



# final report

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## External review of meat information services program

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## **Abstract**

The Meat Industry Service (MIS) program is a collaborative approach involving multiple stakeholders across providers and the processing sector. For the explorative phase, five face to face personal interviews were conducted, in southern New South Wales and around Brisbane, followed by a further ten extended executive telephone interviews with key stakeholders across Australia. For the quantification phase, 59 respondents were interviewed across Australia using Computer Aided Telephone Interviews.

The views of the respondents in the explorative review differed to those in the quantification phase. This may have resulted from the respondents in the qualitative phase being picked by MLA to be interviewed. Furthermore, having been more respondents from domestic abattoirs may have skewed the results as the MIS program tends to receive more enquiries from export plants due to more challenging meat quality and safety issues. The quantitative respondents tended to be Chief Executive Officers and Directors whereas the qualitative phase mainly involved plant technical staff.

In the qualitative phase respondents' awareness of the MIS program was 87%, while it was only 14% for the quantitative phase. This emphasises the fact that the users of the MIS program are well known to the industry, and those associated with the MIS program. Awareness outside of this group is relatively low, and of those who do know about it, few use it.

While the MIS program has been around the industry for a long time, in light of staff turnover, the organisations that manage the MIS program need to consider further promotion of the program to the industry, to raise awareness.

One of the main barriers to adoption of the various functions of the MIS program was awareness. Potential exists for industry to become more engaged with the Program through increasing the amount of forums conducted and by being more public in their roles and functions. There was also a desire for the Meat Technology Update and What's New newsletters to be emailed out, rather than posted, as it would allow for greater distribution within organisations.

## **Executive Summary**

The MIS Program is funded by MLA, AMPC and CSIRO and is administered by CSIRO Food and Nutritional Sciences (CFNS). The service provides R&D outputs and improvements in QA and other procedures to the processing sector, regular bulletins and responses to requests and enquiries from those involved in the industry. As a result of the dynamics of organisational and priority changes within both CFNS and CSIRO, as well as emerging support needs and delivery options, a review of the MIS program was conducted.

The research was split into a qualitative and a quantitative phase. The qualitative phase involved 15 stakeholders, whose names were provided by CFNS. Fifty nine people, from a list of AMPC members, were involved in the quantitative phase with the majority being from domestic (42%) or export (32%) abattoirs. Results between the two groups differed significantly in some areas, particularly in awareness of the program. In the qualitative phase 87% of respondents were aware of the program while only 14% of those involved in the quantitative phase were aware.

### **Value of the MIS program**

Respondents were generally satisfied with their use of the service. Similarly, of those respondents in the quantitative phase who used or knew of the service the results indicated that they were generally happy with the service and thought it was an important and credible program. Three quarters of those respondents also stated they would be happy to pay for the MIS service, up to a point.

Respondents in the qualitative phase believed all functions of the service were important. The service was seen to be important to the industry as a whole by respondents, even if particular parts of the service were not that important to them. The breadth and depth of knowledge and the relevance of the information provided by MIS was noted as being an important function of the service. Having access to CSIRO's library through the MIS was viewed as very useful.

When asked about future information requirements, the most requested information type was the need to keep abreast of industry innovations and developments (41%), followed by relevant market information (24%).

### **Updates and Newsletters**

In the qualitative phase, the majority of respondent's who were aware of the MIS Program (87%), were also aware of the "Meat Technology Updates" and "What's New" newsletter's (92%). Regular meat technology updates to industry rated as the most important 'primary function' of the service in the quantitative phase. Respondents in the quantitative phase who used the service were very satisfied with the "Meat Technology Updates" as they provide information on new and emerging issues, and were particularly beneficial where respondents were developing new divisions / parts to their business. They also act as a library of ideas which have been tried in the past, helping prevent people from using something that hasn't worked previously.

Respondents in both phases indicated a desire for the update and newsletter to be emailed out, rather than posted, as it would allow for greater distribution of the information within organisations. CFNS does provide an email version of these publications thus this result indicates a lack of awareness of this option.

### **Rapid response advisory service**

Of the respondents aware of the rapid response service, they indicated that they generally used their own contacts first before going to CFNS with their problem. The rapid response service was seen as a beneficial service when they had nowhere else to turn to and for those in the industry who were yet to build a network of contacts. In the qualitative phase not all respondents were aware of the Rapid-Response Advisory Service provided by the MIS.

### **Other information sources**

About 70% of respondents believed that there was an overlap in the information provided by the MIS and other information sources although most of those believed it was a good thing. The main sources of information other than MIS used by people in the industry were MLA (51%), AMIC (32%), AusMeat (19%), AMPC (17%), AQIS (12%) and Personal Networks (12%).

### **Barriers to adoption of the MIS program**

Barriers to adoption of the MIS relate to knowledge of its existence and to the extent and type of functions and services it can provide. This was particularly evident in the quantification phase where only 14% of respondents (out of 59 contacted) were aware of the MIS program. Of the 14%, two out of five of those aware of the MIS had not actually used the service. Additionally, many respondents were unsure of who ran the MIS program. Other barriers to adoption included respondents using a wide range of other information which may have influenced the need for and use of the service and a lack of understanding of the role of the MIS for some respondents.

### **Conclusions and recommendations**

The key outcome of this research appears to be that awareness of MIS amongst industry members is limited. This requires further promotion of the MIS to industry, to raise awareness of the services that the MIS program provides. Furthermore, the provision of the updates and newsletters in email format needs to be better advertised to current and potential users of the service.

The research raised the question of whether the promotion of the program has not been prioritised because the service has been running for so long that it is subconsciously considered to be a part of the collective awareness of industry. Staff/personnel changes within the processors was also suggested as a reasons for a lack of awareness (i.e. new staff may not know of the MIS program whereas their predecessor did).

The above conclusions may be addressed by:

- Advertising the ability to provide email updates and newsletters to current and potential users of the service;
- Encouraging the distribution of email newsletters to colleagues;
- Attending industry events and representing the service;
- Periodically contacting key personnel/positions at processing plants that would benefit from the service.
  - By regularly (e.g. annually, biennially) contacting people in key positions, the appropriate people are made aware and/or reminded of the service. This strategy addresses staff turnover. Informal feedback may also be a positive outcome of this strategy;

Providing a periodic 'index of services' of the MIS to all current and potential users of the service to remind people of the services they have access to through the program.

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## 1 Background

The Meat Industry Service (MIS) program is a collaboration involving multiple stakeholders across providers and the processing sector. The MIS program:

- Is supported by MLA, AMPC and CSIRO and delivered by the Centre for Food and Nutritional Sciences (CFNS)
- Focuses on four key areas which are:
  - The creation of a pipeline for delivery of R&D outputs to the red meat processing sector;
  - Promoting and facilitating processor uptake of improved procedures and QA;
  - Publication of quarterly bulletins; and
  - Fielding a full range of requests and enquiries

Given the dynamics of organisational and priority changes within both CFNS and CSIRO and emerging support needs and delivery options, a review of the MIS program was conducted.

## 2 Project Objectives and Issues

### 2.1 Project Objective

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The central objectives of this project were to:

- Provide an estimation of the contribution made to achieving industry outcomes by the MIS program;
- Investigate and describe current industry needs, perceptions, expectations and delivery model preferences of the service with a view to examining the effectiveness of the current MIS model and informing consideration of alternatives;
- Determine the benefits and contribution of the program to achieving industry outcomes;
- Identify key limitations or barriers that may be restricting the level of, and/or ability to adequately measure the outcomes achieved for industry;
- Recommend and prioritise changes to the strategy and operational aspects of the program that will improve its outcomes; and
- Provide benchmarks and practical (measurable and relevant) key performance indicators (KPIs) to guide future program initiatives.

## **3 Exploration**

### **3.1 Executive Summary**

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The majority of the respondents who were aware of the MIS program (87%) were also aware of the Meat Technology Updates and What's New newsletter's (92%). However, under half of respondents were aware of the Rapid-Response Advisory Service provided by the MIS program. This may be due to interviewees having a wide range of personal networks to use instead. This finding was tested further in the quantitative section of the review.

Respondents felt that all functions of the MIS program were important and often found it difficult to name the primary function, let alone the least important function.

One of the main barriers to adoption of the various functions of the MIS program was awareness. Potential exists for industry to become more engaged with the program through increasing the amount of forums conducted and by being more public in their roles and functions. There was also a desire for the Meat Technology Update and What's New newsletters to be emailed out, rather than posted, as it would allow for greater distribution within organisations.

