/documents/CobbTechFocus7_20100222.pdf)

# Humane killing of turkeys

Source: RSPCA

Turkeys often have to be euthanized on-farm due to disease or injury, and it is important to determine the most humane way in which these large birds can be killed. It is commonly accepted that cervical dislocation (breaking the animal's neck with ones hands or with an implement, such as a bovine castrator) and blunt trauma (a blow to the head) are effective ways of killing turkeys with minimal suffering.



However, the authors of this paper argue that there is currently no scientific evidence to support these claims. The researchers therefore tested the effectiveness of manual and mechanical cervical dislocation, blunt trauma, and a device known as a Zephyr (which delivers a non-penetrating captive bolt) on rendering turkeys insensitive. The Zephyr was initially developed and approved by the Ontario Ministry of Agriculture, Food and Rural Affairs for stunning rabbits in abattoirs. The researchers noted key physiological and behavioural parameters such as the time taken for the blink response and convulsions to disappear. They found that the Zephyr and blunt trauma consistently induced immediate insensibility leading to death, whereas all birds showed signs of sensibility after manual and mechanical cervical dislocation.

The Zephyr prototype, built by the University of Guelph in Canada, was developed jointly by the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) and a concerned animal welfare association.

## Using a Zephyr

Operating a Zephyr requires pulling a trigger, making it substantially easier to deploy than the physical force required for other methods.

Method: The Zephyr is powered by an air compressor. While portable, it is heavy and it is suggested that the bird be brought to the Zephyr instead. An airline

*continued page 23*

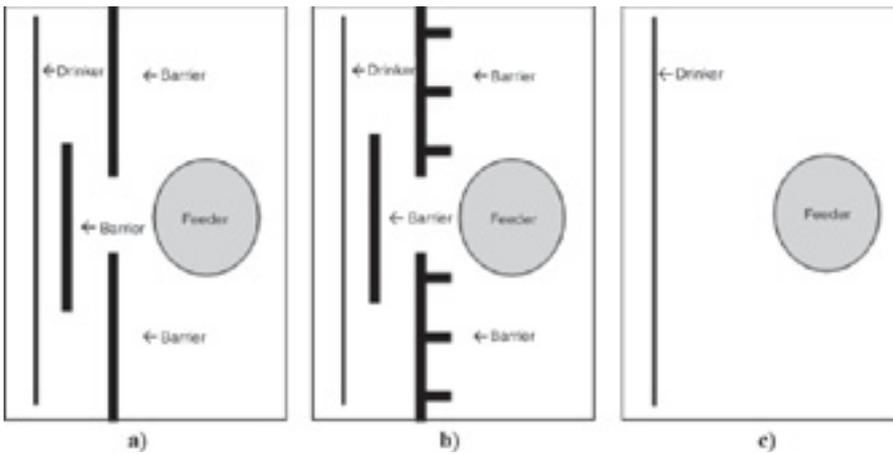
# Barrier perches and broiler leg health

Deterioration of footpad and hock condition and increased stress are important welfare concerns in high-density broiler production. It has been argued that environmental enrichment may help address these issues. A commonly observed condition is fluctuating asymmetry (FA) of the tibial bones, where the right and left

legs are of unequal length. This study investigated whether the provision of barrier perches to one-day old broiler chicks could improve leg health, especially at high stocking densities.

The researchers found that birds housed at high stocking

densities (18 birds/m<sup>2</sup>) had poorer footpad and hock lesion scores than birds reared at lower densities (8 and 13 birds/m<sup>2</sup>). FA was also greater at the highest density. The provision of simple barrier perches had a tendency to improve footpad condition. Final BW, feed conversion, and mortalities were neither affected by stocking density nor by barrier inclusion. In conclusion, this study shows a negative effect of high density on broiler footpad health and FA. Although barrier perches did not appear to reduce fearfulness, the improvement in footpad health suggests that simple barriers may provide key welfare benefits to broiler chickens.



Schematics of experimental pen layouts: a) simple barrier, b) complex barrier, and c) no barrier (control).



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# Chicken welfare is influenced more by housing conditions

*Marian Stamp Dawkins, Christl A. Donnelly & Tracey A. Jones,  
Department of Zoology, University of Oxford, South Parks Road, Oxford*

Intensive broiler (meat) chicken production now exceeds 800 million birds each year in the United Kingdom and tens of billions birds worldwide, but it attracts accusations of poor welfare. The European Union is currently adopting standards for broilers aimed at a chief welfare concern—namely, overcrowding—by limiting maximum ‘stocking density’ (bird weight per unit area). It is not clear, however, whether this will genuinely improve bird welfare because evidence is contradictory. A report, published in the *Nature* journal, on broiler welfare in relation to the European Union proposals through a large-scale study (2.7 million birds) under a range of commercial conditions provided some interesting findings. Producer companies stocked birds to five different final densities, but otherwise followed company practice, which were recorded in addition to temperature, humidity, litter and air quality. Welfare was assessed through mortality, physiology, behaviour and health, with an emphasis on leg health and walking ability. Results show that

differences among producers in the environment that they provide for chickens have more impact on welfare than has stocking density itself. The report indicated that of the commercially relevant factors that seemed to allow some companies to ‘cope’ better than others with high stocking densities, the most likely candidates were those that affected litter moisture and air ammonia, because these differed significantly among companies.

