



**An Evaluation of the Food Safety Authority  
of Ireland's First National Guide to  
Food Safety Training**

**July 2003**

## **CONTENTS**

	<b>Page</b>
<b>1. INTRODUCTION</b>	<b>3</b>
<b>2. METHODOLOGY</b>	<b>3</b>
<b>3. RESULTS AND DISCUSSION</b>	<b>3</b>
3.1 Response Rate and Respondents' Profile	<b>3</b>
3.2 Results of Evaluation	<b>5</b>
<b>4. CONCLUSION</b>	<b>10</b>
4.1 Food Safety Authority of Ireland Action	<b>11</b>
<b>REFERENCES</b>	<b>12</b>
<b>APPENDIX 1: QUESTIONNAIRE</b>	<b>13</b>

## **1. INTRODUCTION**

In May 2001, the publication of the Food Safety Authority of Ireland's (FSAI) *Guide to Food Safety Training - Level 1*, represented the first ever attempt to provide national guidelines for food safety training in Ireland. The aim of the guide was to encourage employers to become actively involved in training their staff, benchmark how employees and employers should behave in order to enable and reinforce best practice and outline the standards of competence required of employees at induction level.

To evaluate the effectiveness of the guide, the FSAI recently conducted a survey, the objectives of which were:

1. To quantify the extent to which the guide was of assistance to employers
2. To identify barriers to implementation of the guide's requirements
3. To improve future training guides and the effectiveness of FSAI training initiatives.

## **2. METHODOLOGY**

As the survey was to be conducted by post and a low response rate was envisaged, questionnaires were sent to all employers in the food sector who were known to have received the guide from the FSAI. As the guide had also been distributed by Environmental Health Officers (EHOs) during inspections, a number of EHOs assisted the FSAI by providing contact details of premises in their areas. A total of 628 questionnaires were sent out.

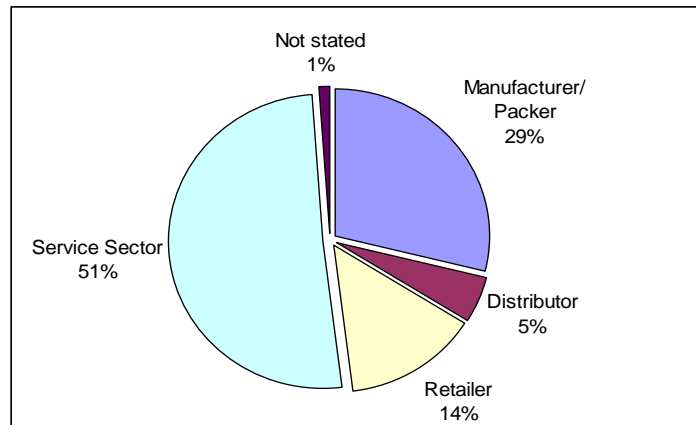
The questionnaire itself was developed with the assistance of a focus group of food safety consultants from a spread of locations around the country. When it was ready to be piloted, thirty employers with e-mail addresses were chosen. Again, to ensure a good geographical spread, they were selected from locations around the country. Telephone calls were made to each to explain the aim of the pilot and obtain their consent. Twenty agreed to participate, of whom eleven responded with completed questionnaires and suggestions for improvement.

