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7 August 2008

Ms Jeanette Radcliffe  
Committee Secretary  
Senate Select Committee on Agricultural and Related Industries  
Department of the Senate  
PO Box 6100  
Parliament House  
CANBERRA ACT 2600

Dear Ms Radcliffe,

**Re: Submission for Inquiry into Food Production in Australia**

I refer to the Inquiry into Food Production in Australia by the Senate Select Committee on Agricultural and Related Industries.

Please find enclosed our submission for the above Inquiry.

Yours sincerely,

Joe Lederman  
**Managing Principal\*\*\***

**FOODLEGAL**

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Accredited Specialist

- Tax Law
- Business Law

# Senate Inquiry on Food Production in Australia

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FOODLEGAL Submission

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## The Need for National Food Reserves

By FOODLEGAL, August 2008

Submission to Senate Select Committee Inquiry into Food Production in Australia

### **Joe Lederman**

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Adjunct Professor of Food Law at Deakin University;  
Joe Lederman is well recognized as a lawyer and consultant specializing in food industry legal issues and compliance law; accredited by the Law Institute of Victoria as a Specialist in Business Law and also as an Accredited Specialist in Tax Law (L.I.V).

### **John Gao**

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Lecturer, Department of Information Systems, The University of Melbourne  
Reeva Lederman has completed a PhD in Information Management and has expertise in e-commerce and business systems.

In April 2007, FoodLegal was commissioned by the Federal Department of Agriculture, Forestry and Fisheries (DAFF) to provide a review and study of food distribution systems and technologies for usage in the “Management of Food and Grocery Distribution in the event of a Human Influenza Pandemic”.

FoodLegal is a multidisciplinary consultancy and law firm servicing, advising and providing advocacy services on regulatory compliance and legal and commercial matters for food companies, food industry groups, and consumer and producer groups connected with the food industry.

1. **Observations and Recommendations from Our Study:** In the course of preparing FoodLegal’s said report for DAFF, we made various observations that were outside the immediate terms of reference for that report. This Submission is now provided in order to bring our observations to the attention of the Senate Select Committee on Agricultural and Related Industries for the purposes of its Inquiry into Food Production in Australia. We make various recommendations and urge the Committee to investigate further steps for their implementation.

2. **Relevance to Different Scenarios:** Although the report for DAFF dealt with food distribution systems in the event of a human influenza pandemic, our observations would also apply more generally to any food shortage situation. These may include:
  - Situations involving social quarantining;
  - Situations involving major transport disruptions such as might arise because of any major fuel shortages or fuel price increases;
  - Food supply shortages caused by natural disasters; and
  - Other supply chain issues.
  
3. **Maintenance of Free Trade Despite Emergency Plans:** The writers of this Submission do not want to be classed as promoters of survivalism nor as doomsayers. We merely wish to draw the attention of the Senate to the fact that greater Australian governmental and inter-governmental planning is required to consider likely food shortage scenarios and to consider the wider ramifications that make food shortages very likely. We also believe that there is a serious need for creating national food stockpiles in order to have adequate food reserves in any such circumstances. These stockpiles could be revolved on a recurrent basis without impacting adversely on free trade in the market place.
  
4. **Reality of a Pandemic Threat:** As demonstrated by the Federal Government's funding of an additional \$166.5 million over two years in vaccine reserves for a human influenza pandemic in the 2008-2009 Federal Budget on top of the funding of \$133.6 million over 5 years in the 2004-2005 Federal Budget, the threat of a human influenza pandemic is a real one. Despite the preparation of a recommended short-term pantry list <[www.pantrylist.com.au](http://www.pantrylist.com.au)> for emergency situations by the Federal Government supported Food Industry Working Group, Australians are not sufficiently informed or prepared for a food shortage arising out of any such emergency situations.