The paper concluded that, although very high stocking densities do affect chicken welfare, stocking density per se is, within limits, less important than other factors in the birds’ environment. Good stockmanship counts even in highly automated houses. Legislation to limit stocking density that does not consider the environment that the birds experience could thus have major repercussions for European poultry producers without the hoped-for improvements in animal welfare. These will come from improving the environment, nutrition and genetics of the millions of birds that we eat.

For the full article, go to: <http://users.ox.ac.uk/~abrg/papers/dawkins/Nature.pdf>

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# Poultry Meat Industry Committee and the Poultry Meat Industry Advisory Group

*Byron Stein, Secretary, PMIC*

The Poultry Meat Industry Committee (PMIC) was established by the NSW Government in accordance with the Poultry Meat Industry Amendment Act 2005 which came into force on 1st October 2005. The PMIC comprises three independent members appointed by the Minister for Primary Industries.

The role of the PMIC is to recommend to the Minister the regulatory structures required to assist the industry to operate in an orderly manner. This includes the adoption of written agreements between processors and their supplying contract growers incorporating compulsory provisions deemed necessary to ensure fair play between the parties. There are also recommended provisions included in Guidelines for Agreements which cover such areas as processor and grower responsibilities, food safety requirements, and environmental management. The PMIC has also developed a Code of Practice for ensuring orderly negotiations between processors and contract growers providing for group bargaining arrangements as well as individual grower/processor negotiations.

When requested, the PMIC also manages disputes between processors and their contract growers on any matter except price negotiations, either by mediation or arbitration under clearly stated conditions. The PMIC also considers other matters that may be raised either by poultry growers or processors or by the Minister for consideration and recommendation to the Minister – there is no limit to what the PMIC can consider although it is restricted to matters which are of consequence to the processors/growers in NSW.

The PMIC is advised on technical matters by the Poultry Meat Industry Advisory Group (PMIAG). The PMIAG consists of six industry representatives appointed under the regulations by contract poultry growers and poultry processors operating in NSW with an independent chairman appointed by the Minister. Currently the Chairman of the PMIC also chairs the PMIAG.

As well as providing advice to the Committee, members of the PMIAG can raise matters of significant concern to the welfare of poultry growers and processors in NSW for consideration by the PMIAG and if appropriate make recommendations to the Minister on such matters via the PMIC.

So what is the PMIC together with the PMIAG done for the NSW Chicken Meat Industry?

## **PMIC list of major achievements 2007–2011**

### **Act and regulations:**

- Developed and provided recommendations for the drafting of Poultry Meat Industry Regulations 2008 in accordance with the Poultry Meat Industry Act 1986, as amended.

- Developed and implemented a Code of Practice for Negotiation between Processors and Contract Growers and established Guidelines for Agreements.
- Provided dispute resolution assistance between growers and processors through formal mediation and through active facilitation on a number of occasions, particularly during the recent five-year contract negotiations.
- Kept all relevant sections of government informed about industry issues through briefings and meetings.
- Provided a regular forum for the interchange of ideas between all sectors of industry.
- Actively advised Ministers and heads of government departments about the barriers to expansion within NSW and the inconsistencies in interpretation of legal requirements for Development Applications for poultry developments between different sections of government through briefings, submissions and membership of targeted sub-committees.
- Undertaken representation to Department of Planning seeking changes to the Building Code of Australia to more accurately reflect the circumstances of the sheds used for growing poultry.

### **Conduct of PMIC and PMIAG functions:**

- Developed the NSW PMIC/PMIAG Strategic Plan to eliminate barriers to production (2006-2011, updated version 2009-2014).
- Completed a major project into the Economic Worth of the NSW Poultry Meat Industry, including securing \$90,000 in funding for the project.
- Developed and initiated strategies to roll out the results of the Economic Worth project including development of the Central North Poultry Innovation Inc as the focal point of the Tamworth meat poultry cluster. Subsequent work has commenced to extend the model into the Hunter.
- Undertaken work to develop and fund training programs for contract growers and other interested parties in conjunction with Tocal and NSW Department of Education and Training.
- Sponsored an industry member to undertake and complete skills recognition towards achievement of a Diploma in Agriculture (first meat chicken industry recipient).
- Developed a new two volume Best Practice Manual for Meat Chicken Production in NSW.
- Taken an active role in supporting the development and implementation of new odour control technologies.

