

REVIEW OF RELU WORK SHADOW SCHEME 2006

The RELU Work Shadowing Scheme was launched at the end of 2005. It aims to introduce RELU research staff to the action-contexts in which their research may be used. These contexts may be commercial organisations, voluntary bodies or public agencies. The first round of the scheme, involving 9 work shadows, was made available to large research projects funded under RELU's first call for proposals¹.

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The Shadowing Scheme is to be complemented in 2007 by the **RELU Visiting Fellowship Scheme** which will enable policy makers and practitioners from the commercial, voluntary or public sector to spend between one week and a month visiting RELU research teams with a view to exploring the implications of the research for their work and to raising awareness of their interests among the researchers. This could be return visits by practitioners who hosted a researcher under Work Shadowing or an altogether new collaboration. A particular focus will be around development of bespoke dissemination activities and materials.

¹ Responsibility for initiation of a work shadow rests with a project Principal Investigator (PI) who must approach their preferred host to negotiate/explore access. A single page application is required, supported in writing by the PI and the host organisation senior staff member, specifying the length and location of the placement and describing briefly what the researcher would be doing and the anticipated benefits to the researcher and the host organisation. A senior staff member of the host organisation must agree to be responsible for overseeing the placement. The application is sent to the Director's Office for approval. At the end of the placement, the researcher and the host each submit a one page statement evaluating the experience and providing feedback. The RELU Programme covers eligible travel and subsistence costs to a maximum of £500 per week and £2000 in total per placement. The shadows are expected to last between one week and a month.

1. KATHLEEN GRADY

**HOST: The Stag Inn, Rackenford, Tiverton
September-October 2006**

Kathleen Grady, Research Associate for the Stirling University RELU project, participated in the RELU work shadow scheme from mid September until mid October 2006. To complement the on-going research into production methods and markets for the fish tilapia in the UK, Kathleen was interested in observing how restaurants make decisions with regards to sourcing food and menu creation while gauging the reactions of chef, management and customers to a menu option of tilapia.

Kathleen initially shadowed pub/restaurant proprietor and head chef Mark O'Donnell at the Stag Inn, Rackenford, Devon. The Stag Inn is a traditional, old-style pub, with an adjoining restaurant, serving hearty traditional meals alongside modern dishes. The emphasis on home made meals using fresh, high quality ingredients sourced locally places it in the gastro-pub league, with prices to match. Mark has recently opened another pub/restaurant, in the nearby town of Tiverton, where again he has created an eatery that offers something different from the local competition, featuring a selection of home made, low calorie menu options.

After shadowing Mark for a few days, gaining insights to his restaurants' ethos, atmosphere and food purchase decision making, fresh whole tilapia was sourced from our commercial partner in Devon, for Mark and his assistant chef to prepare and have as a menu option at The Stag Inn. Mark decided on the method of preparation, recipe, and price; demonstrating how he wanted the tilapia to be filleted and prepared to his assistant chef. Kathleen observed this decision making process, noting the reactions and opinions towards tilapia with regards to quality, texture, ease of preparation and comparison with other fish. Customer response was also explored, through informal and semi-structured interviews lasting approximately five minutes. Feedback was only sought from those who tried tilapia, at the end of their meal, to keep the dining experience as natural as possible. Some of the customers who did not choose tilapia for their meal, did however enquire about it and even engaged in some further discussion, adding to the range of responses and reactions to tilapia.

Tilapia was advertised as a special on the menu and proved to be a popular choice. Mark was also keen to try an alternative recipe, which allowed Kathleen to compare differences in customer reaction to alternative preparations. The initial recipe used large 600g tilapia which were then filleted and pan fried in a lemon butter sauce and served with marrow. The second recipe used smaller 350g fish which were baked and served as a whole fish. At the end of the work shadow, Mark commented that he would be keen to feature tilapia on his menus again, most likely as a special. Mark thought tilapia would be most appropriate as a fish of the month or fish of the week at monthly/quarterly intervals.

This work shadow enabled Kathleen to learn about the challenges faced by small restaurateurs who are offering local, high quality produce to their customers. Shadowing Mark gave Kathleen the opportunity to explore how Mark perceives and creates the ambience of the Stag Inn while gaining first hand experience of the decisions that must be made and issues that arise when sourcing, creating and adding new products to the menu.