5. **Current Lack of Food Resources:** Australian supermarkets provide up to 80% of Australian food (fresh or packaged) sold by retail but hold little or no reserves or food storage facilities. The inventory systems of their distribution centres are designed for short-term methods of inventory control such as pick-and-pack (Lee,H and Whang,S, 2005),<sup>1</sup> flow-through (Harrison,T, Lee,H, Neale,J , 2003),<sup>2</sup> or cross-docking (Harrison,T, Lee,H, Neale,J , 2003).<sup>3</sup> Under these systems there is minimal buffer stock held, let alone any long term reserves or stockpiles. Stock replenishment is triggered by customer demand when electronic monitoring of stock levels signals a need for replenishment. Consequently, most inventory replenishment systems only order new stock once an item has been purchased by a consumer, so there is no reserve capacity in the supply chain and it is largely dependent on consistent consumer purchasing patterns. Unless food reserves exist, it is likely that food shortage situations could be exacerbated in any situation where there is some form of disruption to the supply chain and also where consumer buying patterns change from making smaller purchases regularly to larger purchases less often. The current highly efficient system of supply chain management is likely to suffer break downs when there is significant volatility or disruptions in consumer purchasing patterns.
  
6. **Emphasis on Minimal Inventory:** Food supply chain participants within the grocery industry emphasise the need to reduce food inventory across the grocery supply chain in order to improve profitability through greater efficiencies and supply chain strategies that require less or no inventory. The consequence of low inventory levels would turn into a major problem of widespread food shortages within a very short timeframe (probably less than a week) in the event of any major crisis or catastrophe such as a human influenza pandemic.

Issues we believe the Senate ought to consider, should include the following:

7. **Government should encourage the creation of food reserves and reserve food supply capacity:** Given the possibility of extreme opposite

pandemic scenarios – ‘all or nothing and everything in between’ - it is imperative that government and private industry act now to do what is socially responsible and yet cost beneficial. As the burden of ensuring distribution of food during a pandemic crisis would weigh heavily on private industry retailers in particular, the government should consider how best to implement measures now to ameliorate industry’s lack of capacity to provide this essential community service and to avert a disaster. Any interim primitive food quota system is unlikely to work as an effective and equitable point of sale system without considerable prior organisation and, in any case, such a system will not be able to counter the prospect of people having to revisit the same food outlet regularly since people will then be living on a subsistence basis with inadequate built-up reserves of their own. In the course of undertaking research for the DAFF Report, we spoke to a number of food suppliers who gave anecdotal information pointing to the prospect of a systemic failure for food supply were a pandemic to occur. None of these people were willing to be quoted by name. We believe that problem issues might be more readily identifiable if key suppliers (of essential foods and any other essentials) were surveyed by government asking such questions now to plan for the creation of national food reserves:

1. Generally: What is your capacity to increase production suddenly in a crisis situation? How long would it take to gear up to vast increases in quantities needed throughout Australia? What sort of output measured in volume over what period, is possible? Would you be able to access most of the raw materials locally? What consumer-pack packaging would be available for vast numbers in large quantities? Would you have enough packaging materials in stock?
2. What steps might be required if production priority were needed to be given to simpler food product types in your product range?

3. What is the "simplest long-lasting product" in your view for mass production by your company for emergency supplies? What is your capacity to increase production of this product in a crisis situation? How long would it take to gear up to vast increases in quantities needed throughout Australia for that product? What sort of output measured in volume? Would you be able to access most of the raw materials locally? What large-sized consumer-pack packaging would be available for vast numbers in large quantities? Would you have enough packaging materials in stock?
4. If there was a food crisis (e.g. a panic run on supermarkets caused by customers wanting to stock up their pantry suddenly in response to fear caused by a pandemic outbreak that might require long term social quarantining measures), what are the reserves (measured in terms of days of supply or production) for each product category (or major product groups) that would be available from your manufacturing plants and warehouses to meet the sudden extraordinary demand?
5. What warehousing capacity does each company have to store additional inventory?
6. Where is such warehousing located in relation to the major urban centres?
7. If there is a serious prospect in the event of a pandemic that transport to and from Australia would be restricted, (including shipping by sea and by air) what percentage of production could be affected? What is the relationship between the size of export and domestic markets for your various long lasting products - measured by physical quantities (or by dollar value if possible)?

If government consideration ought to be given to the stockpiling of additional supplies of essential goods, the government would also need to consider the locations and security for stockpiled inventory (apart from the usual arrangement of distribution centre networks operated by or on behalf of the major supermarket groups) and their location near major urban areas, their safeguarding and maintenance in a hygienically secure environment, free from the prospect of theft or contamination.