### **I would like to talk to a member of the PMIC – who do I contact?**

Please direct all correspondence to: Byron Stein, Secretary, PMIC, Department of Primary Industries, 159 Auburn Street, Goulburn 2580  
T: 02 4828 6600 F: 02 4822 3261 M: 0428 259 628  
E: byron.stein@industry.nsw.gov.au

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Half page black and white, Heritage Water Tanks ad

# Poultry health bits for producers – August 2011

Dr George Arzey, NSW Technical Specialist (Poultry)

- *Infectious Laryngotracheitis (ILT)*
- *Avian Influenza*
- *Newcastle disease*
- *Salmonella*

## ILT –Infectious Laryngotracheitis

Outbreaks of ILT have been occurring in commercial flocks in NSW and Victoria for some time. Sporadic cases have been also reported in Qld.

Since the beginning of this year, the following outbreaks have been reported in NSW.

February – Commercial pullets, vaccinated

February –Broilers, not vaccinated

March – Backyard flock, not vaccinated

May – Free range layers, vaccination status not known

June – BY flock, not vaccinated

June – Free range layers, not vaccinated

July – Breeders, not vaccinated (vaccine spread, not really an outbreak)

No cases have been reported in NSW since July 2011.

Vaccination of poultry against ILT by drinking water is the most convenient method of vaccine application but it is also a method that is subject to more possible mistakes and fluctuations in vaccine intake within the flock. As a result, circulation of the vaccine within a flock might result in the otherwise mild strain of the virus changing to a hotter strain causing a problem within the flock or in adjacent flocks.

In previous years a few layer flocks in NSW and Victoria broke with ILT following eye drop vaccination. This raised a few questions about the ability of the vaccines to protect against some of the field viruses.

ILT breaks in vaccinated flocks have been reported in other countries and in some cases attributed to faulty vaccination. In NSW in 1986/7 out of 8 layer flocks with ILT, five were vaccinated flocks where the vaccine was given either by eye drop or by drinking water.

The duration of immunity against ILT following vaccination has been a source of some considerable debate over the years. Duration of immunity depends on many factors including the number of times the flock is vaccinated, the route of vaccination method and the technique.



*Dr George Arzey, NSW Technical Specialist (Poultry)*

In a trial conducted by NSW DPI which involved challenging birds vaccinated with the 2 Australian vaccines (SA2 and Nobilis ILT), it was demonstrated that long term immunity lasting the full production cycle should be expected provided the vaccine is administered correctly.

## Avian influenza

Highly pathogenic H5N1, the 'Asian bird flu strain' has not disappeared from the global scene and human and/or bird cases are being reported occasionally in a few countries including; Bangladesh, Cambodia, China, Egypt, Hong Kong, India and Israel.

World wide, since 2003, three hundred and thirty one people have died from H5N1. The latest human fatality from H5N1, a 6 year old girl was reported in Cambodia in August 2011. This case was associated with infected village poultry.

Highly pathogenic H5N1 has not been detected in Australia in either wild waterfowl or poultry. However, low pathogenic (LP) avian influenza viruses have been detected sporadically in wild waterfowl and on rare occasions in domestic poultry in Australia.

Significant fluctuations in egg production should be regarded as one of the useful tools for early detection of AI viruses.

## Newcastle disease

The last Newcastle disease outbreak was reported in October-December 2002 in Horsley Park NSW.

A compulsory Newcastle disease vaccination program has been in place in NSW since 2003. In some areas (Mangrove Mountain) vaccination started as early as 2000.

In NSW, broilers, layers and breeders are required to be vaccinated.

Broilers are required to be vaccinated only with live V4 vaccine but layers require V4 live as well as inactivated NDV vaccine. Broiler breeders can be vaccinated repeatedly with live NDV V4 vaccine or similarly to the layers with both V4 and inactivated vaccine.

All NDV vaccine purchases and usage on flocks require a permit.

The costs of vaccination are not insignificant and it has been estimated that the cumulative cost of the vaccination program since 2003 until now could be in the vicinity of \$50 million.

The direct and indirect cost of the Mangrove Mountain ND outbreak in 1999 to the community and industry was estimated to be approximately \$225 million.

There have been a few changes to the vaccination program in some States, however, not in NSW or Victoria that are regarded as higher risk jurisdictions than the other States.

ND outbreaks have not been reported in Australia since the introduction of the vaccination program. The surveillance that has been carried out by industry and jurisdictions demonstrates the absence of virulent or semi-virulent viruses in poultry, however, it is difficult, when the population is vaccinated, to be certain that the entire range of ND viruses capable of mutation to a virulent virus are not present or are present at a very low and perhaps insignificant level.

The National ND Management Plan clearly states; "a risk-based exit strategy by 2012 that will potentially minimise or eliminate vaccination as a requirement to prevent outbreaks of Australian-origin ND".