Host Report: Mark O'Donnell, The Stag Inn, Rackenford, Devon

Kathleen Grady from the University of Stirling arrived in Devon mid September 2006 to carry out a work shadow and product placement with the fish tilapia at The Stag Inn, Rackenford in Devon.

Kathleen shadowed Mark O'Donnell, proprietor and head chef at the Stag Inn, to observe how decisions were made with regards to sourcing food, menu creation and food preparation. Fresh whole tilapia was then supplied locally from Fresh Water Fish Farms Ltd as a menu option so Kathleen could observe how the fish was prepared and presented on the menu to customers at The Stag Inn.

Two different recipes were decided upon using different sizes of fish. Initially 600g tilapia were filleted and pan fried with a lemon butter sauce, followed by 300g tilapia which were baked and served as a whole fish. Kathleen observed the preparation and recipe decision making process then interviewed customers who chose tilapia for their meal.

This work shadow placement enabled the Stag Inn to experiment with tilapia on the menu, providing some insight into customer preferences, reactions to this species and feedback on their dining experience.

Tilapia was a fairly popular choice, mainly out of curiosity, and those who tried it enjoyed it, commenting on the fish as well as the overall recipe. Tilapia has potential as a menu option at the Stag Inn, however, rather than featuring permanently on the menu, tilapia would be more appropriate as an occasional option, such as 'fish of the month' or 'fish of the week' at certain periods throughout the year.

2. WYN GRANT

**HOST: Pesticides Safety Directorate (Approvals Branch), York
February, March and November 2006**

It was agreed with PSD that the most useful form of work shadowing would take the form of attendance at meetings relating to the concerns of the research with biopesticides. As the new Biopesticides Scheme is still gaining momentum, these meetings are still relatively infrequent. The meetings attended were:

- Exploratory pre-submission meeting with AgraQuest Inc.
- Meeting of the joint PSD/IBMA Efficacy Committee
- Pre-submission meeting with Bionext Sprl
- Attendance at a closed meeting of the Advisory Committee on Pesticides. This was the first time that an outside observer has been allowed to attend a closed meeting of the ACP.

PSD welcomed the opportunity for a constructive dialogue on their procedures and I am grateful to PSD for facilitating my attendance.

I was able to gain a much better understanding of the use of pre-submission meetings as part of the PSD's work and the challenges that these meetings present when dealing with relatively small companies who often have an imperfect understanding of the requirements of the registration process. For PSD, the meeting should hopefully result in more complete dossiers that take less time and hence cost less to process, thus offsetting the staff time involved in pre-submission meetings. The meeting on efficacy allowed the observation of the PSD's effective

working relationship with IBMA, as well as contributing to substantive understanding of this important issue area.

Quite properly, it was necessary to sign a confidentiality agreement and one company asked to see this agreement, but this was not in any way a significant constraint on the work shadowing experience. I did not have previous experience of observation techniques and sometimes found that it is quite difficult to remain silent on topics where one thinks that one has relevant knowledge. One also has to be careful not to use non-verbal cues, although this cannot be avoided altogether.

Host Report: Richard Davis, Approvals Group Director, Pesticides Safety Directorate

The work shadowing scheme followed an initial visit by Wyn Grant to PSD as part of the RELU funded project on the science and regulation of biopesticides. To build on this first meeting it was felt that the most useful approach would be to demonstrate how the biopesticides scheme worked in practice. This would be gained by attending specific meetings that would illustrate regulatory issues faced both by PSD and companies.

Pre-submission meetings gave an opportunity to see the types of enquiries coming in from companies and the support required. The company meetings vary enormously from those at a very early stage in development to those looking to submit an application soon. It can also illustrate the different levels of awareness of the regulatory process. It is the intention through the biopesticides scheme to support companies at an earliest stage possible in product development. This assists in generating appropriate data to support their application. PSD can also identify areas where reasoned cases/public domain data may be relevant, reducing the need to generate data with consequent cost savings. The scheme also sets out specifically to provide companies with contacts within PSD so they may have more confidence in approaching us.