## **3. RESULTS AND DISCUSSION**

### **3.1 Response Rate and Respondents' Profile**

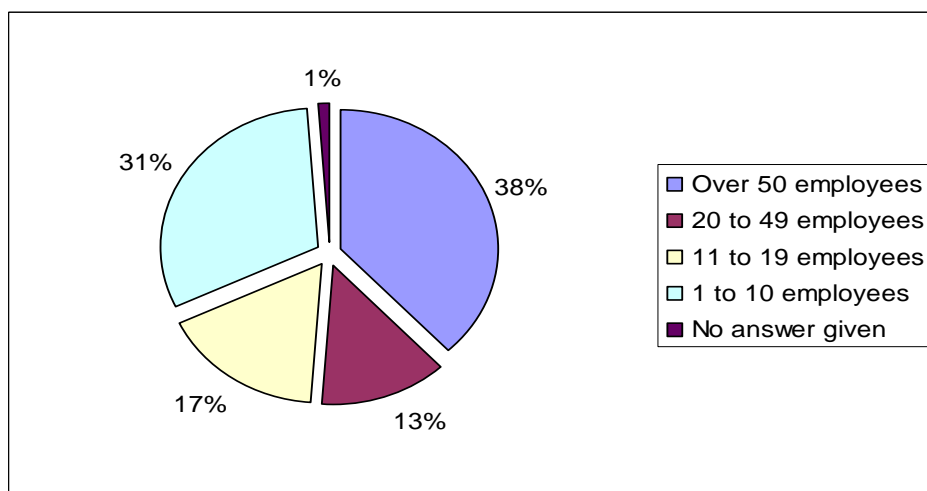
As envisaged, the response rate was low (19.2%). Out of a total of 628 questionnaires distributed, 120 were completed and returned, of which 51% came from the service sector, 29% were from the manufacturing/packing sector and 14% were from the retail sector. The remainder were distributors or wholesalers (Fig. 1).

**Figure 1: Profile of food business sectors that responded**



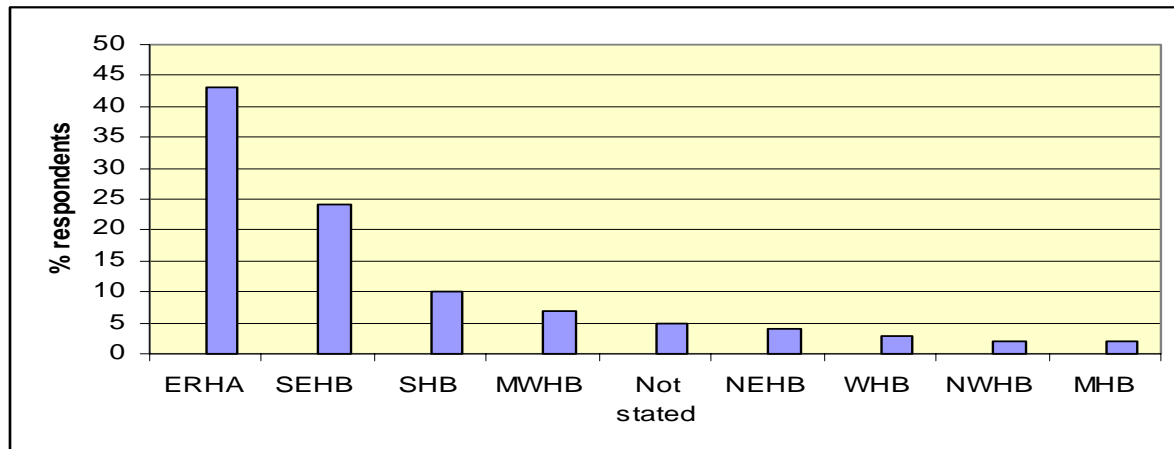
The size of organisation that responded can be seen in Figure 2. 38% were large businesses (over 50 employees), 31% micro-businesses (1-10 employees) and the remainder were small to medium-sized businesses (30% in total).

**Figure 2: Profile of business size for respondents**



The geographical spread (Figure 3) revealed the greater concentration of businesses (43%) to be in the Dublin/Kildare/Wicklow area, with concentrations also in the South-East and South (reflecting the fact that EHOs in these health boards had provided details of premises for the survey).