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Hence, it is clear that the vaccination program was not designed to be carried out indefinitely but to be assessed towards 2012 in order to try to evaluate the acceptability of the level of risk associated with cessation of vaccination.

It is clear that this assessment would not be an easy task and some of the potential approaches that may be considered are; gradual cessation of vaccination in different jurisdictions or regions, gradual reduction of vaccination of different types of poultry stock, or greater flexibility in the application of some vaccines.

## Salmonella

Australia has been fortunate since *Salmonella enteritidis* (SE), that devastated the egg industry in some countries, has not been associated with eggs and egg farms in Australia.

*Salmonella enteritidis* has been associated recently with a mass recall of eggs in the USA and in Europe it was responsible for approximately 60% of human *Salmonella* outbreaks in 2009.

The joint NSW/Victoria *Salmonella enteritidis* accreditation and monitoring program has been in place since 1996 (in NSW) and Victoria since 2004. The program is designed to detect an early incursion of SE into flocks.

It is expected that the NSW Egg Safety Program that is currently being rolled out will further reduce the level of potential contamination of eggs from farms and along the food chain.



# Red flag issues



## Paramyxovirus infection in pigeons Poultry farmers urged to ensure strict biosecurity measures are maintained.

### *Background*

A strain of Avian Paramyxovirus not previously found in Australia has been confirmed as causing deaths in a number of fancy and racing pigeon flocks in Victoria. The reported mortality rates in adult birds are between 50 and 100%.

### *This paramyxovirus is not bird flu.*

At this stage, there are no reports of this virus causing disease in other states including NSW, in wild birds or other types of domestic or commercial birds.

Government animal health authorities have agreed to prioritise disease investigations of pigeon and other bird holdings where disease is suspected.

### *What is paramyxovirus?*

A virus which infects birds, including chickens and turkeys and is associated with respiratory disease or decreases in egg production. Can potentially cause significant mortalities in flocks.

### *Signs and symptoms in infected birds*

The first signs are usually increased thirst, diarrhoea, regurgitation, loss of appetite, respiratory signs and reluctance to move and fly.

Nervous signs may develop early (before diarrhoea), and include: trembling of the wings and head, tumbling on landing, partial paralysis of the wings and legs and twisting of the neck. In some cases, birds attempting to feed may be unable to pick up grain.

### *What can I do?*

Stringent biosecurity procedures are the best defence. Commercial poultry farmers are urged to ensure their biosecurity protocols are in place and are being implemented. Increased mortalities or a drop in production should be reported to your processor or consulting veterinarian for further investigation.

## Did you Know...?? ALL State OH&S Regulations/Standards go 'National' from January 2012.

The NSW OHS Act (as we know it) will cease to be used as of January 1st 2012 when all states in Australia will become aligned as far as OHS regulations, standards and codes of practice are concerned.

- The "New" reference document will be called the "Work Health and Safety Act".
- This is the biggest single change to happen to OHS in a decade.
- The aim of the reforms is to ensure equal standards apply across the nation.

For more information on the changes to NSW OH&S legislation and how this may impact on you visit <http://www.workcover.nsw.gov.au/newlegislation2012/WhatsnewforNSW/Pages/default.aspx> or type in Workcover NSW in your favourite internet search engine and follow the links. Alternatively contact WorkCover on 13 10 50 for more information.

## *New Food Safety Standards for Poultry Production (eggs and meat) – impacts and requirements of chicken meat and egg growers*

Up until recently food safety reporting requirements have primarily focussed on the food processing industries (abattoirs, poultry processing plants, food preparation and supply services). This has now changed to INCLUDE GROWERS (meaning everyone producing and selling chickens for human consumption) with the gazettal of the Primary Production and Processing Standard for Poultry Meat (and a similar standard for egg producers) in May 2010, will full implementation of the NEW standards scheduled in May 2012.

So what does this mean for growers and egg producers? i.e. how will this affect what you do?

1. What is new is that the food standard now also specifies measures to be taken on farm during the raising of poultry to ensure the contamination of birds with Salmonella and Campylobacter when arriving at the processing plant are as low as possible.
2. The Poultry Meat standard requires chicken farms to have a food safety management system in place. This is essentially a documented system identifying the areas of risk such as rodents, water, movement of people and machinery on and off the farm, feed etc and what measure are in place to minimize these risks.
3. Each farm will have to have an agreed Food Safety Management Plan setting out the way biosecurity requirements are being met and how compliance will be demonstrated (i.e. what records will be kept to show compliance).