An IBMA/Efficacy working group meeting illustrated another route by which PSD engages with interested parties in this area. Efficacy requirements in particular had been seen as being onerous and not appropriate to the mode of action of biological products. Some of these perceptions had come out of factually incorrect comments made by industry in the public domain. The group was specifically set up to provide information on what the requirements are, how they may be addressed, and develop further relevant guidance.

Attendance at one of the closed meetings of the independent Advisory Committee on Pesticides allowed Professor Grant to observe the completed evaluation of a biological product, based on using relevant OECD guidance. The purpose was to illustrate the end of the evaluation process, how the guidance document was used, and gain a feel for the issues raised by the independent experts and other government departments.

PSD has made significant efforts in recent years to understand better the challenges faced by biological companies, and provide regulatory support and solutions to some of these issues where possible. This lessons learnt from a pilot project have been fed into the now established biopesticides scheme. The success of this scheme can be measured by the additional new products approved or going through the system, and the number of meetings now being held with parties from this sector.

The benefit to PSD of this secondment is to provide a greater understanding of our activities in this area. This can then feed into the project in a positive way and can inform any

recommendations and outcomes. The latter will be of particular interest as PSD will continue to review the biopesticides scheme and look to improve upon it where possible.

3. CHRIS HODGSON AND DAVID OLIVER
HOST: Water Quality Division, Defra, London
June 2006

This report provides a summary of our work-shadowing experience within the water quality division at Defra, London. The secondment was of one week duration. We report on the usefulness of the scheme in terms of training provision but also with respect to the knowledge sharing experience. Additionally, we provide a brief account of the series of one-to-one meetings that we attended with the divisional manager and associated team leaders.

The period at Defra proved to be an invaluable experience. The opportunity to nest within the water quality division allowed us to engage with various key staff and facilitate knowledge exchange and sharing through a series one-to-one and many-to-one discussions. As researchers we were exposed to the workings of policy implementation for the first time and were able to gauge considerable differences with regard to how policy negotiators and researchers view research project data. The scientific framework with which we design and conduct experiments became less important when decisions regarding new policy were to be made. Instead, we learned that Defra are more focussed on the end-result of research - the specific answer to a specific research question. The underlying science, techniques, complexities and difficulties are effectively left behind. This was incredibly insightful.

We undertook a range of activities during the week placement. In addition to the series of meetings with key staff we were also able to attend a Defra review of sewage sludge research and also a steering group meeting of the Nutrient Management Unit (NMU). This provided us with a basic understanding of the diversity of issues dealt with within the Water Quality Division. Both of these meetings were very different but equally as useful. The Defra review provided opportunity to observe past Defra funded research, some of which directly related to our current project with respect to microbiological data, thus allowing us to extract relevant information. In contrast, the NMU steering group meeting enabled us to observe the various interactions and conflicting views of stakeholder groups relating to nutrient management issues.

We held a series of one-to-one meetings with the eight team leaders within the Water Quality division plus a range of meetings with members of the Catchment Sensitive Farming team. We were able to learn about their specific roles within the Water Quality Division, their relationships with the Environment Agency and other bodies. In return we were able to inform the teams of our research and its linkages with the Bathing Water Directive, the Water Framework Directive and catchment sensitive farming issues. These discussions were particularly fruitful, providing us with further avenues to explore for the continuation of the RELU project.

One final task relating to the work shadowing period was linked to a Defra funded review of a series of diffuse pollution projects in a summary document. We evaluated the mitigation methods adopted within each project with the aim being to identify apparent research gaps that could potentially be addressed in future research.

In summary, our work shadowing secondment period to Defra provided both of us with an important training opportunity which we both valued. We were exposed to a host of opportunities during the week. The placement fulfilled our expectation that it would provide:

- An insight into policy implementation
- A greater understanding of how research informs policy decisions
- An opportunity to witness, first hand, a government run department
- An opportunity to assess a potential future career move into policy
- A networking opportunity with Defra staff
- A platform to provide exposure for our current RELU funded project
- Potential to identify future research gaps

Host report: Russell Todd, WQ6, CSF Policy Team, Water Quality Division, Defra, London

Chris and David spent one week in Water Quality Division work shadowing but also reviewing a number of diffuse pollution projects for the Catchment Sensitive Farming Team and Head of Science for the Water Quality Division.