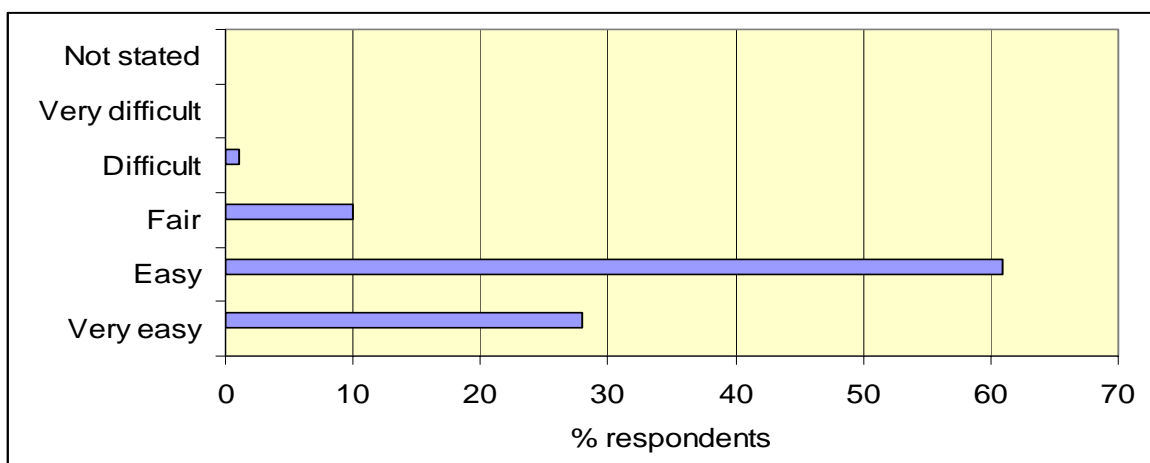
**Figure 3: Distribution of food businesses that responded by health board**



### 3.2 Results of Evaluation

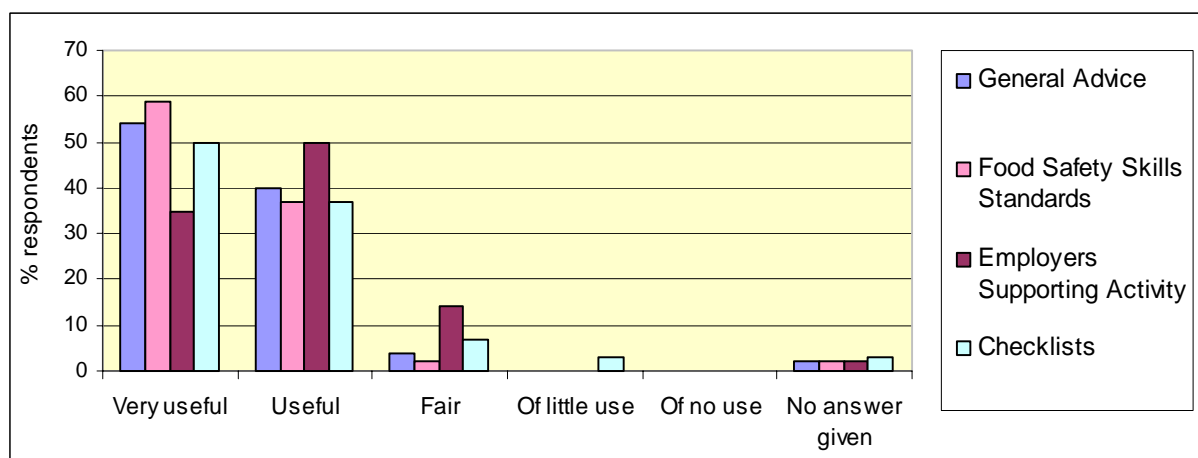
The FSAI was aware from the outset that the easier the guide was to read and use, the more likely it was to be understood and implemented by the target group. Respondents were asked, therefore, to rate the extent to which they believed this to have been achieved (Fig. 4). Most found the guide easy to use (61%), while 28% rated it 'very easy'. Of the 13 respondents who rated it 'fair' or 'difficult', 10 were businesses employing less than 20 people. Although it was encouraging that a high proportion of respondents found the guide easy to use, it is worth noting that the thirteen respondents who gave it a 'poor' or 'fair' rating (most of whom were small businesses), obviously experienced some difficulty.

**Figure 4: Extent to which respondents found the guide easy to use**



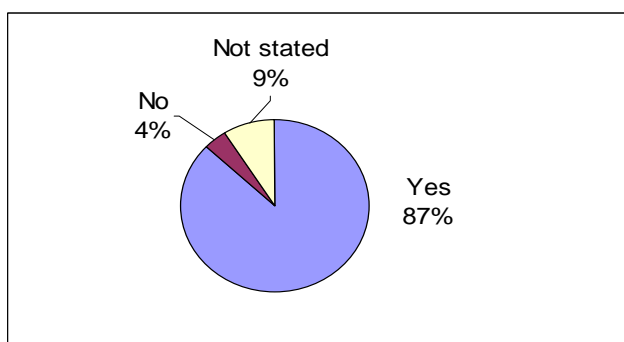
When respondents were asked to rate the usefulness of the main sections of the guide (Fig. 5), over 85% rated all four sections useful or very useful, with the food safety skills standards section receiving the best combined ratings (94%).