4. Specifically, each grower must have a Food Safety Management Plan which sets out how their business proposes to manage the identified hazards associated with the following:
- Inputs (e.g. chicks, stockfeed, agricultural, veterinary and cleaning chemicals, water, poultry, litter)
  - Waste disposal (e.g. removal of dead poultry, waste water, sewage, litter, garbage and manure)
  - Health and hygiene (e.g. poultry handler personal and visitor hygiene and practices practiced)
  - Skills and knowledge (e.g. staff required to demonstrate competency)
  - Premises equipment and transport (e.g. premises, equipment and transport vehicles are designed, constructed, cleaned and maintained in an appropriate state. Business implements pest, vermin, domestic and wild animal control and cleaning programs)
  - Sale and supply (e.g. records for unsuitable poultry supplied by the producer are maintained)
  - Traceability (e.g. poultry producers implement systems to enable the immediate recipient of poultry handled by the business to be identified as well as implement systems to allow persons that supply the poultry producer to be identified)



The new food safety standards may be enforced by NSW Food Authority through a compliance program supported by regular audits and checks of grower records and documentation. This will impose a more stringent record keeping and reporting requirement on growers and egg producers. The industry is currently working with stakeholders to make this reporting simple and easy to do and to combine it with other reporting requirements in an effort to reduce duplication of records and reporting requirements.

For more information on the new Primary Production and Processing Standards go to:  
 For meat chicken growers: <http://www.chicken.org.au/page.php?id=240>  
 For egg producers: <http://www.foodauthority.nsw.gov.au/industry/industry-sector-requirements/eggs/#New-food-safety-law>

Half page black and white, Australasian Agricultural Services Pty Ltd ad

## John Camilleri hands over reins of Baiada

John Camilleri has announced that he will be stepping down as Managing Director of Baiada Poultry Pty Limited in early October 2011. Simon Camilleri will assume the role of Managing Director. John Camilleri will remain as non executive chairman of the board of the parent company and continue to manage aspects of the group's other business activities.

## Aviagen Australia ships first GP breeders to China

From its production base in Griffith, NSW, Aviagen Australia achieved an important milestone as a production facility for the Asian region, by successfully shipping Arbor Acres Plus grandparent (GP) chicks for the first time to a customer in China.

Shipments from the US and also the UK have served as the main supply locations for over 30 years to China and Asia. Now, a successful shipment from an Australian production facility offers customers in the Asian region an alternative supply source with the added advantages of shorter distances and a similar operational time zone, benefiting chick arrival and communication throughout the delivery.

"We were pleased that the birds arrived safely, in good health and compliance with the Chinese import regulations and health certificate requirements," commented Dr Joe Ng, Aviagen Technical Service Manager, who provided additional supervision by accompanying the birds on the direct Air China flight from Sydney to Beijing.

Responsibility and coordination of activities to ensure a successful shipment rested with Craig Dawe, his

Aviagen team and ANZ Veterinarian, Dr Susan Bibby.

Much of the early work sourcing Arbor Acres Plus grandparents from Australia for delivery to China was carried out by Han Feng, Vice President China and Bill Souther, Senior Vice President Asia.

Mr Souther said: "China is a dynamic industry and we are very proud to be part of it. From 1986, China has been supplied by the UK and US, now we are particularly happy to be able to supply China from the additional location of Australia, offering further security to the future growth and development of their industry."

Source: [www.thepoultrysite.com/poultrynews/23309/aviagen-australia-ships-first-gp-breeders-to-china](http://www.thepoultrysite.com/poultrynews/23309/aviagen-australia-ships-first-gp-breeders-to-china)

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## Orego-Stim Gains Organic Certification

Orego-Stim, the natural feed additive from Meriden Animal Health, has been certified for use in organic systems in Australia by the Bio-Dynamic Research Institute.

Orego-Stim® is already certified by Organic Farmers and Growers Limited for use in organic rearing systems, ensuring that it can be included in the diets either via the drinking water or the feed of organically reared poultry and pigs.

Regulatory specialist, Inga Shahin, said: "The certification behind all organic animal products ensures that no chemicals are used in the rearing of animals. Using organic products is a way of ensuring the use of healthy, traceable and sustainable ingredients in animal's feed."

Damian Moore, Director of Feed Safety, added: "There are very few organic feed additives available

on the Australian market. Now with Orego-Stim gaining approval, organic farmers have a greater choice in selecting suitable feed additives which can give their production systems real benefits in terms of production and flock health. This is a product that can really add value to organic farming operations."

Source: [www.thepoultrysite.com/poultrynews/23257/oregostim-gains-organic-certification](http://www.thepoultrysite.com/poultrynews/23257/oregostim-gains-organic-certification)

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## First RSPCA approved chicken in SA, TAS & VIC



For all creatures great and small.

South Australians, Tasmanians and Victorians will have easier access to higher welfare chicken with the launch of the first RSPCA Approved chicken in Coles.

The chickens are raised in the Bendigo Valley on farms that meet the RSPCA's high animal welfare standards.