### **3.2 Methodology**

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The Exploration Phase provides in-depth assessment of the issues at hand (both known and unknown). This will ensure that the underlying needs, perceptions and expectations of stakeholders and the past and future impact of the program on their operation are revealed and clearly understood.

An Interview Guide was developed to address the project objectives and was approved by MLA and AMPC prior to conducting fieldwork.

A combination of face to face and extended executive telephone interviews were conducted with the 15 stakeholders supplied.

Five face to face interviews were conducted in southern New South Wales and in Brisbane and the surrounding area in Queensland. The advantages of face to face interviews include:

1. Achieving a more intense evaluation of stakeholders with complex needs due to the scale of their operation or other factors;
2. Documentation regarding procedures and quality assurance as a result of the MIS program can be viewed by the executive interviewer adding significant depth to the interview; and
3. For organisations where more than one person is involved with the MIS program, more than one person can be interviewed at the same time in the one location

A further ten extended executive telephone interviews were then conducted with key stakeholders across Australia.

### **3.3 Demographics**

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Respondents were recruited from the AMPC and MIS processor stakeholders who agreed to be involved in the interview process.

Respondents were from New South Wales, Victoria, Queensland and Western Australia, representing: export abattoirs, domestic abattoirs, processors, industry organisations, renderers, cold stores, feedlots, farms and laboratories.

The specific roles of the respondents varied from technical managers, innovation managers, quality assurance, food safety, maintenance, AQIS auditors, company directors, executive officers, managing directors and program managers.

### **3.4 General Information Needs and the Decision Process**

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The general information requirements of respondents involved in this research were as varied as the respondents themselves. Information needs were centred around legislation and regulatory requirements (both domestic and overseas), meat science (slaughtering, boning, cutting, pH, food safety, shelf life, and refrigeration index), technical information (new and specific), science, innovation and technology updates, and animal welfare.

Respondents noted that the following information sources were used to address their information needs. Information sources included: meat notices (emailed), Angus Society; Customers (e.g. McDonalds, Burger King, Woolworths, Coles), AusMeat; head offices overseas, MINTRAC, websites in general, AQIS, Food Science Australia, suppliers, industry contacts in general, MLA, former MLA staff, AMIC, CSIRO,; meat CRC's, Food Standards Australia and New Zealand (FSANZ) and overseas meat industry peak bodies (e.g. MATFA in New Zealand and the US Department of Agriculture).

While respondents used a range of information sources, they tended to rely on their own networks of people as the first step in gaining information. Where they do not know who to call, they will often research the issue on the internet, digest the information and then contact the MIS to request further information or enquire who to call for further information.

Respondents tend to use their own personal network of contacts as the first step in gaining information due to their familiarity and knowledge of the issues or knowledge of who is the best person to speak to.

CFNS was seen as an independent and credible source due to their scientific testing and valuation.

Most respondents mentioned MLA (or former MLA staff) as a source of information due to the reliability and range of topics available and that staff are experienced in a range of areas.



### 3.5 Understanding Roles of the MIS Program

Understanding of the role of the MIS program ranged from an extensive understanding, through to no knowledge. A few respondents confused the MIS program with the role and services provided by the MLA.

Unprompted, the respondents identified major roles of the MIS program to be:

- Distributing relevant information every two to three months;
- A source of intelligence and information to reference back to;
- A supplier of practical extension material;
- Part of CFNS;
- Providing information to help organisations become more innovative;
- Develop new innovation and product development; and
- Anticipate issues / changes in the industry and “*put out fires*”.

Table 1 represents the total awareness (unprompted and prompted awareness) of the individual components of the MIS program, of those respondents aware of the MIS program.

**Table 1: Awareness of MIS Program Roles**

<b>Program Role</b>	<b>Total Awareness (n = 13)</b>
Distributing regular meat technology updates to industry with information on the latest developments	92%
Developing effective responses and solutions to current and emerging industry issues and problems of national importance to the meat industry	69%
Carrying out applied research and development projects for meat processors and other clients	69%
Contributing to key industry advisory committees, industry meetings and conferences	69%
Providing access to international information on meat processing and food safety, including the extensive library resources of CSIRO Food and Nutritional Sciences	62%
Providing a rapid-response advisory service to industry and government organisations	46%

While the vast majority (92%) of respondents were aware of the distribution of regular meat technology updates to the industry with information on the latest developments, under half (46%) were aware that the MIS program provided a rapid-response advisory service to the industry and government organisations.

### 3.5.1 Primary Function of the MIS Program

Respondents found it hard to single out one function of the MIS program as being the most important, as they saw all the functions as being important. The most important function of the MIS program was conducting research and development, either as a rapid response to an issue or in relation to new technology and innovation.

One area that was highlighted by a number of respondents as being an important function of the program was that the program provided information and support across a range of issues that were as a whole very important to the industry, from the paddock through the abattoirs and on to export.

Being a consolidated point of reference was regarded as a very important function of the MIS program. The information that has been provided by the MIS program was seen as invaluable where relevant to the individual respondents. AQIS and the export abattoirs in particular, placed an emphasis on the importance that, through the MIS program, they were able to provide a united response from an independent research organisation to prevent overseas clients trying to play them off against each other. These unified responses were also seen as a way of preventing companies from making commitments that the industry cannot meet.

### 3.5.2 Least Important Function of the MIS Program

Respondents found it particularly hard to single out one function that was of least importance to them, as that function potentially was considered very important to the industry as a whole.

However, developing effective responses and solutions was seen as an unimportant function, as respondents felt that they receive this from other forums, and that often by the time that the MIS program addresses the issue, the urgency may no longer be there. They felt that the MIS program needs to be proactive in its research, not reactive, as the program needs to effectively look for potential problems and issues in the future and develop solutions and responses before they arise.

Giving credence to regulators and advising the government was also seen as a non-core function of the MIS program, as this should be left to industry organisations and peak bodies, such as the MLA and AMPC, and to big organisations such as CSIRO.

### **3.6 Use and Satisfaction with the MIS Program**

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All respondents stated they were satisfied with their use of the program.

The majority of the respondents had experience in running research programs in conjunction with the MIS program, and / or MLA. They were very satisfied that the MIS program was able to put some science behind Australia's bio-security status rather than relying on political opinion in response to the rest of the world.

Of those respondents aware of the rapid-response service, they had corresponded with CFNS mainly through email as a point of contact. Where they had an issue, they would try to use their own contacts first before going to the CFNS. This service was seen as a beneficial service when they have no-where else to turn to, and for those entering the industry which had yet to build and cultivate their own network of contacts.

Research issues, and / or topics mentioned that respondents had been involved in or used included: overseas chilling; shelf life; dark cutting; pH; microbiology (customers samples); ecimosis; frozen block trial; browning; carcass / spray chilling; *Salmonella*; carbon; Carbon Pollution Reduction Scheme; energy; water efficiency; eating quality; microbiological control; and development of the refrigeration index.

Respondents were very satisfied with the Meat Technology Updates as they provide information on new and emerging issues, and were particularly beneficial where respondents were developing new divisions / parts to their business. The updates also act as a library of ideas that have been tried in the past. This helps prevent people from using or doing something that hasn't worked previously. Some respondents indicated some disappointment that the Meat Technology Updates are not as regular as they used to be. Meat Technology Updates are used in a multitude of ways, from answering customer questions to being used as good background information, and are seen as an independent source of information for issues in the industry.

CSIRO's library resources were seen as a method of finding and accessing specific publications and journals. In particular one respondent mentioned using the CSIRO's library in relation to microbial testing in the USA and what they are looking for – this information allowed the respondent to stay one step ahead.

### 3.7 Barriers to Service Adoption

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The main barriers to the adoption of the MIS program relate to knowledge of its existence and what the function of it is – relevance “*out of sight, out of mind*”. Some respondents are aware of the program but are unsure of what it does. While some respondents are aware that the MIS Program is there, they do not know all of its functions, in particular the rapid-response advisory service.

Furthermore, respondents indicated that they only look for what is relevant to them at the time, and are often unaware of other information the MIS program has available. Therefore, there is the potential to provide an index of what is on file periodically to help alleviate this issue and increase uptake.

One respondent felt that where a research project did not give the desired outcomes, more work should to be done to find out why it did not work – allowing them to “co-generate, rather than re-invent”.

