

# EXAMPLES OF PROJECTS - LISTED BY PROJECT TYPE

To protect client confidentiality, all business names have been removed.

## FACTORY BUILDING PROJECTS:

- **Shellfish plant:** - Gave advice on design of plant and process to allow BRC accreditation and expansion into cooked shellfish production and the wider markets.
- **Shellfish plants:** - Co-ordinated design and developed the architects brief plus scale drawings for businesses new build crab cooking and packing facilities.
- **Importer exporter:** - Assistance on design of High care facility for repacking cooked high risk food items.
- **Crab cooking plants:** - Provided process parameter, process layout and flow +equipment and approximate costs to business in ROI undertaking feasibility study on new factory.  
- Provided report on segregation/air flow/ condensation removal after salmonella incident..
- **Fish processor:** - Coordinated (as an employee) the design build and fit out of a complex 4000m<sup>2</sup> unit for primary process, smoking, cooking and value added production, plus integrated waste treatment plant and on site laboratory.
- **Fish processor:** - Provided advice and design brief for upgrades to plant (to allow for BRC certification of High risk products).
- **Fish/shellfish processor:** - Developed processing specs and an architect's brief with scale drawings for a scampi processor to build a 500m<sup>2</sup> fish curing, smoking and cooking plant.
- **Fish farmer-processor:** - Assisted Salmon processor in getting best flow, segregation and space utilisation possible from their factory extension.
- **Fish retail chain:** - Co-ordinated factory upgrade and Local Authority approval to distribute ready to eat fish (Plant design/layout/drawings, upgraded food safety systems).
- **Ready meal unit:** - Start up business – assisted with Plant design, drawings, services and fabric, equipment selection advice on processes and legal/food safety requirements.
- **Fish process plant** - Layout advice for new 15,000 m<sup>2</sup> process plant incorporating filleting, high risk (cooked ready to eat products) and high care(raw ready to eat).
- **Meat processor** - Provided advice drawings and operational procedures to segregate between risk areas in an on farm butchery and value added meat plant.

## PRODUCT AND PROCESS DEVELOPMENT OR IMPROVEMENT:

- **Pate manufacturer** - Developed a range of high quality ambient stable (heat/pressure sterilised) pates to help client export trade.
- **Confectioner** - Development of packaging – Compostable biodegradable pouches suitable for chocolate packing.
- **Meat Processor** - Developed simple methods to use up by product and create additional products requested by client customers.
- **Drinks processor** - Resolved a pectin gel (yield/quality) issue in a fruit infused spirit drink by the application of selected enzymes at the appropriate stages in the process.
- **Fishing business** - Developed a low salt citric fish marinade to enable a continued “fresh fish” supply over the monsoon, where fishing was impossible and freezers absent.
- **Fish smokers** - Introduced blast chill procedures to reduce the risks of spoilage and reduce potential for growth of pathogens from heat tolerant spore forming bacteria.
- **Fish curers** - Introduction of salt level controls and water activity level controls to improve flavour, texture, shelf life and reduce the risks from Clostridium botulinum.
- **Salmon/trout smokers** - For several businesses – introduced/tightened up on a series of steps that would reduce opportunities for Listeria to grow during shelf life
- **Prawn processor** - Introduced controlled sulphite dipping process to prevent melanotic blackening in Nephrops norvegicus.
- **Vegetable Dip business** - Set up a process and acidity control system (plus HACCP scheme) to prevent potential of Botulism poisoning in an existing smoked vegetable based dip.
- **Contract caterer** - Improved production processes on a chilled soup product – to improve quality and safety whilst increasing the recommended shelf life by another 60%..
- **Asian snack foods** - Improvement of processes to allow shelf life extensions and improved product safety – for expansion into retail market.
- **Salmon Smoker** - To improve quality and resilience to pathogen growth - Set workable production scheduling, consistent moisture extraction and air quality management.
- **Chilled soups** - Assisted start up business with NPD process in high quality long life chilled soup that could be processed in low care low cost packing environment.
- **Raw fish processor** - Provision of Technical advice to the Engineering + Technical Director + NPD team – developing and building facilities for cooked fish product range
- **Cooked crab processor** - Provision of Technical advice on cooking methods and equipment positioning following Salmonella scare on cooked product
- **Fruit Juice manufacturer** - Advice with regards to pasteurisation controls at juice bottling and appropriate measurement techniques.