The series of one-to-one meetings were useful to the Branch Heads and Chris and David. Both sides were able to comprehend the others interests and explain in detail what they were doing. Joe Bonsall (Head of Bathing Waters Team) and Patrice Mongelard (Head of Catchment Sensitive Farming Delivery Team) were particularly interested in Chris's and David's work on Faecal Indicator Organisms (FIOs). Patrice has been promoting it at other relevant meetings.

Building on the one-to-ones and as Chris and David were located with Catchment Sensitive Farming Policy Team we were able to discuss both sides work further. If more time was available it would have been good to have replicated this with Joe's and Patrice's Teams.

Two meetings that were attended were somewhat different in composition and outlook. The Sewage Sludge Meeting was a scientific/policy review, which Chris and David would probably be more familiar with, while the Nutrient Management Unit meeting was more about policy issues and involved discussions on policy solutions.

The Review work that Chris and David were able to do was very helpful. Unfortunately as they only had a week we were not able to finish this work off and discuss further as both sides would have preferred.

We found the experience very useful. It is rare for policy officials to have scientists on their doorstep to discuss things with and get some flows going on various issues. It was clearly appropriate that Chris's and David's work had a read across with the CSF Team's work as this gave a clear starting point for discussions and understanding of one another's work and objectives.

Timings, length and appropriate team placement of a visit need to be considered fully to get the full benefit of work shadowing.

4. ALEXANDRA LOBB

HOST: Food Standards Agency, London

June, 2006

Dr Lobb spent one week at the Foods Standards Agency, London under the supervision of Dr Xavier Irz (an economist) with the aim to transfer knowledge and ideas about issues which are relevant both to the RELU project and the FSA's broader objectives.

Due to the shorter than expected time spent at the FSA (a result of work commitments for Dr Lobb & Dr Irz), the work shadow was centred on four key areas:

- A meeting with the FSA's economics group to communicate the objectives and findings of the RELU project to date and the direction of future research;
- A meeting with a Senior FSA Nutritionist, Dr Louis Levy, to discuss issues concerning the FSA's policy guidelines with respect to nutritional intake for the lower socio-economic groups in society, specifically with reference to the 5 a day fruit and vegetable campaign. Discussions also focused on barriers to consumption of fruit and vegetables and issues surrounding intervention campaigns with specific reference to children;
- An investigation of literature surrounding economic psychology and informed choice. The relevance of these types of studies to the choices made by children and young adults regarding food, diet and health are of key concern to both the project and the FSA. Dr Lobb & Dr Irz propose to collaborate further in examining cross-disciplinary measures for investigating behaviour relating to choice and change.
- A meeting between Dr Irz and research team leaders concluded the week, discussing the benefits of knowledge transfer.

The time spent the FSA helped to develop focus group protocols and questionnaire design investigating consumers' perceptions of healthy eating with attention on impediments to behavioural change. Speaking with Dr Louis Levy has also provided ideas for the intervention study to be conducted in 2007, in line with FSA policy.

Host Report: Xavier Irz, Food Standards Agency

Dr Alexandra Lobb visited the Food Standards Agency in June 2006 as part of the RELU work shadow scheme. The objectives of her visit were to:

- Exchange ideas of common interest to the FSA and the RELU project.
- Explore the possibility of carrying out some work in a selected area where integration and collaboration may be particularly useful.

The first objective was achieved through a number of meetings and related discussions with the Economics Branch. In particular, Dr Lobb met with Dr Louis Levy, Head of Nutrition Policy and Advice, together with Chris Byant and Xavier Irz, the Economic Advisers of the Agency. The meeting addressed the position of the Agency with respect to a variety of policy issues relevant to the RELU project in the area of nutritional health. In particular, the views of the Agency on the functional foods researched by the Reading team as part of the RELU project were discussed at length. Dr Lobb also attended the Economics Branch weekly meeting, which gave her some insights into the type of economic analysis which is routinely carried out by the Agency. Altogether, Dr Lobb gathered a lot of information about the objectives, methods, and positions of the Agency that may help reinforce the policy relevance of the RELU research in which she is involved. Meanwhile, the FSA gained some

understanding of the food-related research being carried out within RELU and is looking forward to the publication of the results.