#### 3.7.1 Other information Sources

Potential uptake of the MIS program may have been influenced by respondents using other information sources in their day to day jobs. Some of these information sources are specific to a particular industry or part of a larger company structure. These information sources are used due to the specific nature of the information required. These other information sources mentioned by respondents included:

- AQIS;
- FSIS (USDA), and the equivalent in destination countries;
- MLA;
- Food Standards Australia and New Zealand (FSANZ);
- AUSMEAT;
- JBS Swift;
- Personal networks;
- Paid consultants – only on a needs basis;

The only overlap in information was seen when there is a crisis, when everyone is trying to solve it, or when commercial / private companies are undertaking their own research. Overall the respondents felt that the MIS program has the meat industry at heart, whereas it is viewed that the regulatory bodies do not take into account the whole impact.

### **3.8 Alternative options for the MIS Program**

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Respondents indicated that a weakness of the program was that it no longer has the resources, time and capacity for staff to get their “*hands dirty*”.

In recognition of the restricted budget and the potential need to rationalise the Program, respondents made the following observations about what they think MIS needs to do:

- Engage with the industry more often through more forums – highlighting the need to bring together expert groups;
- Soft copies of the Meat Technology Update (MTU) and What’s New (newsletter) rather than being mailed out. This would allow for greater distribution within an organisation;

One observation of the future adoption of the service was “*where are the next generation of scientists coming from*”, as there appears to be no succession planning for the MIS program.

While some of the respondents pay for consultants, the majority do not as they feel that they are able to find the relevant information using their own networks or current fee free services. They believe that paid consultants “*tell you what you want to hear, not what you need to hear*”. When probed on whether they would use the MIS program if they had to pay for it, via an annual subscription or on a needs basis, most respondents said that they would if they could justify the cost with the information that they received.

## 4 Quantification

### 4.1 Executive Summary

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#### Key Findings

A relatively small amount of respondents in this research (14%) were aware of the MIS program. Around two in five (38%) were able to correctly identify that the MIS program was administered by MLA.

Of those who were aware of the program, the MIS program was rated highly in terms of importance and had strong levels of awareness but considerably lower levels of usage. Also, three quarters (75%) stated that they were satisfied with MIS with the same proportion (75%) rating MIS as a credible program (31% very credible & 44% credible).

Three quarters of those who were aware of the MIS program (75%) were prepared to pay for the service. This result is coupled with 62% stating they would still continue to use MIS if they had to pay for it, 6% would not and 31% were unsure.

#### Principal Industry Information Sources used and reasons for using MLA

The main information sources used by people in the industry in their every day working life include; MLA (51%), AMIC (32%), AusMeat (19%), AMPC (17%), AQIS (12%) and personal networks (12%).

Of those people who did use the MLA information sources, the main reasons for doing so were;

- Range of information (59%)
- Relevance (31%)
- Convenient (28%)
- Quality of information (21%)

#### Awareness, Importance, Usage and Roles of the MIS Program

Of those who were aware of the MIS program, the four main unprompted perceived roles were;

- 38% - carrying out applied research and development projects for meat processors and clients.
- 25% - marketing information / issues
- 25% - providing access to international information on meat processing and food safety including the extensive library resources of CSIRO Food and Nutritional Sciences.
- 25% - developing effective responses and solutions to current and emerging industry issues and problems of national importance to the meat industry.

The majority rated the MIS program attributes affirmatively with the lowest level of total affirmation being 81%. All of those who answered this question rated important (100%) the MIS activity of, "providing a rapid-response advisory service to industry and government organisations."

A comparison of the importance of the MIS attribute evaluation with the actual usage found that usage of MIS program attributes does not necessarily reflect the perceived importance of the attributes. The attribute that received the highest importance rating actually received the lowest level of usage (100% cf 31%).

Two in five respondents (40%) who were aware of the MIS program had not used the MIS service.

A quarter of respondents (25%) identified the primary function of the MIS program as, “*Distributing regular meat technology updates to industry with information on the latest developments*”.

The service evaluation of the MIS program indicated high levels of service importance:

- 93% - Developing effective responses and solutions to current and emerging industry issues and problems of national importance to the meat industry;
- 93% - Providing access to international information on meat processing and food safety including the extensive library resources of CSIRO Food and Nutritional Sciences;
- 92% - Distributing regular meat technology updates to industry with information on the latest developments;
- 92% - Providing a rapid-response advisory service to industry and government organisations;
- 86% - Carrying out applied research and development projects for meat processors and other clients; and
- 71% - Contributing to key industry advisory committees, industry meetings and conferences.

An evaluation of the overall satisfaction of the MIS program was undertaken and overall there were reasonably high levels of total satisfaction (75%), with around one in ten expressing dissatisfaction with the service (12%).

The credibility of the information provided by the MIS program was evaluated and around three quarters (74%) of those who were aware of MIS considered the information to be credible.

### **Evaluation of the Function of MIS**

Respondents were asked to identify if there was any overlap in the information provided by the MIS program and other information sources. More than three in five (69%) thought there was an overlap. In terms of identifying which subject matter had a perceived overlap, respondents felt that the other information sources overlapped with the MIS program in the subject topics of: applied research (77%) and international information (77%).

The key concern with the information overlap is whether an overlap is a problem or not for those in the industry. No one involved in the interviews said that it was a problem, while 58% said the information overlap was “Good”, the remaining 42% said they “Did not know”. Those respondents who said the information overlap was good said that it resulted in authoritative and comprehensive information (86%) and that it helped them keep abreast of current information (29%).

The issue of the future role of the MIS program was presented to respondents for their evaluation and the majority (69%) thought the role would change. The main ways that those within the industry saw the MIS program changing were:

1. General improvement and keeping abreast of industry changes (36%);
2. Potentially fulfilling an alternative role (36%); and
3. Alternative deliveries (9%)

The distribution of the Meat Technology Updates and the What’s New newsletter was investigated to see if those in the industry would prefer receiving the information by email or post. Close to a third (31%) stated they would prefer to receive the information by email rather than post.

Those who used the MIS program were asked how they felt about being charged for the service and three quarters (75%) were prepared to pay. The remaining 25% did not want to pay for the service. Those who did not want to pay for the service stated this was because a charge was not warranted or necessary.

It was important to gauge user's perceptions of the value of the MIS program. In particular the survey questioned how much people would be prepared to pay annually for the service if a charge was applied. The majority of respondents (88%) did not know how much they were prepared to pay, while 6% said \$200 and 6% said \$300.

It was important to determine if current users of the MIS program would continue if they had to pay for the service. Consequently, two in five MIS users (62%) stated they would continue to use the MIS program if they had to pay for the service. A relatively small proportion (6%) stated they would not use the service, close to a third (31%) were unsure.

In order to be able to offer relevant information to MIS users, this research investigated what future information requirements respondents had in their current role. The most requested information type was the need to keep abreast of industry innovations and developments (41%), followed by relevant market information (24%). One of the noteworthy results to emerge is that a quarter of MIS users (24%) did not know what their future information requirements were.



## **4.2 Methodology**

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### **4.2.1 Sample Design**

A sample group of 59 meat industry personnel were interviewed by telephone by Solutions Marketing and Research during October and November, 2009.

Respondents were interviewed via Computer Aided Telephone Interviews (CATI), and were selected from a list of key industry stakeholders supplied by AMPC.

### **4.2.2 Interpretation of Results**

It should be noted that the results presented in this study are derived from a survey (as opposed to a census when all members of a population are captured). The survey results are used to make inferences about the total population. As all surveys are subject to errors, a survey result should not be treated as a single value but rather as the midpoint of the likely range that the true population result would lie within. The range around the survey result is the “margin of error”. For example, a survey result of 50% may have a margin of error of plus or minus 3% i.e. 47% - 53%. The margin of error depends on the sample size (smaller sample sizes have larger errors) and the actual sample result (a result closer to 50% has a larger error). Due to a high margin of error associated with a small sample, results based on a small sample in the analysis should be treated with caution.

The following matrix (Table 2) summarises the margin of errors for different sample sizes and different survey results. The matrix is based on a 95% confidence level, that is, you are 95% confident that the true result (the result derived from interviewing the entire population) would be in the range specified in the table.