**Figure 5: Usefulness of information in main sections of the guide for respondents**



When asked if they had implemented any of the guide's recommendations, 87% of respondents said that they had (Fig. 6), while 5 respondents said they had not. When asked about barriers to implementation in the second part of the question, 2 of these 5 indicated that they had already implemented the guide's requirements, while 2 more said that high staff turnover was a barrier. The remaining one indicated that cost of training had prevented implementation.

**Figure 6: Percentage respondents who said they had implemented some of the guide's recommendations**



Barriers identified by respondents to implementing the guide's requirements are illustrated in Figure 7. Lack of time and high staff turnover were identified most frequently, while cost of training was identified as a barrier by only seven. The focus group had previously identified lack of funding as an issue, but the survey suggests that it is not the biggest issue for employers. Other issues, like staff shortages/turnover, learning difficulties, and staff resistance to training were identified by the same number.

**Figure 7: Barriers identified by respondents to implementing the guide's recommendations**

<b>Barrier</b>	<b>No. of respondents *</b>
Lack of time to implement or to prepare course materials	32
High staff turnover	21
Cost of training	7
Information already implemented	7
Staff literacy difficulties, language barriers, unwillingness	4
Lack of management commitment	3
Too much information for a small business	2
Unable to release staff for training	2
Business currently in difficulty	1
Had difficulty obtaining protective clothing	1
Difficulty gathering evidence for assessment	1

**\*A respondent may have indicated more than one barrier**

The majority of respondents (60%) said that they would like other information to be included in the guide and went on to assist the FSAI by identifying the type of information required (Fig. 8). The fact that sample training and food safety records were most frequently suggested indicates a concern for demonstration of due diligence as a defence against possible litigation. It also suggests a possible lack of confidence in their own ability to design adequate records of this kind. Some suggestions pointed to the need for a "Train the Food Safety Trainer" course, (also suggested by the focus group), which would give managers the confidence to use and implement the guide. Other requests for information on the sourcing of training aids, reference materials and microbiological information will be incorporated into *Guide to Food Safety Training – Level 3*.

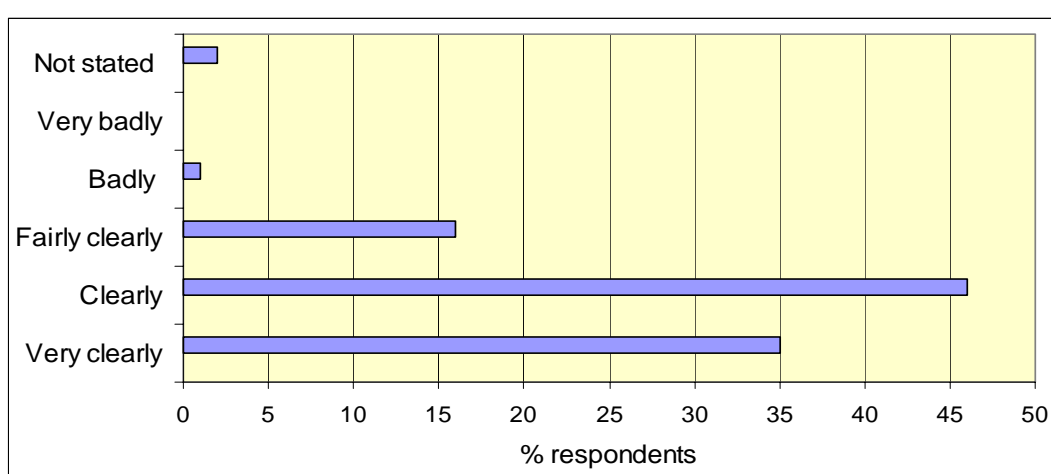
**Figure 8: Respondents suggestions of other information to be included in the guide**