## **SITE CLEANING/HYGEINE SYSTEMS:**

- **Food Smoker** - With persistent Listeria issues - produced action plans (housekeeping, segregation, cleaning method/schedule), introduced appropriate sanitisers.
- **Several clients** - Selected more suitable cleaning chemicals for the various applications, negotiated prices and introduced correct dosing and methods / schedules for operators.
- **Salmon Smoker** - Trained and developed a hygiene team, applied a “key performance indicator” bonus programme based on based on labour use, swab results, chemical and water use; installed a foam detergent and sanitiser application system to improve labour water and chemical usage – improve microbial reduction rate.
- **Many clients:** - Fish/dairy/meat/vegetable processors – suggested appropriate detergents and sanitisers for the water/soil/microbes, recommendations on training, Scheduling/recording and verification of cleaning

## **ACHIEVING TECHNICAL ACCEPTANCE OF PRODUCTS PROCESSES AND PREMISES:**

- **Ready meals business:** - Assisted in their in business tendering process. Support with plant layout, equipment selection, legislative requirements, operating systems and HACCP.
- **Vegetable Dip business:** - Set up a process and acidity controlling system to prevent potential Botulism poisoning in an existing smoked vegetable/oil/egg dip. Advised on HACCP.
- **Fish Cooker/Smokers** - Set up fish curing control systems plus blast cooling regimes to avoid Clostridium issues and reduce Listeria incidence/growth opportunities.
- **Fish processors** - Several cooked, raw and smoked fish and shellfish plants preparing for BRC certification – guidance and development of process and plant designs
- **Food and fish smokers:** - Resolved issues behind problematic Listeria contaminations including those involved in major scare and regained lost business following our work.
- **Scallop processor:** - Set up testing regimes for microbes and algal toxins, provided support/advice before during and after customer audits.  
- Improved Food safety management system and represented HACCP to take account of toxin hazard.
- **Meat/Game processors:** - Assisted in Export approvals. At another business trained a Technical Manager and together had the site accredited to achieve new supply contracts.
- **Salmon Smoker** - Guided business through supermarket preapproval after loss of contract due to Pathogen issue – improved raw material production process +staff mentoring.
- **Apple Juice manufacturer**- Advice with regards to hazards associated with mold on apples + how both acidity +pasteurisation controls relevant pathogenic bacteria.
- **Gin Distillery** - Advice with regards to HACCP and presentation sources on information on potential hazards

## **GAINING ACCREDITATIONS:**

### **Provided advice/training/mentoring/preparation for certification audits: retailer, foodservice, BRC, SALSA, Organic, Wild Venison, Marine sustainability:**

- Shellfish processing/cooking operations - White fish processors - Soup manufacturers - Pate producers
- Manufacturers of pies and meat puddings - Seafood/Kelp processor - Sausage/meat puddings - Drinks (water/soft drinks)
- Meat, Poultry and Game processors - Vegetable packer and curer - Dips and ambient/chilled - Preserves and pickles
- Fish and cheese smokers - Vegetable smoker-processor - Cheese manufacturer - Beer breweries

## **SUPPORT WITH EXPORT ISSUES:**

- **Ready to eat foods** - Argentina: Food safety issues, interpretation of regulations on ingredient lists, labelling, specification and export document presentation.
- Brazil: labelling, specification and export document presentation.
- EU (Belgium, Denmark, France, Greece): Assisted with issues on Clostridia, Listeria, HACCP and product release; labelling and product specifications.
- France: Assisted in resolution of Salmonella in cooked exported shellfish
- India, Jordan, Japan: Advice on Microbial issues and standards. Advice on viral, bacteria and chemical levels for new product export specifications.
- Switzerland: Negotiating with customers on the interpretation of regulations on Listeria monocytogenes levels in foods that do not support its growth.
- USA: HACCP and labelling – USFDA approvals.
- Dubai: specification and microbiological issues on ready to eat fish products.

## ENFORCEMENT AUTHORITY ISSUES:

- **Exports:** - See above, assisting clients resolve issues with the Government Authorities in USA, Jordan, Argentina, Switzerland, Belgium Denmark and France.
- **Export to Russia** - Assisted business dealing in fish by-product (defendant in court) with specialist witness report on EC plant approval and by-product relabeling.  
- Assisted another business with information on repacking label/trace requirements
- **UK trade:** - Many processors supported during resolution of EHO issues (hygiene, process control, training, HACCP, labelling), and averted legal action:
  - **Labelling issues** (several clients): Claims of misleading labels - Resolved with sets of site specific labelling rules and spec systems.
  - **Food safety issues** (several clients): Failure to control Clostridium botulinum in anaerobic products, resolved with systems of salt or water activity measurement, calibration, recording, training. Failure to control Listeria issues in fish, resolved with upgrades to systems, ventilation, segregation.
  - **Inadequate/absent HACCP scheme:** (drinks, meat, fish and bakery businesses): Organised training and helped set up compliant HACCP schemes.
  - **Inadequate documentation:** Set simple production and product safety recording systems to tie in HACCP and production, trained staff to operate.
  - **Disagreements with local authorities on aspects of Businesses HACCP** – act as a presenter of appropriate information and occasional negotiator.
- **Advice to Government:** - Advice given to Food Safety Authority researchers with regards to practical ways of controlling Listeria in Ready to eat product processing.  
- Support to Local authorities re practicalities of Botulinum control and salt levels in cooked smoked fish products.  
- Advice given to local authority on Phosphate usage in shellfish and whether or not an associated process step should be a CCP in HACCP.
- **Craft Bakeries** - Installation of simple minimal recording traceability systems for several very small bakers with 100s of products – in order to pass Local authority requirement.