**Table 2: Margin of Errors for Different Sample Sizes and Survey Results**

Sample Size	Survey Result									
	5% or 95%	10% or 90%	15% or 85%	20% or 80%	25% or 75%	30% or 70%	35% or 65%	40% or 60%	45% or 55%	50%
<b>25</b>	9	12	14	16	17	18	19	19	20	20
<b>50</b>	6	8	10	11	12	13	14	13	14	14
<b>75</b>	5	7	8	9	10	10	11	11	11	11
<b>100</b>	4	6	7	8	9	9	10	10	10	10
<b>150</b>	4	5	6	7	7	8	8	8	8	8
<b>200</b>	3	4	5	6	6	6	7	7	7	7
<b>250</b>	3	4	5	5	6	6	6	6	6	6
<b>300</b>	3	4	4	5	5	5	6	6	6	6
<b>400</b>	2	3	4	4	4	5	5	5	5	5
<b>500</b>	2	3	3	3	4	4	4	4	4	4
<b>600</b>	2	2	3	3	3	4	4	4	4	4
<b>700</b>	2	2	3	3	3	3	4	4	4	4
<b>800</b>	2	2	2	3	3	3	3	3	3	3
<b>900</b>	1	2	2	3	3	3	3	3	3	3
<b>1,000</b>	1	2	2	2	3	3	3	3	3	3

As a guide to interpretation, a survey result of 30% (or 70%) from a sample of 1,000 people would have margin of error of 3%, that is, you are 95% confident that the true answer would lie between 27% and 33%.

Results for the research have been analysed using both graphic (as contained in this report) and tabular formats (contained in the Appendix of this report).

Care should be taken when interpreting the results with less than 30 respondents. It is with this in mind that only State results have been presented in this report. Regional analysis is available in the tables supplied as an appendix.

### 4.3 Background to the Analysis

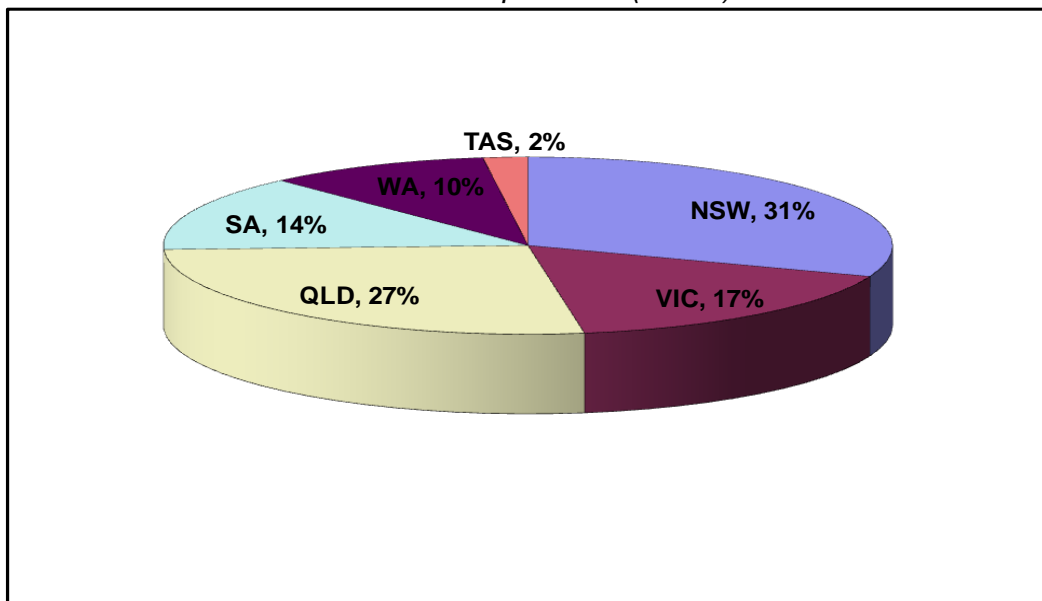
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The results and discussion presented in this section summarises the current awareness and use of the MIS program as well as information sources used and reasons for their use, and future information requirements. Respondents using the MIS program were also tested on their willingness to pay for the program.

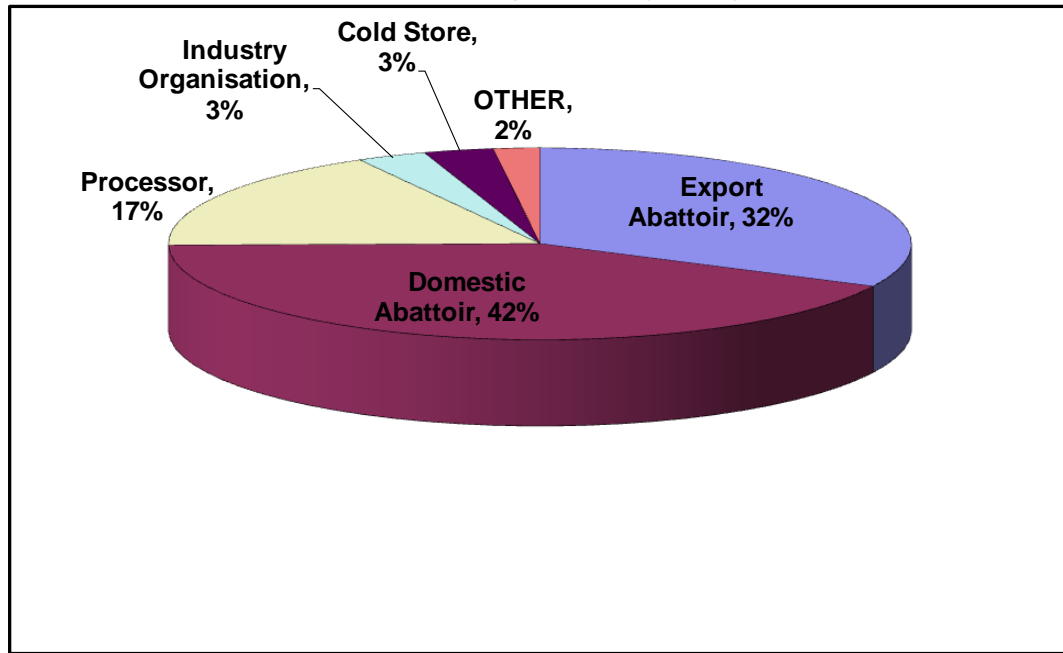
### 4.4 Respondent Demographics

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**Figure 1**  
Respondent Demographic by State  
BASE: All respondents (n = 59)