As a first step towards achieving the second objective, several areas of potential collaboration between Dr Lobb and the Agency's Economics Branch were explored. In particular, Alex Lobb and Xavier Irz discussed the possibility of applying the methods and insights of Behavioural Economics to the analysis of food choices, and this work is on-going.

It is important for the FSA to maintain contacts with academics in order to stay in touch with the latest research and Dr Lobb's visit was, from that point of view, very useful. It is also hoped that the information that she gathered about the Agency and the wider UK government will have helped in carrying out subsequent research on consumers' perception of healthy eating.

5. PRADEEP MALAKAR

HOST: Health Protection Agency, Colindale, London

September 2006

A RELU work shadowing placement at the Centre for Infections, Health Protection Agency (HPA), Colindale, London, was initially intended to be for a period of five days. However due to circumstances of increased workload for the staff at the HPA, this period was limited to two days during September 2006. Prof G. K. Adak, at the HPA arranged for Dr Pradeep Malakar from the Institute of Food Research (IFR) to shadow with Dr Iain Gillespie. Dr Gillespie is a senior scientist in the Environmental and Enteric Diseases Department of the Centre for Infections. His research interests include the epidemiology of bacterial gastrointestinal and food borne pathogens and his daily activities include the administration and maintenance of several public data resources. During the shadow the variety of activity at HPA was clearly apparent.

A significant objective of the shadowing process was for Dr Malakar to gather information concerning the nature and upkeep of the UK national infectious intestinal disease database relating to outbreaks (GSURV). This resource is crucial to novel analyses linking food sources with food borne illness. This research is commensurate with work in the RELU-RISK project. Discussions with Dr Gillespie were particularly valuable and included an introduction to the surveillance process of food borne disease in the community as well as how information is recorded in national databases. The shadowing process highlighted the extensive efforts that support national surveillance schemes.

During the shadow it was possible to obtain a picture of the database structure, its administration and some possible uses. This information could not be obtained, easily, from other published sources. Dr. Gillespie was able to provide expert insights into the food classifications, the outbreak investigations and the ascertainment procedures that complemented descriptions of the complete data structures.

Another national data source, the National Diet and Nutrition survey, is jointly managed by the Food Safety Authority and the department of Health. The shadow has helped clarify possible combinations of these two databases for use in assessment of the risks of food borne illness. These two databases will be the main focus of a BBSRC responsive mode research proposal concerning the attribution of disease to food which will be submitted, from IFR, in the near future.

This shadow has provided improved familiarity with the national database system for food borne ill health and may therefore benefit future research. The insights provided by Dr. Gillespie during the shadow proved particularly helpful for the framing of future research questions. This shadow has been very useful and has highlighted the intensity of the effort and the professionalism that supports the national database systems.

Host Report: Dr G. K. Adak, Dr. I. Gillespie, Health Protection Agency, Gastrointestinal Diseases Division, PHLS Communicable Disease Surveillance Centre, London

The Centre for Infections, Health Protection Agency (HPA), Colindale, London, arranged for a visit from Dr Pradeep Malakar, who is based at IFR Norwich, as part of the RELU work shadowing scheme. The HPA was unable to accommodate Dr Malakar for a week, as was initially agreed, due to staff shortages and heavy workload at the agency. Dr Malakar met with Dr Iain Gillespie, a senior scientist in the Environmental and Enteric Diseases Department of the Centre for Infections, for an introduction to the surveillance system and to discuss options for including datasets within future research projects.

During the visit, Dr Malakar was shown the methodology of case ascertainment for food borne disease in the UK. Dr Gillespie also familiarized Dr Malakar on the surveillance aspects of food borne illness in the UK and how this data was captured in a national database. This national surveillance database for general outbreaks of infectious disease (GSURV) forms the basis for information on trends of food borne illness in the UK. The data base is a public resource but is very difficult to interpret without expert guidance. Discussions with Dr Malakar indicate that the IFR and the HPA share interests in trying to optimise the use of national data and, in particular, would like to rationalize the description of food types used in the HPA food borne illness outbreak investigation. Linking this information to the food types used in determining food consumption patterns in the population emerged as a valuable consideration.