8. **More needy ought to get higher priority:** The paramount issue in the event of a severe food shortage caused by a human influenza pandemic is to ensure that, as far as possible, those who are neediest have highest priority to access limited food supplies. Equity will demand that for an emergency situation, a controlled system of food distribution at retail point of sale otherwise grants fair and equal access to limited food supplies to all consumers.
9. **Public confidence required:** A severe food crisis will undoubtedly be accompanied by fear, as well as a basic human instinct to look after oneself. The government and industry will need to enlist the cooperation of the general public for any retail point of sale system to be effective. The degree of cooperation will directly correlate to the general public's confidence in the government's and industry's ability and preparedness to manage a food crisis.
10. **Planning for the worst, irrespective of unpredictability:** In 2006, researchers at the Lowy Institute modelled the potential human and economic costs of a global influenza pandemic<sup>4</sup>: these range from about 1.5 million deaths worldwide and a cost of more than \$300 billion to more than 140 million deaths and economic losses well over \$4 trillion. Others have estimated the death toll could be 300 million. Nine years ago, the world prepared for the Y2K bug. At the time, there were apocalyptic predictions as to what potentially could happen as we began the new millennium. So too, it may be that in spite of or because of the enormous combined efforts of



governments and individuals, a human influenza pandemic of catastrophic proportions may never eventuate. Even if a pandemic does eventuate, it is impossible to predict what its characteristics will be: whether it will be widespread or localised; what percentage of the population will be infected; how severe the disease will be; what impact the health and emergency systems will have on mitigating the disease's effects.

In June 2006, the Federal Government released the Business Continuity Guide for Australian Businesses.<sup>5</sup> The Guide provided the following outlook based on advice from the Federal Government's medical experts:

*"The prospect of an influenza pandemic is real. The very nature of an influenza pandemic in Australia will be unlike any other modern disaster and will create new challenges for business continuity planners. It may:*

- *Arise rapidly and spread quickly;*
- *Make people very ill and many could die;*
- *Generate unprecedented levels of fear and anxiety;*
- *Occur in several waves, each lasting for several months;*
- *Require full community mobilisation;*
- *Result in health care services not being able to provide direct care in some cases; and*
- *Result in very high staff absence rates for some periods during the pandemic."*<sup>6</sup>

*"The most significant impact on Australian businesses would be on staffing levels. Experts suggest that business should plan for 30-50 per cent staff absences at the peak of the pandemic. For some businesses, these kinds of absences would be devastating – particularly in our essential service sector."*<sup>7</sup>

The Guide is also urging businesses to be prepared for 2 or 3 waves of infections.

Further, a report from the Federal Department of Health and Ageing entitled “Australian Health Management Plan for Pandemic Influenza” published in 2006 stated:

*“The length of each of these phases is uncertain, but the pandemic could come in several waves of up to 12 weeks each in duration. A pandemic is most likely to start where animals and humans live closely together and where the population is more crowded.”<sup>8</sup>*

**This means that the influenza pandemic is anticipated to last 6 months (24 weeks) or potentially even 9 months (36 weeks) .** During that period, many more people would be socially quarantined as the best means of controlling the spread of the disease. (This was the only way in which the SARS outbreak could be contained in Asia in 2003<sup>9</sup>). In such a social quarantining scenario, food consumers would be actively or forcibly discouraged from shopping. Conventional supply chains and food buying patterns could not function.

- 11. Rationing still requires food availability and prior education:** The Australian community needs to be given adequate time to prepare for the contingency of a food shortage that might arise and there needs to be government encouragement given to assist industry, community and emergency organisations, and consumers in preparing for such a food shortage. Government should give consideration to forms of assistance such as a transparent government-sponsored publicity campaign, similar to the “Get Ready, Get Thru” whole-of-government campaign run by the New Zealand government. The risk of failure in organisation is increased by any period of inaction in ongoing preparedness. The idea of having an adequate food supply to allocate (by quota or by other rationing method) would be much more difficult to implement at the point when the pandemic arrives if there is a sudden shortage of food that has not been planned for well in advance. Rationing or quota systems are impossible to implement if there is

insufficient food available to be distributed, irrespective of the sophistication of the distribution system.

12. **Defects of the 'basic food quota' model:** A primitive quota system will not cope adequately with a substantial food shortage in a pandemic situation because such a system will do little to reduce the prospect of people returning regularly to the supermarket to re-stock, once their limited quota is consumed or even more frequently if the system allows repeated purchasing without verification of personal ID either at the same store or at different stores.
  