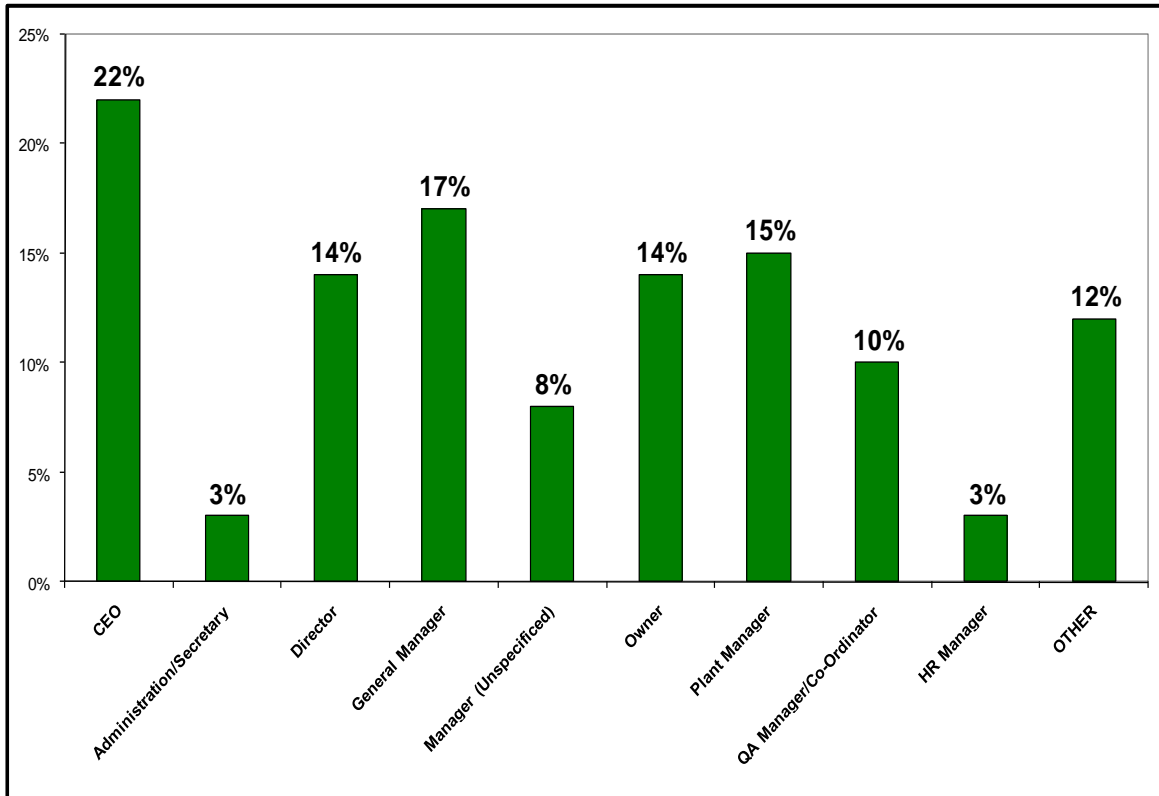


**Figure 2**  
Respondent Demographics  
by Company's Principle Operation  
BASE: All respondents (n = 59)



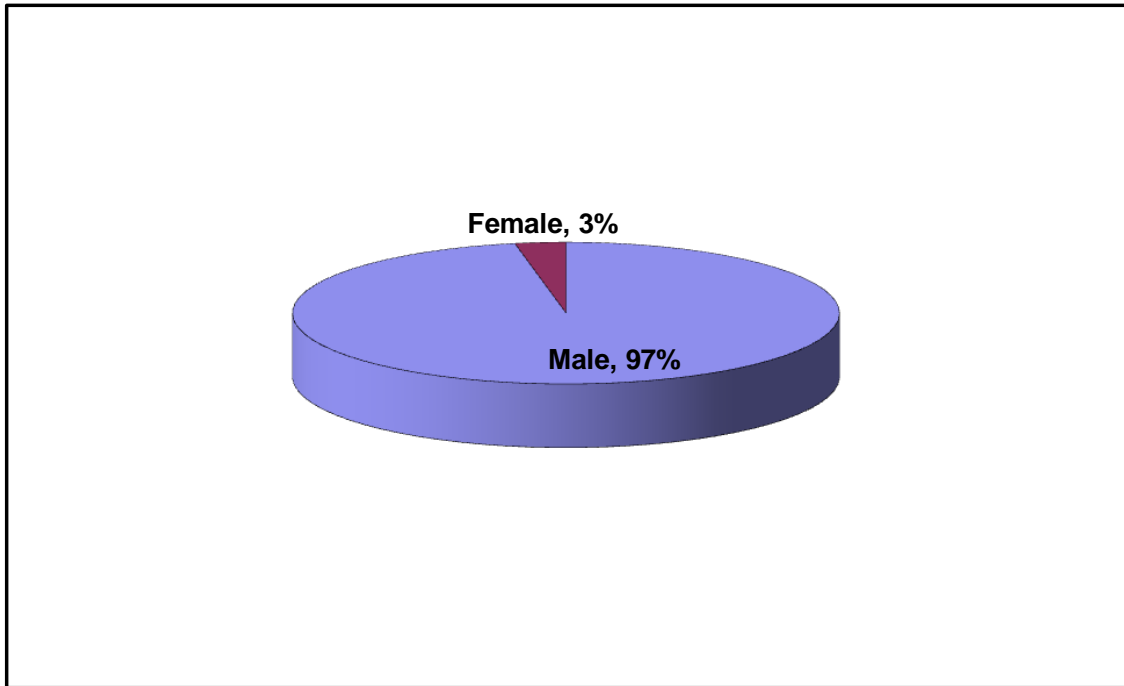
The analysis of this research sample by occupation type shows a good spread with 22% CEO's, 17% general managers, 15% plant managers, 14% owners, 14% directors, 10% QA managers and 3% HR Managers.

**Figure 3**  
Respondent Demographics  
by Role in Organisation  
BASE: All respondents (n = 59)



The bulk of respondents were male (93%).

**Figure 4**  
Respondent Demographic  
by Gender  
BASE: All respondents (*n* = 59)



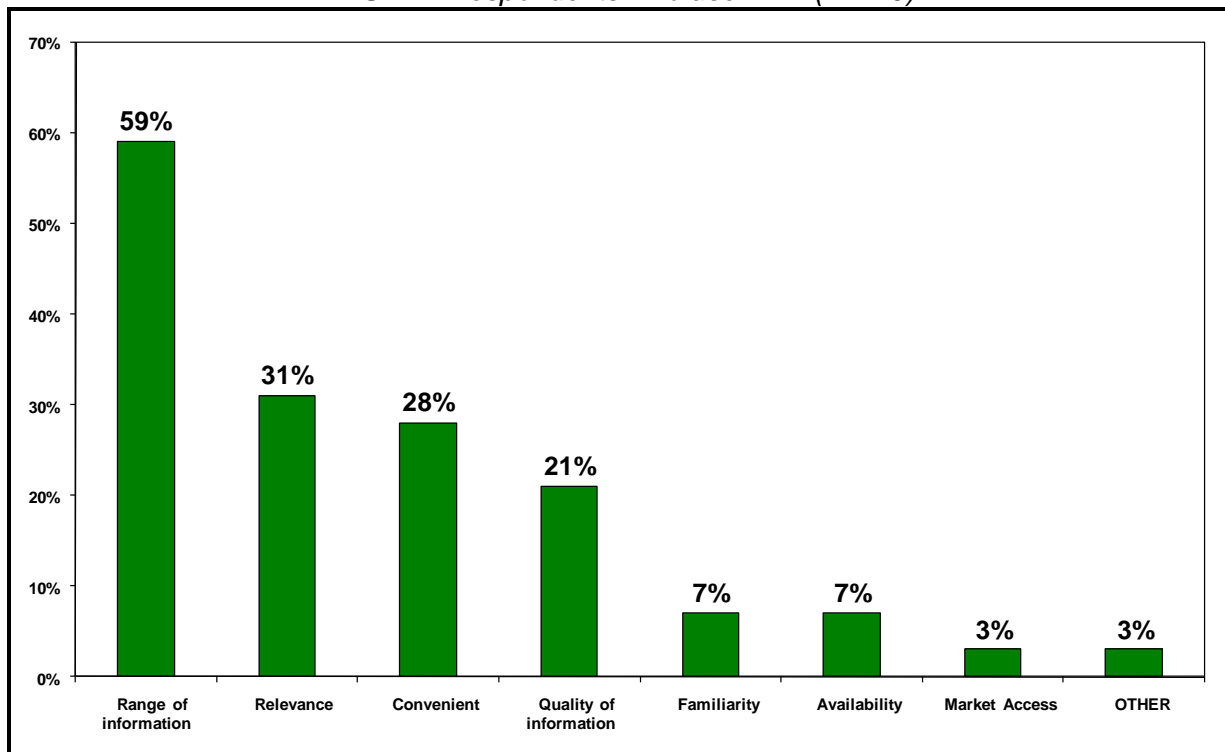
## 4.5 General Information Sources and the Decision Process

The main information sources used by people in the industry in their every day working life included; MLA (51%), AMIC (32%), AusMeat (19%), AMPC (17%), AQIS (12%) and personal networks (12%). The usage of MLA information variation by state showed quite a diverse result. Considerably more WA respondents (83%) used MLA than SA (25%) and Victoria (40%).

Of those people who did use the MLA information sources, the main reasons for doing so were;

- Range of information (59%)
- Relevance (31%)
- Convenient (28%)
- Quality of information (21%).

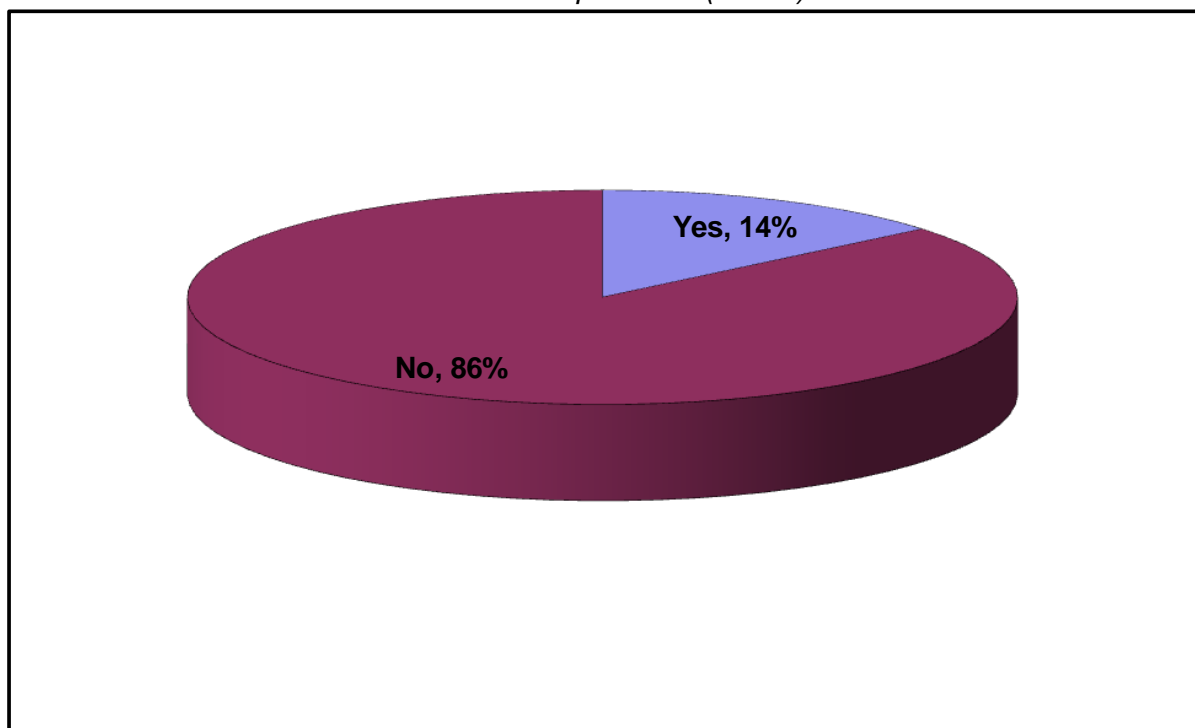
**Figure 5**  
Reasons for Using MLA  
Q5.2 'And why do you use MLA as a source of information?'  
BASE: All respondents who use MLA (n = 29)