"We're very excited about this new product line. It's the first time on the East Coast that the RSPCA has been able to provide a higher welfare meat chicken option to consumers, who we know are looking for it," said RSPCA Australia CEO Heather Neil.

"The key objective of the RSPCA Approved Farming Scheme is to improve the lives of farm animals by moving away from conventional farming systems to production environments that better meet the animal's welfare and behavioural needs.

"As a result of this new product in Coles and the RSPCA's work with chicken farmers – hundreds of

# Industry News...

thousands of meat chickens will have a much better life."

The RSPCA'S meat chicken standards can be applied to bird-friendly indoor (barn) or outdoor (free-range) systems. RSPCA Approved Bendigo Valley chicken is an indoor system and is labelled as such so consumers can make a fully informed choice.

Animal welfare on RSPCA Approved farms is much higher than what is required by law or recommended in various state codes of practice. "Achieving a high level of welfare on meat chicken farms entails getting the balance right between all the housing conditions that can have an impact on bird welfare such as space, lighting and enrichment.

"RSPCA assessors regularly visit RSPCA Approved farms to ensure our high standards are maintained."

On all RSPCA Approved chicken farms:

- chickens have more space
- chickens are free to forage and dustbathe in litter
- chickens have straw bales or other objects to investigate
- chickens have perches to sit on
- chickens have a longer dark period so they can rest properly.

To view RSPCA Approved Farming Standards visit <http://www.rspca.org.au/what-we-do/approvedfarming-scheme/>

## Increasing demand for animal welfare in consumer purchase choices

Coles have acknowledged that their push to stock only hormone-free, free-range meat is a marketing ploy. "It's what consumers want!" Woolworths will not be following suit.

Coles spokesman Jim Cooper admitted to being swayed by consumer demand on animal welfare. "You bet!" says he said today, answering claims that their move to hormone-free, free-range meat is a marketing ploy. "It's what consumers want!"

But he dismissed claims made by some meat producers on this site that the exercise was a "cynical ploy". "By far the majority of calls and customer responses we get to any issue – including price cuts, or what products we stock – is animal welfare. People want hormone-free, ethically reared, free-range animals and the calls and feedback on this issue never stop.

He told journalist Ruth Ostrow that: "Initially we chose hormone-free meat because of the taste and quality," a point which renowned chef, owner of Rockpool, Neil Perry, passionately agrees with.

"But it was clear from our switchboards that consumers wanted the whole deal, hormone-free, compassionately-raised animals, sow stalls phased out, but they don't want to have to pay more. So we are listening and not passing on costs to them rather absorbing it ourselves."

And it's working. Last month Coles owner Wesfarmers reported a seven per cent rise in quarterly sales in its supermarket chain as reported in the Media.

Coles managing director, Ian McLeod, said: "Coles has responded by removing added hormones in our beef, moving to phase out caged eggs by 2013 and moving to phase out sow stall pork by 2014. Higher levels of trust in quality and sourcing programs have been rewarded with higher levels of fresh food sales as a result."

A spokesman for Woolworths, Benedict Brook, told Ruth Ostrow that their strategy was not to switch to hormone-free meat rather offer



consumers a choice to buy it in a limited range. He said that Woolies strategy to slash prices of regular meat was also leading to higher sales of meats across the board, and that at this stage there was no need to change focus. I referred him to our comments.

Because as most of the 600-plus comments posted on this website have indicated, animal welfare is an issue that consumers feel very strongly about. Especially as consumers become more educated about the ethical and health issues involved in meat rearing.

As one blogger on Ruth Ostrow's website wrote, "If you can get ethically-raised, hormone-free meat at a similar price, why wouldn't you do it?"

Mr Cooper dismissed claims by some farmers on the site that Coles is imposing rules on the local industry that it does not impose on overseas suppliers of smallgoods.

"Firstly 100 per cent of our fresh beef, chicken, and pork are from home grown sources. Smallgoods make up perhaps 20 per cent of our total meat sales and of this we take a percentage from abroad. As for where we are getting our meat from, there are all sorts of spurious claims, but the vast majority comes from Europe and Canada where they are already phasing out sow stalls. We have asked them to comply with the same standards we are giving the

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local industry – to phase out sow stalls by 2014. Added hormones (HGP) are already banned in Europe.”

Coles buys 6 per cent of all local meat products per year, which is why the issue is of significance to the farming industry. But Cooper says: “With regards to us imposing onerous conditions on our industry, it’s simply not true. Coles has in fact been working closely with producers over the past two years to ensure there was a system that was equitable and did not cause any damage to their businesses.

“We acknowledge producers’ claims that it costs more to produce hormone-free meat and we have come forward with an offer to pay more for their meat, and not pass the cost on to consumers.”

Sourced: <http://ruthostrow.com/customers-want-animal-welfare-coles/>

## Pepe’s Ducks wins biosecurity farmer of the year award



By any measure, Pepe Bonaccordo is one of Australian agriculture’s great success stories.