13. **A need for Government intervention:** Immediate Federal government intervention is necessary and desirable for the following reasons:
  - (a) A Federal Government 'whole of government' approach co-ordinated by a single Minister will be necessary for the successful implementation of food distribution logistics systems and infrastructure. This includes not only hardware and software but also adequate support services and personnel;
  - (b) Federal Government subsidisation will be necessary to finance the extra infrastructure to counter the more severe prospect of food shortages that would occur in the event of a pandemic if such infrastructure was not created as soon as possible. This investment by government must occur well before the occurrence of a human influenza pandemic – even if the timing of that event cannot be predicted but for which the probability remains high;
  - (c) Federal government action to be co-ordinated with State and Territory and local governments and community and emergency organisations would be needed for any planned stockpiling by industry and to subsidise the stockpiling and storage of adequate supplies or to increase the productive capacity of industry to meet the increased demand. Industry by itself is unlikely to have an adequate financial incentive to plan for a future contingent event, namely a community-wide food shortage. Without this, the risk of a

breakdown in the food supply chain becomes more likely. Preparatory action is also likely to be required to forestall the consequences of likely panic buying (which might occur at some point in time). In this regard, government needs to consider subsidising a build up of food reserves or to increase capacity in production in consumer sized packaging in sufficient quantities to provide adequate essential foodstuffs in the most likely affected geographic areas (especially the major cities and towns). Modern apartments and housing do not encourage substantial food pantries or food preparation areas. They assume that ready-to-eat food will always be readily available by purchase nearby or within a short car-distance. Food reserves will be needed to cope for the eventuality of a pandemic that could (according to the Australian government's own expert assessment) last up to 6 or 9 months with up to 30-50 per cent absenteeism of the Australian workforce. The financial impact and stress this may have could well be exacerbated by the level of excessive personal debt and inadequate savings meaning that many consumers will not be able to sustain their loss of earnings.<sup>10</sup> If the free market operates with the normal price mechanisms, scarcity could lead to sudden inflationary pressures that will exacerbate inequities being faced by the neediest of consumers. We can give two recent examples of how a sudden shortage to lead to rapid inflation in relation to a food item. One example is the significant hike in banana prices as a result of Cyclone Larry in 2006.<sup>11</sup> Another example is the effect of a recent outbreak of suspected "blue ear disease" along with existing foot-and-mouth disease in pigs in China which forced the Chinese government to tap into its own stockpiles of pork due to significant pork price increases.<sup>12</sup> In the recent China example, the reports indicate that before the stockpile was utilised, a disease which affected 20 million pigs out of a population of 500 million (4%) led to price increases of up to 200%.<sup>13</sup>

In the context of price control issues, we note the following:

- Price control was introduced in the US during World War II to prevent a repeat of the spiralling food prices seen during World War I.
  - In the UK, food prices were prescribed by the Ministry of Food during World War II.
  - If price control were to be introduced, it would require subsidies to be introduced by government to ensure that further stocks can be acquired without retailers being forced to incur a loss. Price controls would be critical throughout the entire supply chain. Otherwise, the inflationary pressures would simply add to the cost of products for the retailers who might then end up in the unfortunate position of absorbing the increased costs without being permitted to pass on these costs to the consumers buying price-controlled products.
- (d) Federal government intervention will be needed to introduce and implement the orders or regulations for an enforceable distribution system. This is likely to require regulations that set priorities for particular foods to be supplied by private industry and, unless these are adequate food reserves in an available stockpile, to divert supplies from other existing contractual commitments (e.g. export contracts for rice or pasta). Prioritisation would be required to meet any domestic food shortfalls as well as meeting the needs of the neighbouring Pacific countries with which Australia shares a food supply for processed foods or which are reliant on Australia for private food supplies and/or government food aid.
- (e) Federal and State and local government intervention will be required to regulate changed opening hours or enforced closures and the likely need for logistical re-arrangement of the food supply at retail point of sale if an imminent emergency scenario becomes more likely.
- (f) Federal government (in co-ordination with the State health and welfare agencies and community and emergency organisations) will be required to maintain ongoing confidence by the population

beyond the communication strategies of private industry.

Government must also allow people to identify problems and provide a communication avenue that can address any consumer concerns that are vented by any individuals or community groups in the event of any food shortages and to address food supply system abuses. In addition, based on the precedent of World War II, there ought to be mechanisms to encourage members of the community to participate in monitoring abuses and defects in the system.