#### 4.6 Awareness of the MIS Program

A resounding result occurred in the investigation of the awareness of the MIS program, with more than four in five respondents (86%) stating that they were unaware of the program. This left only 14% of respondents involved in this part of the research who were aware of the program. Of interest was that when respondents were asked to identify who ran the MIS program 38% thought MLA, 12% thought AMPC and 38% did not know who ran the program.

**Figure 6**  
Awareness of MIS Program  
Q6 'Prior to today, have you heard of the Meat Industry Service Program?'  
BASE: All respondents (n = 59)

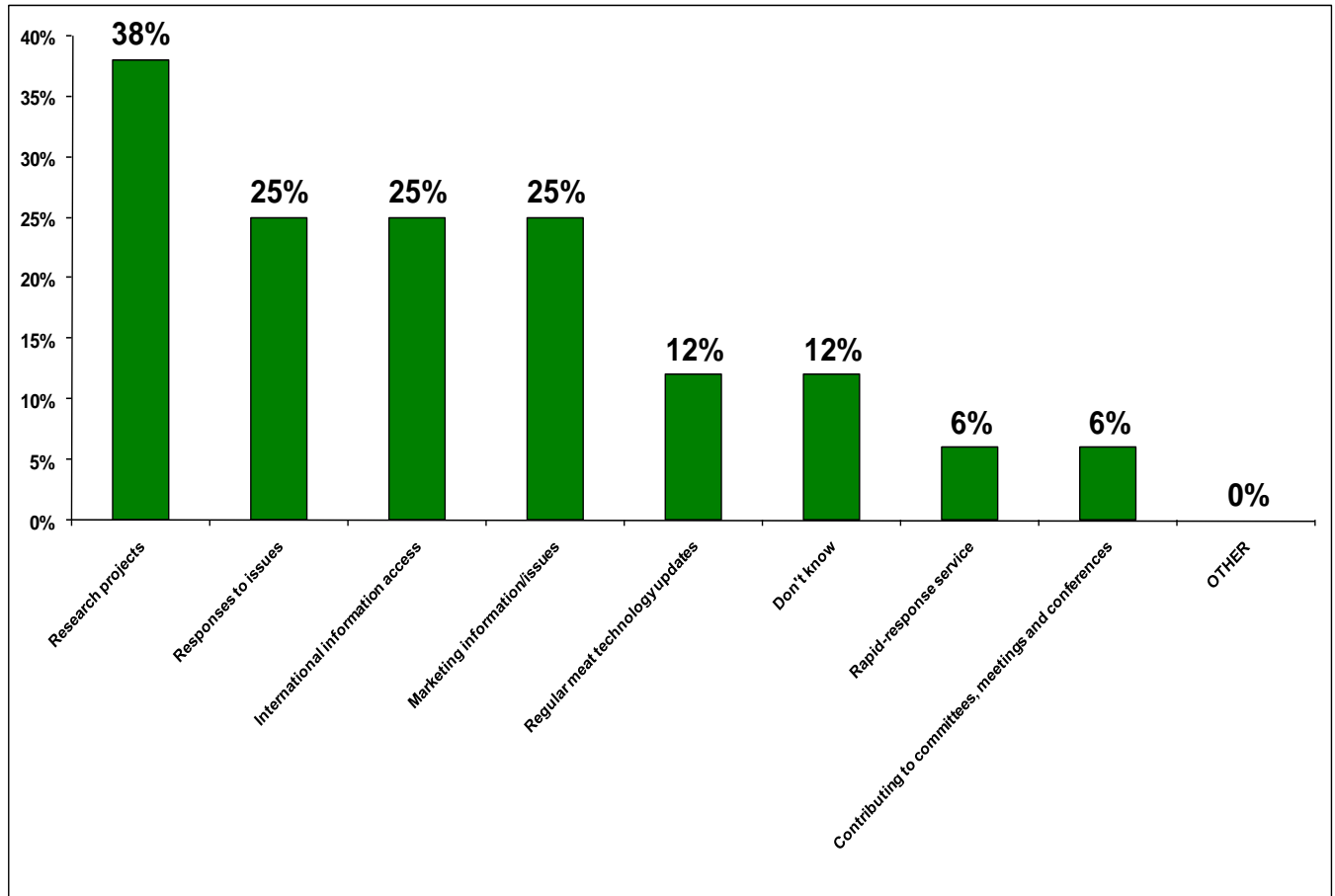


Of those who were aware of the program, the four main unprompted perceived roles of the MIS were;

- 38% - carrying out applied research and development projects for meat processors and clients;
- 25% - marketing information / issues;
- 25% - providing access to international information on meat processing and food safety including the extensive library resources of CSIRO Food and Nutritional Sciences; and
- 25% - developing effective responses and solutions to current and emerging industry issues and problems of national importance to the meat industry.



**Figure 7**  
 Understanding of Major Roles of MIS Program  
 Q9 'What do you understand the major roles of the MIS Program to be?'  
 BASE: All respondents who are aware of MIS Program (n = 16)



The prompted awareness of the roles of the MIS program had higher levels of response.

- 87% - contributing to key industry advisory committees, industry meetings and conferences;
- 80% - distributing regular meat technology updates to industry with information on the latest developments;
- 73% - providing access to international information on meat processing and food safety including access to the extensive library resources of CSIRO Food and Nutritional Sciences;
- 73% - providing a rapid response advisory service to industry and government organisations; and
- 73% - carrying out applied research and development projects for meat processors and other clients.

Total awareness (unprompted and prompted awareness) of the individual components of the MIS Program by those respondents aware of the Program is represented in Table 3.

**Table 3: Awareness of MIS Program Roles**

<b>Program Role</b>	<b>Total Awareness (n = 16)</b>
Distributing regular meat technology updates to industry with information on the latest developments	88%
Developing effective responses and solutions to current and emerging industry issues and problems of national importance to the meat industry	81%
Carrying out applied research and development projects for meat processors and other clients	100%
Contributing to key industry advisory committees, industry meetings and conferences	88%
Providing access to international information on meat processing and food safety including access to the extensive library resources of CSIRO Food and Nutritional Sciences	88%
Providing a rapid-response advisory service to industry and government organisations	75%

#### 4.7 Importance of the MIS Program

Even though the number of respondents answering this question was not large, the results are still conclusive. Overall, there was a strong endorsement for the importance of the MIS program attributes.

The majority rated these MIS program attributes affirmatively with the lowest level of total affirmation being 81%. All of those who answered this question (100%) rated the importance of the MIS activity of “providing a rapid-response advisory service to industry and government organisations”.

**Table 4:** Importance of MIS Program

<b>MIS Program Importance</b>	<b>Total Importance</b>
Developing effective responses and solutions to current and emerging industry issues and problems of national importance to the meat industry	93%
Carrying out applied research and development projects for meat processors and other clients	81%
Providing a rapid-response advisory service to industry and government organisations	100%
Contributing to key industry advisory committees, industry meetings and conferences	86%
Distributing regular meat technology updates to industry with information on the latest developments	86%
Providing access to international information on meat processing and food safety including the extensive library resources of CSIRO Food and Nutritional Sciences	86%

#### 4.8 Usage of the MIS Program

It was interesting to compare the importance MIS attribute evaluation with the actual usage. It appears that usage of MIS program attributes does not necessarily reflect the perceived importance of the attributes. The attribute that received the highest importance rating actually received the lowest level of usage (100% of 31%).