This rationalization of food types may contribute to improved mathematical descriptions for the role of food in relation to illness in the community. Food attribution can be an important public health goal and may contribute to communications that inform the public about risks of certain foods. The shadow has provided an additional means for communications between the HPA and the IFR and has helped identify possible areas for future research.

The HPA has found this visit to be useful and hope that further collaboration with the IFR will be possible in the near future.

6. MATTHEW ORDIDGE

**HOST: Farm Advisory Services Team Ltd
May and September 2006**

Our study is based around replicating commercial protected soft fruit production, as a standard by which to judge the effects of novel plastic films. The need to produce crops of a commercial standard using current methods is key to the future uptake of any results by the relevant industry members but is an unusual approach in a university research setting. It was therefore decided to spend time work shadowing a member of the Farm Advisory Services Team (FAST Ltd.); firstly to identify any developments in the set up of commercial growing sites and apply these to the experimental design; secondly to identify any new developments in production, including picking standards and practices.

The work shadowing took place on two days and involved a day early in the season shadowing a member of the Farm Advisory Services Team on a 'crop walk' of a number of sites belonging to Edward Vinson Ltd. The second day was spent again at Edward Vinson Ltd. during the main production period where time was spent with supervisors overseeing the picking of both the strawberry and raspberry crop.

The first visit highlighted the management involved in producing a crop over a six-month period and demonstrated the different growing practices which this entails. This is important to the project as the methods involved in our research will be more directly comparable to some of these practices than others and it is important that we are aware of the variety of treatments which plants encounter in a commercial environment, so that we can allow for this in the interpretation of the relevance of our findings. The visit also aided in the understanding of the management of pests and diseases, which is an important part of the management of the crop during our study. It was also valuable to see the scale of production involved on a commercial site.

The second visit allowed a number of questions fundamental to the design of our experiments and the interpretation of our results to be addressed. It was invaluable to see the fruit being picked in a commercial environment and according to the specifications laid out by the multiple retailers. This specifically included identifying the range of colour and visual ripeness of commercially picked crops and understanding the practices involved in the field picking and handling of both strawberries and raspberries.

Together the two visits have highlighted a number of key issues, which we wish to address in the interpretation of our current results and the design of our future experiments. The experience was therefore both valuable for the PDRA involved and the project as a whole.

Host Report, Farm Advisory Services Team Ltd

The aim of the work shadow was to observe standard commercial practice in order to make the design of experiments for the research as realistic as possible. The intention was to cover the commercial growing of soft fruit, the associated pest and disease problems and the practicalities of harvesting the fruit to a commercial standard.

The farm chosen was Edward Vinson Ltd which is a large commercial soft fruit farm based in the Faversham area. For the first work shadowing visit Matt accompanied me on a typical crop monitoring visit to the farm. The farm receives regular crop monitoring on a fortnightly basis as part of their integrated crop monitoring strategy to help with general husbandry issues as well as any specific pest or disease problems which may be an issue. This involved walking each individual field assessing any pest or disease problems. Once the crop walking was completed a report was written for the grower including specific cultural/biological/chemical control recommendations.

During the second visit Matt was left on the same farm to shadow a supervisor responsible for the harvesting of both autumn fruiting strawberries and raspberries. The supervisor is the first point of quality control for the fruit as far as colour, shape, size and any rots/damage is concerned before the fruit is taken to the packhouse and Matt was able to observe fruit being picked to a commercial standard for the supermarket.

Hopefully the two visits gave Matt the opportunity to see fruit being grown/harvested to a commercial standard in the field, allowing him to apply some aspects to the experimental setting in the University.

7. SCOTT REYNOLDS

HOST: Mr Pete Neusinger, Fresh Water Fish Farms Ltd, Butterleigh, Devon

February - April 2006

Scott Reynolds participated in the RELU project work shadow scheme between February and April 2006. Scott undertook growth trials with our commercial partner, Fresh Water Fish Farms, in Devon as part of our research into production methods and markets for the fish tilapia in the UK.