14. **Communication Strategies:** We believe that government and industry must develop a range of communication strategies for the following:

- To minimise and to counter the psychological concerns of any food shortage
- To advise how and where food will be available in an emergency
- To advise to whom and when food will be available
- To advise how to conserve food and avoid waste and how to maximise the utility of the essential foods
- To counter ignorance on methods of food preparation for the large population that does not usually prepare its own food in urban areas – such as food from basic ingredients that are included in the list of essential foods stockpile
- A range of other ongoing communication strategies.

15. **The need for a temporary shut-down:** We believe that it will be necessary to consider the timing for a temporary shut-down or moratorium of the operations of supermarkets in capital cities or at particular locations prior to the introduction of any new distribution systems for an emergency scenario:

- To allow the supermarkets to switch over from conventional selling systems to alternative systems of food distribution
- To counter the prospect of a panic buying rush (that could threaten the viability of a continued food supply for the short term) but to allow for the following things to occur so that

alternative distribution or rationing systems can operate effectively

- To give time for demounting existing shelving in order to facilitate a layout more suitable for efficient flow-through of foods in an emergency scenario so that food can be moved in and out efficiently with minimal handling and minimum time wasting. Fresh food which needs to be removed from the supermarket as a result of such proposed rearrangements should not be wasted and consideration ought to be given to distributing the fresh food to community and emergency relief organisations.
- To switch to a different shop configuration that minimises queuing and social contact to protect check-out staff
- To allow for the policing and securing of the retail-points-of-sale specifically, and protecting shop staff, and ensuring that food will not be readily stolen or looted.

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<sup>1</sup> Lee,H and Whang,S *Higher supply chain security with lower cost: Lessons from total quality management Quality in Supply Chain Management and Logistics* Edited by T.C.E. Cheng, K.-h. Lai and A.C.L. Yeung Volume 96, Issue 3, Pages 287-419 (18 June 2005).

<sup>2</sup> Harrison,T, Lee,H, Neale,J *The practice of supply chain management*, Springer,2003

<sup>3</sup> Ibid.

<sup>4</sup> Warwick McKibbin and Alexandra Sidorenko, *Global Macroeconomic Consequences of Pandemic Influenza*, Lowy Institute, 2006, in *The Age*, Saturday, 19<sup>th</sup> May 2007

<sup>5</sup> Federal Department of Innovation, Industry, Science and Research, *Business Continuity Guide for Australian Businesses*. Available online at:  
[http://www.industry.gov.au/Pandemic\\_Business\\_Continuity/Documents/BusinessContinuityGuideForAustralianBusinesses20060627130327.pdf](http://www.industry.gov.au/Pandemic_Business_Continuity/Documents/BusinessContinuityGuideForAustralianBusinesses20060627130327.pdf) (accessed 5 August 2008).

<sup>6</sup> Ibid, Chapter 1, page 2.

<sup>7</sup> Ibid, Foreword (i).

<sup>8</sup> Federal Department of Health and Ageing, *The Australian Health Management Plan for Pandemic Influenza*. Available online at:  
<http://www.health.gov.au/internet/main/publishing.nsf/Content/ohp-pandemic-ahmp-pi-toc.htm> (accessed 5 August 2008).

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<sup>9</sup> See Mark Rothstein et al, "Quarantine and Isolation: Lessons Learned from SARS" (Institute for Bioethics, Health Policy and Law, University of Louisville, November 2003). Available online at: <http://louisville.edu/bioethics/public-health/SARS.pdf/view> (accessed 5 August 2008)

<sup>10</sup> Refer to section 3.6 and footnotes 22 and 23 above.

<sup>11</sup> Price of bananas increased by 250% (Sydney Morning Herald 27/7/2006: <http://www.smh.com.au/news/national/economy-slips-on-banana-skin/2006/07/26/1153816251734.html%06> (Accessed 5 August 2008)) after Cyclone Larry wiped out over 90% of banana crops in Australia (Australian Banana Growers' Council: <http://www.abgc.org.au/pages/media/cyclonelarry.asp> (Accessed 5 August 2008))

<sup>12</sup> The Age 30/5/2007: <http://www.theage.com.au/news/business/pigs-ear-shakes-shoppers-in-china/2007/05/29/1180205250019.html> (Accessed 5 August 2008)

<sup>13</sup> Price increases from 9 Yuan per kilo to 28 Yuan per kilo have been reported. Ibid.