<b>Suggestion</b>	<b>No. of suggestions *</b>
Sample training records	58
Food safety records	53
Training aids	50
Training delivery tips	44
Training video/pack to give trainers confidence in using the guide	8
Presentation/sample slides to complement the guide	5
Posters & graphics to complement the guide	4
Information on how to source training aids	3
Current legislation & publications for reference & where to obtain them	2
Microbiological information	1
More detailed advice on how to take a structured approach to training staff	1
Specifics on standard of competence required to deliver the programme	1
Case studies where excellence in this area has been achieved	1
Include sub section for training of non-nationals	1

**\*A respondent may have made more than one suggestion**

When asked to rate the extent to which the guide clarified what staff should be able to do (Fig. 9), 46% said that the guide described this clearly, 35% said 'very clearly' and 16% said 'fairly clearly'. Just one respondent said it was badly described.

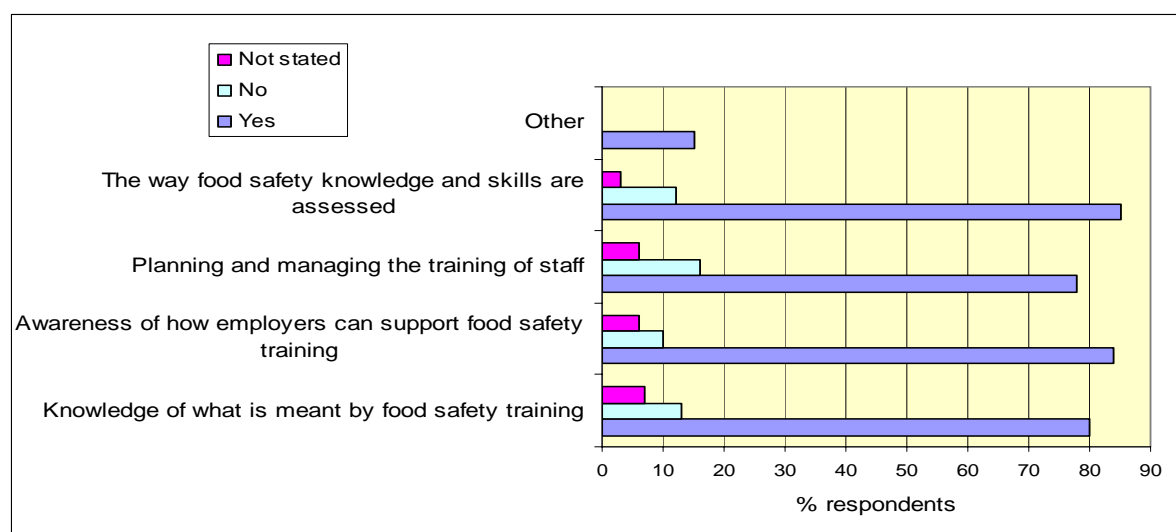
**Figure 9: Extent to which guide clarified what staff should be able to do**





Finally, respondents were asked to indicate whether use of the guide had led to improvements in four areas stated on the questionnaire and to describe any other areas it had improved (Fig. 10). 78% or more indicated that the guide had led to improvements in all four areas stated, while improvements were noticed by 80% in their understanding of what was meant by 'food safety training'; by 84% in their understanding of how employers could support training; by 78% in the way they managed the training of staff; and by 84% in the manner in which staff were assessed. Other improvements described are outlined in Fig. 11.

**Figure 10: Percentage who said that the guide made the following improvements**



**Figure 11: Respondents other suggestions of improvements made by the guide**

Suggestion	No. of suggestions *
Took some information/ideas from guide	5
Being able to check back to the guide gave us confidence	2
Provided excellent guidance for employers	2
The guide helped simplify & clarify what was required	2
Improved general overall knowledge	2
Informative for new companies/personnel new to food safety	1
The post training checklists were useful	1
An improvement in organised training	1

\* A respondent may have made more than one suggestion

#### 4. CONCLUSION

The gaining of a hygiene certificate has been shown by more than one study to be a poor guarantee that a food handler will retain or implement in practice what s/he has learned in theory<sup>1,2</sup>. The results of other studies show no simple link between training, knowledge and practice for non-management staff<sup>3,4,5</sup> unless the training is behaviour-based and is followed by behavioural management intervention techniques<sup>6</sup>. Several studies have also questioned the relevance of knowledge-based training<sup>7,8</sup> and one in particular has shown how food safety can be significantly improved when practical, relevant training methods are used<sup>9</sup>.

