

About FCI



Silvia Estrada-Flores

PhD, GradCert(FoodBusMgt)

Silvia Estrada-Flores is Principal Consultant and founder of Food Chain Intelligence.

Silvia has strong technical and business qualifications with 17 years of experience in food supply chains, refrigeration, project management and strategic planning of innovation. She has proven ability to detect deficiencies and opportunities in supply chains and develop innovative solutions for enhancing competitiveness. Silvia has developed a sound understanding of commercial drivers for suppliers, manufacturers and consumers in Australia and shares this knowledge in conferences and workshops.

Silvia is an author of 6 book chapters and 80 articles, confidential reports and conference proceedings.

Qualifications:

- BSc (Food Eng), 1st class honours (UNAM, Mexico).
- PhD (Food Eng), Massey University, New Zealand.
- Graduate Certificate (Food Business Management), Monash University.

Editorial roles:

- Member of the Advisory Board of the *International Journal of Refrigeration* (Elsevier).
- Member of the Editorial Board of *Food and Bioprocess Technology* (Springer).
- Member of the Editorial Council of *Industria Alimentaria* (Alfa Editores, Mexico).

Memberships:

- International Institute of Refrigeration (IIR), Commission D2.
- Logistics Association of Australia (LAA).
- Council of Supply Chain Management Professionals.
- Australian Institute of Refrigeration, Air Conditioning and Heating (AIRAH).

Committees:

2009: International Scientific Committee of the IIR Conference "Sustainability and the Cold Chain".

2008: FAO/WHO Expert Group on Leafy Green Vegetables and Herbs.

2006: IIR sub commission on Certification, Testing and Quality of Transport Equipment.

2004 and 2005: Codex Committee on Food Import and Export Inspection and Certification Systems.

2005: Codex Committee on Fresh Fruit and Vegetables.

Our services

Customized competitive technical intelligence

FCI is actively involved in national and international scientific and industrial organisations. We are reviewers in renowned scientific journals and we meet with prominent researchers in food science, refrigeration engineering and supply chain technologies in international congresses and forums. Through these activities, we have unique insights on how research and innovation are transforming the food industry.

These insights are captured in reports that answer questions such as:

- How can disruptive and emerging technologies in the food supply chain affect your business?
- How can technological innovations help improving supply chain efficiencies?
- What is the level of technological activity of your competitors/ collaborators/ suppliers?
- What value addition can be achieved through innovation for you and your chain partners?
- How can you integrate innovation as a part of your business strategy?

Consultancy on cold chain operational aspects

We:

- Provide advice on optimum transport and storage conditions during distribution.
- Investigate cold chain damages in perishable products.
- Calculate freezing and chilling process parameters for sizing or selecting refrigeration equipment.
- Develop robust and scientifically-based validation plans for refrigerated equipment, which can be integrated as a part of your Quality Assurance Systems.

- Identify 'hot spots' in cold stores, refrigerated transport (trucks, containers, vans), freezers, chillers and other temperature-controlled equipment.
- Suggest potential solutions to problematic equipment or operations.

Advice on current regulations for the safe handling and distribution of perishables

Through our contact with regulatory agencies in Australia and overseas, we can:

- Provide advice on temperature limits required for the transport and distribution of foods in Australia and overseas.
- Provide advice on national standards (AS 4982-2003, AS3711.5-2000) and international standards (European ATP, US ARI Std 1110 2001, ISO 1496-2:1996) for refrigerated transport equipment.

Assessment of environmental footprints of food supply chains

A carbon footprint is the total amount of carbon dioxide (CO₂) and other greenhouse gases, emitted over the full life cycle of a process or product. It is normally expressed as the kilograms of CO₂ equivalents.

Carbon footprinting requires the use of life cycle analysis to assess the inputs (e.g. materials and energetic resources) and outputs (i.e. methane, nitrous oxide, kg CO₂ –e), from "cradle to grave". Therefore, carbon footprinting is closely linked to the mapping of supply chains. In partnership with other consultancy firms and research organizations, we can develop carbon footprints for perishable goods, including the impact of their supply chains.

Specialised Scientific Reports

Food Chain Intelligence delivers reports that combine:

- In-depth knowledge of food science and engineering concepts.
- A sound understanding of the social, technological, environmental, economic and political drivers of food supply chains.
- Scientific and industry recognition and credibility.
- Over 17 years of experience in editing and writing scientific and industry reports, submissions and articles.

Our services include:

- Coverage of national and international conferences.
- Reports on food supply-demand trends and the impact of technology and innovation.
- Writing and editing of scientific articles for journal publication.
- Writing and editing of industry articles for newsletters/magazines/e-zines/blogs.
- Validation protocols for cold chain operations.
- Refrigerated equipment documentation.
- Literature search and analysis.

Examples of past and current projects include:

- Development of Quantitative Risk Assessment models for detecting and managing pathways of microbial/chemical contamination in food supply chains.
- Evaluation of logistics costs, value chain and hurdles in the movement of fresh produce.
- Technology forecasting and evaluation of opportunities and barriers on the uptake of emerging technologies in the horticultural sector.
- Cost-benefit and value chain analyses on the establishment of bioactive industries from food waste.
- Market analyses and technology roadmaps for sustainable technologies in food chains. Technical advice to manufacturers of phase change materials for the handling of pharmaceutical and food products.

Our clients

Some organisations that have used our services are:

- [CEEBRON PTY LIMITED.](#)

- [GEL ICE COMPANY PTY LTD.](#)
- [CSIRO SUSTAINABLE ECOSYSTEMS.](#)
- [HORTICULTURE AUSTRALIA LTD.](#)
- [VICTORIAN ECO-INNOVATION LAB.](#)
- [ILLAWARRA INSTITUTE OF TAFE.](#)
- [THERMOVUEW.](#)

Our newsletter and blog

Food Chain Intelligence publishes 'Chain of Thought', a newsletter discussing relevant aspects of the food supply chain industry. Our readership base includes supply chain managers, climate change and sustainability managers, researchers, industry association representatives and managers from government departments, among others. Our readers are based in Australia and overseas.

'Chain of Events' is a blog with news and events of interest to the cold chain and food industry communities. This blog provides an overview of seminars, forums and conferences in areas such as groceries retailing, supply chain management, refrigeration and energy efficiency, sustainability in the food industry and manufacturing.



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