Close to one in five (19%) stated that they never used any of the MIS program attributes.

**Table 5: MIS Program Usage**

<b>MIS Program Usage</b>	<b>Total Usage</b>
Developing effective responses and solutions to current and emerging industry issues and problems of national importance to the meat industry	62%
Carrying out applied research and development projects for meat processors and other clients	44%
Providing a rapid-response advisory service to industry and government organisations	31%
Contributing to key industry advisory committees, industry meetings and conferences	38%
Distributing regular meat technology updates to industry with information on the latest developments	44%
Providing access to international information on meat processing and food safety including the extensive library resources of CSIRO Food and Nutritional Sciences	38%

Even though a small number answered this question, it became clear that a reasonable proportion (40%) had not used the MIS program service, *“Developing effectively responses and solutions to current and emerging industry issues and problems of national importance to the meat industry”*. Of those who had used this service, the average number of times it was used was 13 per year.

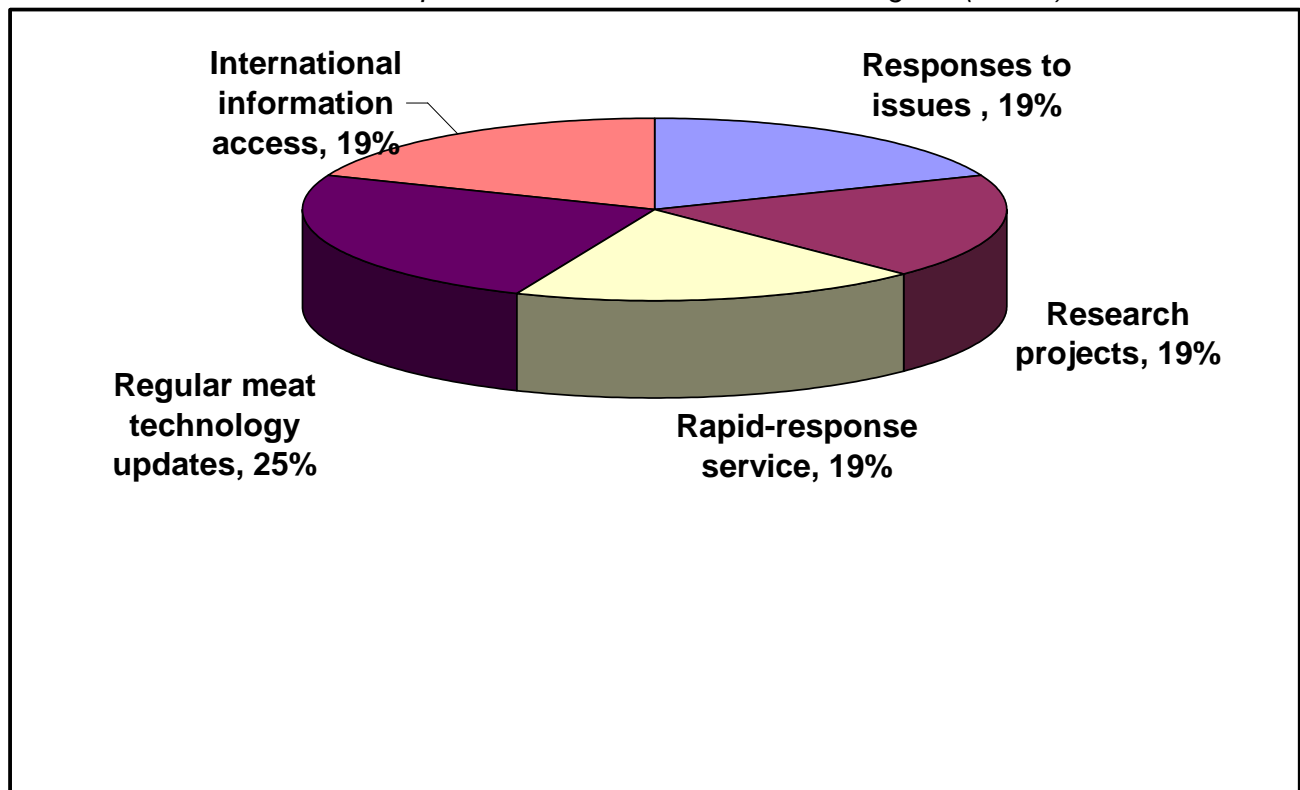
## 4.9 Understanding of the Roles of the MIS Program

This research investigated respondents' perceptions of the primary function of the MIS program. There was a significant spread of perceptions on this issue. The spread of responses to the primary functions of the MIS program indicates that people have a broad perspective on what the program should achieve. Only one of the potential functions received no support, "Contributing to key industry advisory committees, industry meetings and conferences".

### 4.9.1 Primary Function of the MIS Program

The most supported primary function of the MIS program was; "Distributing regular meat technology updates to industry with information on the latest developments" (25%) followed by four more variables each receiving support from one in five respondents (19%).

**Figure 8**  
 Primary Function of the MIS Program  
 Q16 'Which of the following roles do you see as the primary function of the MIS Program?'  
 BASE: All respondents who are aware of MIS Program (n = 16)



#### 4.9.2 Least Important Function of the MIS Program

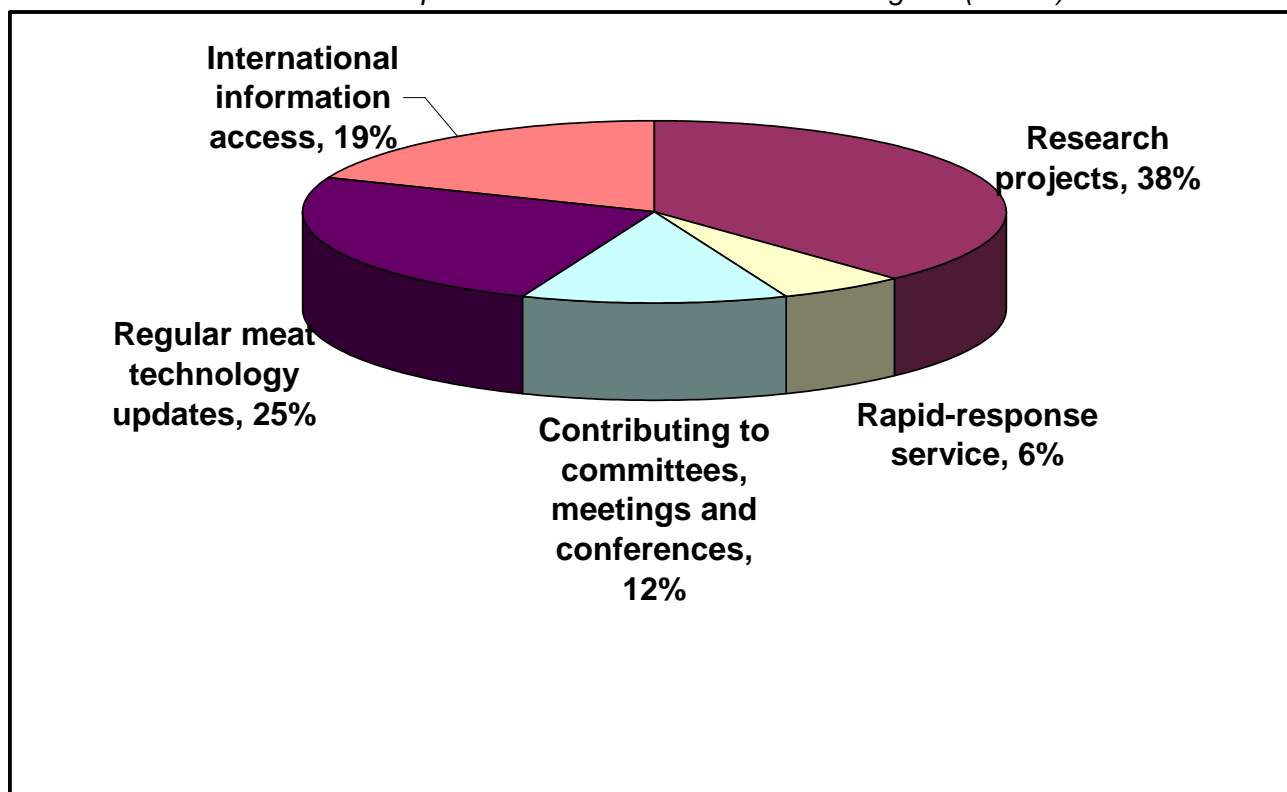
This research investigated the contrary perspective from the previous question whereby respondents were asked to identify the least important function of the MIS program. The result indicated that there was no inverse correlation to the most important function. Respondents identified the least important function of the MIS program to be: “*Carrying out applied research and development projects for meat processors and other clients*” (38%) followed by; “*Distributing regular meat technology updates to industry with information on the latest developments*” (25%) and “*Providing access to international information on meat processing and food safety including the extensive library resources of CSIRO Food and Nutritional Sciences*” (19%).