In light of the above, the FSAI guide had recommended that training for food handlers be competence-based with the emphasis on practical application and what the employee should be able to do – an approach broadly supported by the results of the survey. A high proportion of respondents found the guide's information useful and noted that use of it had led to improvements in a number of areas.

Smith<sup>10</sup> recommends that authorities should set food safety performance standards to ensure that knowledge is translated into positive action. This appears to be supported by the high proportion of respondents who found the food safety skills section useful and who said that the guide improved their understanding of what is meant by food safety training. The survey's findings also supported regular competence-testing of staff to ensure adherence to performance standards with 84% in agreement that the guide had improved the way food safety knowledge and skills are assessed in their operations.

While the basic principles of the guide appear to have been met with almost universal acceptance, the survey highlighted a number of barriers to implementation of these principles. Those most frequently identified were lack of time and high staff turnover. Cost of training, while highlighted as the main barrier for the focus group, was identified by only 6% of respondents. Other staff issues such as learning difficulties and language barriers were mentioned by the same number. Lack of management commitment to training came up as an issue in the survey, as did the fact that there was too much information in the guide for some small businesses.

Despite these barriers, it was encouraging to see that 87% of respondents had implemented at least some of the guide's recommendations. Considering the diversity of food businesses that responded and the fact that the guide was generic in nature, this was a positive result. Similarly, a high proportion of respondents said that the guide described clearly what staff should be able to do. The results for improvements made by the guide are also encouraging. At least 85% of respondents said that use of the guide had led to improvements in each of the four areas identified and additional comments confirmed that for some employers, the guide did achieve what it was intended to do, i.e. provide clarity for the user and increased confidence in training staff.

Participants in the survey made a number of useful suggestions to assist the FSAI in improving future training guides and in ensuring the effectiveness of training initiatives, most of which have been included in the actions which follow. The results of this survey indicate that *Guide to Food Safety Training – Level 1* was of assistance to employers,

but it has also highlighted areas where improvements and further interventions are required. However, if the actions identified below are addressed, the FSAI should come closer to achieving its objective of ensuring that staff are trained to produce safe food for consumers.

#### **4.1 Food Safety Authority of Ireland Action**

- Training materials will be developed to accompany *Guide to Food Safety Training – Level 1*. These materials will try to accommodate the needs of staff with language or learning difficulties and will include sample food safety records to assist implementation.
- *Guide to Food Safety Training – Level 3* for managers and supervisors will include sample training records; microbiological information; current legislation and where to obtain it; lists of publications for reference and information on how source training materials. It will be reviewed by employers before it is published to ensure ease of use.
- A “Train the Food Safety Trainer” course will be developed to give managers the confidence to use and implement the guide and to address any concerns they have in training their staff. The training delivery topics identified by employers in this survey should be addressed in this programme.
- A simpler version of *Level 1* will be designed for small businesses and developed with their assistance

**The FSAI would like to thank the EHOs from the South Eastern and Southern Health Boards who provided details of the employers in their areas who had received the guide. We would also like to express our gratitude to the fifteen food safety consultants who participated in the focus group, and to all of the employers who took the time to respond to the survey.**