A novel tilapia production system (AST – Activated Suspension Technology) was constructed and compared with the more conventional recirculation system (RAS – Recirculating Aquaculture Systems) which is currently utilised by Fresh Water Fish Farms Ltd for commercial tilapia production. Growth rates of Nile tilapia were recorded for both systems to test the viability of commercial production of tilapia in the UK using AST systems. The fish were fed and monitored daily, with records made of water quality parameters such as dissolved oxygen, pH levels, ammonia, nitrate and nitrite levels. Once the placement was over, the AST systems were kept running by the farms owner Pete Neusinger to monitor the fish over a longer term and maintain a sample of the AST reared fish.

In an attempt to improve the performance of the AST system an efficient waste removal system was designed to help filter and redistribute suspended solids, that would have been removed in the conventional recirculation system.

While the two technical systems were compared in terms of fish growth and performance, a review of the overall tilapia operation at Fresh Water Fish Farms was also undertaken, including an economic evaluation of the running and set-up costs, for both systems.

This work-shadow research contributes to the development of an effective AST system alongside the assessment of whether such a system can be commercially viable in the UK.

The review of the RAS system and current operations at Fresh Water Fish Farms Ltd, contributes to our RELU project cost comparison and sustainability impact assessment between different methods of tilapia production, specifically RAS and the development of AST.

The placement also provided Scott with practical experience working on a fish farm and developing new aquaculture technology.

Host Report: Pete Neusinger, Fresh Water Fish Farms Ltd, Butterleigh, Devon

Fresh Water Fish Farms Ltd undertook a work shadow scheme with Scott Reynolds from the University of Stirling, as part of the tilapia RELU research project. Scott shadowed farm owner Pete Neusinger and foreman Mark Yeowman, gaining experience on how to operate a warm water fish farm, while undertaking growth trials with Nile tilapia.

An innovative system for tilapia production (AST) was built and compared with the recirculation system (RAS) which is currently used for commercial tilapia production at

Pete's farm in Devon. The growth rates of Nile tilapia were recorded for both systems to test the viability of commercial production of tilapia in the UK using AST systems. The fish were fed and monitored daily, with records made of water quality parameters. Once the placement was over, the AST systems were kept running by Pete and Mark to monitor the fish over a longer term and maintain a sample of the AST tilapia.

In an attempt to improve the model AST system an efficient waste removal system was designed to help filter and redistribute suspended solids, that would have been removed in the conventional recirculation system.

This work shadow placement gave Fresh Water Fish Farms Ltd, the opportunity to experiment with alternative production methods for tilapia that could result in lower overall costs of production and a more environmentally friendly product.

8. MONICA TRUNINGER

HOST: East Anglia Food Link/Food Links UK

July 2006

I spent a week with East Anglia Food Link/Food Links UK in July 2006. East Anglia Food Link (EAFL) is a regional NGO that has been working in the last decade in promoting and supporting sustainability in food systems in the UK, looking at both private businesses and public procurement. This organization has to work with a different range of actors in the sector, namely other NGOs, public and private commercial organizations, and representatives of local, regional and national authorities. EAFL had an important leading role in the set up of a national organization – Food Links UK (FLUK) - that aims at making links with several other regional and local associations that promote local food initiatives that foster a sustainable food system. The activities I was invited to take part during the week I spent in East Anglia with these two organizations illustrated the broad range of issues and tasks carried out by these NGOs.

It was a very different week from my usual weeks at the office sifting through email, analysing data or writing reports and papers. Tully Wakeman (co-ordinator of EAFL) did everything he could to provide a disparate and diverse week of events in order to show me with acute detail what both EAFL and FLUK do. Thus, from Monday to Friday I accompanied Tully in several meetings with different aims and actors. The meetings took place in several settings:

- Discussing school meals with a catering manager based in Essex over lunch in the house of another member of EAFL;
- Raising the profile of local and regional food within the national policy agenda and communicate the view of FLUK regarding the institutional structure to deliver social and environmental sustainability (the meeting took place in the House of Lords with Baroness Sue Miller).
- Meeting with the Food Policy Officer of the London Development Agency where potential links between the site of production (foods from East of England) and the site of consumption (London) were discussed.
- Facilitating business links between Greenvale (a large potato company) and a buyer from the NHS Purchasing and Supply Agency. The meeting took place in the board room of the company and at lunch time we had the opportunity to taste a range of fresh mash potato products to be supplied by the company to the hospitals in the area.
- Discussing with party leaders in Norwich city council several issues such as climate change, alternative energy and the Peak Oil in order to find potential ways to make the

council more active in this area and to be eventually established as a role model to be followed by other councils within the UK.