## COST REDUCTIONS - YIELD IMPROVEMENT, QUANTITY AND GIVEAWAY CONTROL SYSTEMS:

- **Several clients** - Rationalised smoking and cooking regimes to retain flavour and appropriate pasteurisation levels but increase yield, at the same time introduced rapid chilling to avoid potential multiplication of pathogens from heat tolerant bacterial spores.
- **Meat Processor** - Developed simple methods to use up by product and create additional products demanded by client.
- **Fish processor** - Improved the utilisation of by product (trimmings) by developing the pate making process, resulting in higher factory yield and better overall prices.
- **Drinks processor** - Improved processing yields in a soft fruit sprit drink process via use of enzymes introduced at the appropriate stages in the preparation process.
- **High volume fish packer** - Introduced an average weight control system, with a payback of <4 months, saving approx 1-2% of selling price (2-3g per pack) and increasing packing productivity.
- **Confectioner** - Introduced a manual (low cost) average weight control system to reduce giveaway and increase packing speeds on high value small pack size products.

## MINIMISATION AND SIMPLIFICATION OF OPERATIONS/SYSTEMS , STAFF DEVELOPMENT AND FREEING UP MANAGEMENT TIME:

- **Shellfish processor** - A business struggling to survive and adapt to reduce staffing levels – helped to minimise systems to assist in their remaining both legal and solvent.
- **Fish and meat processor** - A client with an unmanageable range of processes. Helped rationalise range, gave guidance on low and high risk area segregation and critical food safety issues. Provided systems and guidance for HACCP and helped prepare client for their certification, EHO and retailer audits.
- **Several clients** - Setting up a staff development plan and training staff to take on tasks previously carried out by more senior staff.
- **Many clients** - Management of Technical issues on a contract basis – site visits and support set at the appropriate level, taking pressure off management/owners.
- **Fish smoker** - A site with ineffective time consuming HACCPs: retrained a team, developed a simpler, maintainable and sound HACCP – and gained credibility with its detractors.
- **Food smoker** - Complete redevelopment of Food safety management system HACCP, trained staff to operate it - streamlined paper flow with reduced complexity/resource use.
- **Game processor** - Replaced and simplified a food quality/safety management system at same time recruited and trained a Technical manager to maintain quality and safety systems.
- **Start up soup business** - By steering NPD development of chilled long life soup to a “cook in pot” process – saved having to build a high care facility thus reduced processing and future business complexity.

## **LABELLING AND LEGISLATION:**

- **UK markets** - Many of our small business clients (fish, shellfish , meat and game, bakeries) have benefitted from our “basics of labelling – a document we create giving current labelling rules to the range of products sold. For fish/shellfish – this includes the recent 2013 fish labelling changes and 2014 Food information to consumers regulations. As of April 2014 we drafting similar documents for other food types.
- **Export markets** - Our networks of specialist have helped us to help clients meet regulations in for example: USA, Japan, Jordan, Brazil, Argentina, Australia India.

## **BESPOKE STAFF TRAINING:**

- **Game processor** - Trained a QA/Technical manager to take full ownership of quality and food safety management and site accreditation.  
- Introduced Pest control training, set up so that client could operate their own Pest management system.
- **Several clients** - Provision of “Technical management training programmes” for those about to take on the role in small to medium businesses.  
- Setting up staff development plans and training staff to take on tasks previously carried out by more senior staff.  
- Developed short courses designed around the needs of each business : Plant Food Hygiene and operating standards, Theory and practice of Cleaning, Factory traceability, Product labelling, Internal auditing, water activity testing, sampling procedures.  
- CCP training
- **Salmon smoker** - Developed a series of interactive courses and briefings around “Producing good/safe smoked salmon: Controls on Listeria and Clostridia, raw materials, process scheduling, curing smoking, cooling, effective water activity sampling , corrective action and a dedicated HACCP course.
- **Many clients** - Provided bespoke and nationally certificated HACCP training to level 1 and 3: HACCP courses for processors of meat, fish, shellfish, milk, cheese, Grains, vegetables Packers, Pie makers, bakers, Breads, Cakes/confectionary, Fish and meat Smokers and cookers, Aquaculture, Pates, Cereals, Fruit juice, Water bottlers, Distillers, Spirit bottling, Hostels, Hospital central catering, Care homes.
- **Farm development** - Developing training and mentoring modules (processing and food safety ) for small scale processed food production on farm.

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