## REFERENCES

1. Powell, S. C., Atwell, R. W., and Massey S.J. (1997) The impact of training on knowledge and standards of food hygiene – a pilot study. *International Journal of Environmental Research*, 7, 329-334.
2. Ehiri, J., Morris, G. & McEwen, J. (1997) Evaluation of a food hygiene training course in Scotland. *Food Control*, 8, 137-47.
3. Kirby, M. P. & Gardiner, K. (1997) The effectiveness of food hygiene training for food handlers. *International Journal of Environmental Health Research*, 7 (3) 251-258.
4. Mahon, B. E., Sobel, J., Townes, J. M., Mendoza, C., Gudiel Lemus, M., Cano, F. and Tauxe R. V. (1999) Surveying vendors of street-vended food: a new methodology applied in two Guatemalan cities. *Epidemiology and Infection*, June, 122(3), 409-16.
5. Clayton, D., Griffith, C., Price, P. & Peters, A. (2002) Food handler's beliefs & self-reported practices. *International Journal of Environmental Health Research*, Mar; 12(1):25-39.
6. Johnson, D. R. (1996) Behaviour-based food safety training using HACCP principles. *Dissertation Abstracts International*, B; 56 (9) 4661 Order no. DA9544222, 142pp.
7. Mortlock, M. P., Peters, A. C., and Griffith C. J. (2000) A national survey of food hygiene training and qualification levels in the UK food industry. *International Journal of Environmental Research*, 10, 111-123.
8. Garin, B., Aidara, A., Spiegel, A, Arrive, P, *et al* (2002) Multi-center study of street foods in 13 towns on 4 continents by the food & environmental hygiene study group of the international network of Pasteur & associated institutes. *Journal of Food Protection*, Jan; 65(1):146-52.
9. Martinez-Tome, M., Vera, A.M. & Murcia, M.A. (2000) Improving the control of food production in catering establishments with particular reference to the safety of salads. *Food Control* 11 (6) 437-445.
10. Smith, R. (1994) Food Hygiene Training: The Chance to Create a Coherent Policy, *British Food Journal*, Vol. 96 no. 7, 1994, pp.41-45.

## **APPENDIX 1: QUESTIONNAIRE**

The Food Safety Authority of Ireland is currently evaluating *Guide to Food Safety Training – Level 1* and the extent to which it is of assistance to the food sector. Please assist with our evaluation by answering the following questions.

1. How easy did you find the guide to use?  
(PLEASE TICK)

Very easy	Easy to use	Fair	Difficult to use	Very difficult

2. How useful was the INFORMATION provided in each of the main sections of the guide?  
(PLEASE TICK FOR EACH SECTION)

Section	Very useful	Useful	Fair	Of little use	Of no use
1. General advice					
2. Food safety skills standards					
3. Employers supporting activities					
4. Checklists					

3. Did you implement any of the information in the guide?

Yes		No	
-----	--	----	--

Did anything prevent you? (PLEASE TICK or DESCRIBE)

Lack of time		Lack of management commitment	
Cost of training		High staff turnover	
Other (Please describe)			

4. Would you like any other information to be included?

Yes		No	
-----	--	----	--

If so, PLEASE TICK ONE OR MORE or DESCRIBE

Training delivery tips		Sample training records	
Training aids		Sample food safety records	
Other (Please describe)			

5. How clearly does the guide describe what staff should be able to do?  
(PLEASE TICK ONE)

Very clearly	Clearly	Fairly clearly	Badly	Very badly

**6. Overall, did the guide improve the following?  
(PLEASE TICK)**

	Yes	No
A. Your knowledge of what is meant by food safety training		
B. Your awareness of how employers can support food safety training		
C. The way you plan and manage the training of staff		
D. The way food safety knowledge and skills are assessed		
E. Other (Please describe)		

**GENERAL INFORMATION**

**1. Which of the following categories best describes your food operation?  
(PLEASE TICK MOST APPROPRIATE DESCRIPTION)**

Manufacturer/Packer (all manufacturing/processing/packing establishments)	
Distributor (pre-retail distribution activities, importation, wholesaling, wholesale storage)	
Retailer (all types of retail activity - sales to the final consumer: e.g. supermarkets.	
Service Sector (restaurants, takeaways, canteens in firms/public institutions, caterers and public houses)	

**2. Approximately how many people does your organisation employ at your location?  
(PLEASE TICK)**

1 to 10 employees		20 to 49 employees	
11 to 19 employees		More than 50 employees	

**3. COMPANY DETAILS (OPTIONAL)**

**Name:** \_\_\_\_\_

**Business address:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**THANK YOU FOR TAKING TIME TO COMPLETE THIS QUESTIONNAIRE**