Starting in 1976 as a backyard business with just 22 Pekin ducks, Pepe’s Ducks now supplies 80,000 birds a week out of its facility at Windsor, NSW, and is the largest producer of ducks in Australia and New Zealand. Having put home-grown duck firmly on the Australian dinner plate, over the past two decades Mr Bonaccordo has been cementing the future growth of the industry by developing and enforcing uncompromising standards on biosecurity, food safety and animal welfare.

These outstanding efforts saw him become this year’s Biosecurity Farmer of the Year at the Australian Farmer of the Year Awards held in Sydney.

“When it comes to biosecurity, for many years we were under the umbrella of the chicken industry,” Mr Bonaccordo said. “But a duck’s needs are quite different to those of a chicken. Put simply, if you put a duck in a bucket of water and you put a chicken in a bucket of water – one will float, the other won’t. That goes all the way through to factors like the densities of our sheds, the way we grow the ducks, husbandry, animal welfare, water requirements etc.”

Quarter page black and white, Central Poultry Industries Pty Ltd ad

In 2006, in an effort to develop industry-wide biosecurity standards, Mr Bonaccordo drove the establishment of the Australian Duck Meat Association, along with the other major player in the market (Luv-a-Duck). The association’s crowning achievement was the production, last year, of the Farm Biosecurity Manual for the Duck Meat Industry. The manual identifies areas of risk common to all duck enterprises along with appropriate measures to minimise those risks.

While Pepe’s handles most of the breeding, hatching and slaughter itself, 90% of the growing of the animals is now done by contracted growers and the company has been hard at work rolling out the manual across the industry.

“We’ve seen a lot of issues with poultry diseases, particularly in Europe and Asia,” Mr Bonaccordo said. “We thought that we needed to do something as an industry to ensure our biosecurity. We’ve also had more of our people trained in emergency animal disease response – another step that we’ve taken so that if there ever was an emergency outbreak we were prepared for it.”

Duncan Rowland, Manager of Biosecurity Planning and Implementation at Animal Health Australia, said Mr Bonaccordo demonstrated a clear passion for improving biosecurity, not only in his own business but for the broader industry. “The judges were particularly impressed with the market drivers Pepe’s have introduced for better biosecurity and the way they’ve demonstrated that biosecurity systems provide a

A4 black and white, Titan Poultry Equipment Pty Ltd ad

standard of excellence that helps meet customer needs," Mr Rowland said.

Hosted by Kondinin Group and ABC Rural, and sponsored by Plant Health Australia and Animal Health Australia, the Biosecurity Farmer of the Year award recognises the efforts of producers dedicated to keeping their operations free of diseases, pests and weeds. The winner and finalists demonstrate that successful biosecurity practices are not only part of responsible farming – they can also be great for business.

Article sourced from: <http://www.farmbiosecurity.com.au/>

## Free range egg labelling under the spotlight

Recent articles in *The Land* and ABC Rural have placed the spotlight on free range labelling for eggs. A private members bill will be debated in parliament following repeated claims across the industry that some large 'free range' egg producers are running stocking rates in excess of the egg industry code (1500/ha for free range enterprises). Other producers are accused of labelling eggs from conventional cage systems as 'free range', potentially compromising legitimate free range producers and damaging the integrity of free range marketing labels.



Notably, the private members bill proposes to enforce the 1500 bird/ha limit through legislation and further proposes to reduce outdoor free range stocking densities to 750/ha by 2015. There is also a call amongst proponents of the private members bill to limit indoor stocking rates to a maximum of six birds/m<sup>2</sup> on farms with more than 4000 birds.

Whilst Australian Egg Corp supports a legal definition of 'free range', it has expressed significant concern about the potential implications of any legislation forcing the free range egg producers to reduce stocking rates to 750/ha. This reduction in stocking rate would

substantially force up free range egg prices and more notably, Australia's 330 egg production farms would need to become 41,000 farms in the next 40 years. This is clearly not feasible.

Whilst the chance of this bill progressing into legislation is poor, it is worth noting that this article, together with trends in Europe and the USA, suggests that the animal welfare debate is not going to disappear and that the industry needs to consider a proactive approach to the issue rather than reacting to the changes that are no doubt coming their way.

## Chicken tops the grocery list

A 2009 Rural Industries Research and Development Corporation (RIRDC) survey into chicken meat usage and attitudes confirmed the title of chicken as most popular meat in Australia.