- Meeting in EAFL about one of their projects which consists in setting up a Certificate of Provenance for sustainable local food.
- Buffet lunch to celebrate the launch of a new magazine 'Season' where I had the privilege to taste local wine and foods.

The meetings provided a good insight of the activities and issues that this type of organisation is involved with and along the way I had the chance to meet different people working in disparate settings (different from a university/academic context) and indulging in the pleasures of tasting local foods and drinks!

I also had the opportunity to talk to Tully about the national and regional institutional framework to promote and support local food initiatives which helped me to clarify some doubts I had. It also inspired and helped me to think about new questions/issues that I need to cover in the ongoing fieldwork incursions in Anglesey, Herefordshire and Lincolnshire. It was also important to make Tully aware of the local food activities that are happening in the above-mentioned regions and create or strengthen potential links with people promoting local food in those areas.

So, overall a great experience, which I truly recommend to anybody conducting research. It is a very good way to understand what practitioners do and foster closer links between the academic/research context and the policy, economic and voluntary sectors.

Host Report: Tully Wakeman, Co-ordinator, East Anglia Food Link

East Anglia Food Link (www.eafl.org.uk) is an NGO working to create more sustainable food systems. Monica Truninger spent a week with us in July 2006. It was an interesting week with an unusually varied range of meetings. These included examples of our bread-and-butter work of facilitating food businesses to create more sustainable supply chains, but also more political lobbying work.

On Monday Monica arrived and we spent some time discussing plans for the week ahead. Monica joined in our communal office lunch and read some background papers, before I showed her to the B&B where she was staying.

On Tuesday we attended a meeting at a colleague's house in Essex. The colleague, William Hudson, is a member of the EAFL team who specialises in fruit and vegetable supply chains, and we were able to catch up on a few relevant projects before the meeting proper. William's wife Sue works for Essex County Council helping schools to improve their school meals. The meeting was with Jason Walmseley, the catering manager of a cluster of Essex schools, and the meeting was to discuss how to get more local and sustainable food into Essex schools. We identified a new possible mechanism, via the regional Co-operative Society, which we have continued to develop subsequently. Jason was subsequently appointed head of a team of catering experts who will provide hands-on support to Essex schools, and through that position he will work to introduce more sustainable food to as many schools as possible.

On Wednesday Monica and I travelled by train to London. The train journeys provided more opportunity to talk around the practicalities of local food systems. Our first meeting was at the House of Lords with Baroness Sue Miller, and was in my capacity as Chair of Food Links UK (the national federation of food links organisations). Sue has an interest in lobbying national

government on behalf of FLUK and trying to communicate our understanding of the issues. That afternoon we had a meeting with the Food Policy Officer at the London Development Agency (LDA). Working with Sustain LDA have developed a London Food Strategy, which includes a number of “local food” themes. Local food in the context of London obviously includes food from the East of England, so we discussed some concrete mechanisms for getting East of England food into London, including distribution and branding issues and public procurement.

On Thursday we travelled to Wisbech to meet with Greenvale Foods, a large (£130m) potato marketing company to discuss the possibility of investing in machinery to produce certain potato products that are widely used in schools and hospitals, but currently all imported. That evening we had a meeting in Norwich with the party leaders of the 4 main parties on Norwich City Council (Lab, Lib, Green and Con).

On Friday Monica attended a meeting at our offices with team members to map out work on our proposed new Certificate of Provenance for sustainable local food. Monica then joined my colleague Nick for the lunchtime launch of a new food magazine, 'Season', before returning home.

I enjoyed having Monica around. Her questions and comments were intelligent and displayed a quick understanding of the issues. I wish her well with her studies and future employment.