Key results and findings from the RIRDC survey were:

1. Chicken and beef continue to dominate consumption in the protein category – however consumption for the category is increasing across the board.
2. 94% of the population are currently open to the consumption of chicken – highest in the category. Chicken and beef each comprise approximately one quarter of main meal proportions eaten within the past month in home, with Lamb and Fish at significantly lower levels.
3. Chicken consumption frequency as a main meal has not significantly changed since 1998 with more than 8 out of 10 main grocery buyers having eaten chicken as a main meal within the past week in home.
4. Consumption within the past week of Lamb, Fish and Seafood other than fish has increased significantly since 1998 while meals without meat on the other hand have decreased significantly at a national level.
5. Chicken is primarily purchased as an automatic choice because of its popularity in the household, especially amongst children. It is considered to be a food that can be consumed often, and of value for money. Unlike other players in the market, chicken is not currently strongly associated with any health platforms in the market.
6. Chicken concerns are prevalent in the market however are not motivating enough for a radical change in purchase behaviour. These issues include antibiotics, the (incorrectly) perceived use of steroids and hormones, animal welfare and safe

food handling. At least one quarter of respondents stated that these concerns did not influence the way they shop and buy chicken.

In addition to surveying frequency of purchase and consumption, the survey also attempted to understand the key drivers and motivators amongst consumers for chicken meat. Results are shown in the graph below:

The full survey report can be downloaded free of charge from: <https://rirdc.infoservices.com.au/items/09-080>

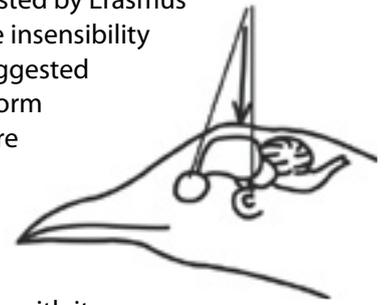


Table. Chicken purchase motivators.



(from page 7)

pressure of 827kPa was tested by Erasmus and resulted in immediate insensibility followed by death. It is suggested that operators use some form of restraint for large mature birds for ease of handling and accuracy, and also to reduce the number of stock people required. Lay the bird on its sternum with its neck resting on the ground.



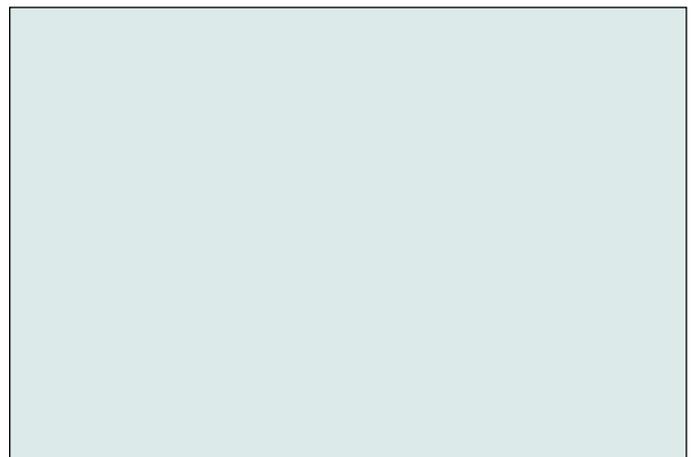
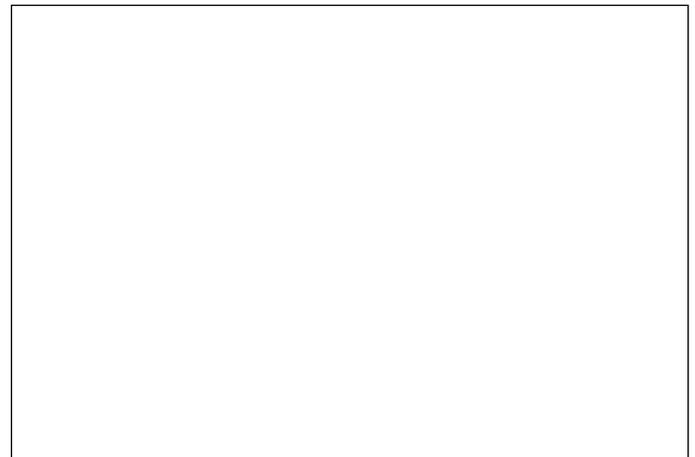
Target: Apply the pistol perpendicular to the frontal bone, midline between eyes and ears where there is a natural depression in the skull. This placement is directly above the cerebral cortex upon which consciousness depends. It is also the thinnest part of the skull. Shoot twice in succession.

For additional information or to purchase a Zephyr Stungun, operators can contact Bill Morton, Department of Physics at the University of Guelph in Canada at [bmorton@physics.uoguelph.ca](mailto:bmorton@physics.uoguelph.ca)

*Erasmus, M. et al. (2010) Using time to insensibility and estimated time of death to evaluate a nonpenetrating captive bolt, cervical dislocation, and blunt trauma for on-farm killing of turkeys, Poultry Science, 89: 1345–1354.*

## The drumstick marketplace

Quarter page black and white, District Realty Pty Ltd ad



A4 black and white, R&DG Sanday ad