**Figure 9**

Least Important Function of the MIS Program

Q18 ‘Which of the following roles do you see as the least important function of the MIS Program?’

BASE: All respondents who are aware of MIS Program (n = 16)



#### 4.10 Importance of and Satisfaction with the MIS Program

The service evaluation of the MIS program indicated some high levels of service importance.

**Table 6: MIS Program Service Importance**

<b>MIS Service Importance</b>	<b>Total Importance</b>
Developing effective responses and solutions to current and emerging industry issues and problems of national importance to the meat industry	93%
Carrying out applied research and development projects for meat processors and other clients	86%
Providing a rapid-response advisory service to industry and government organisations	92%
Contributing to key industry advisory committees, industry meetings and conferences	71%
Distributing regular meat technology updates to industry with information on the latest developments	92%
Providing access to international information on meat processing and food safety including the extensive library resources of CSIRO Food and Nutritional Sciences	93%

*An evaluation of the overall satisfaction of the MIS program was undertaken and overall there were reasonably high levels of total satisfaction (75%) with around one in ten expressing dissatisfaction (12%) with the service.*

**Table 7: MIS Program Satisfaction**

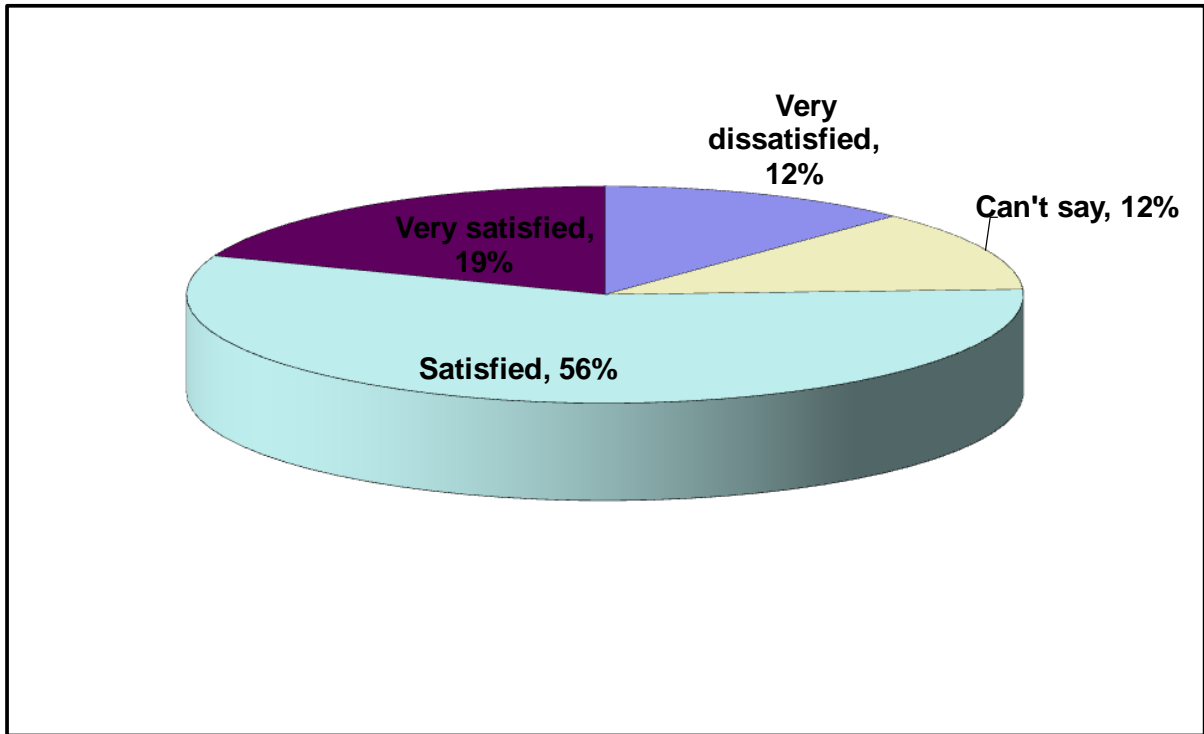
<b>MIS Program Satisfaction</b>	<b>Total Satisfaction</b>
Usefulness of Information	72%
Timeliness	71%
Range of Topics	79%
Ease of Access	71%
Flexibility in delivery	71%
Cost	35%

**Figure 10**

Overall Satisfaction of MIS Program

Q22 'Now thinking about your overall experience with the MIS Program would you say you would be...?'

BASE: All respondents who are aware of MIS Program (n = 16)





#### 4.11 Credibility of the MIS Program

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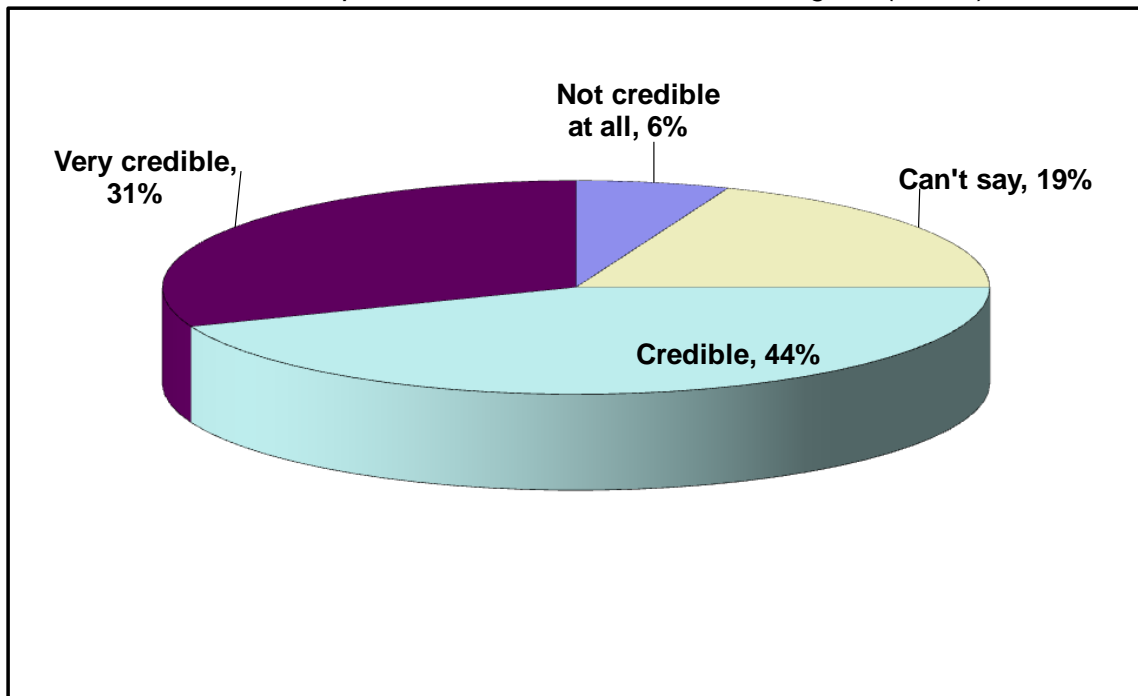
The credibility of the information provided by the MIS program was evaluated and around three quarters (74%) of those who responded to this question considered the information to be credible.

**Figure 11**

Overall Credibility of MIS Program

Q24 'Now thinking about your overall experience with the MIS Program, how credible would you say the information provided is? Would you say it is...?'

BASE: All respondents who are aware of MIS Program (n = 16)



## 4.12 Barriers to Service Adoption

### Other information Sources

The potential uptake of the MIS program may have been influenced by respondents using other information sources in their day to day jobs. Respondents were asked to identify if there was any overlap in the information provided by the MIS program and other information sources. More than three in five (69%) thought there was an overlap. In terms of identifying what the subject matter where there was a perceived overlap, applied research (77%) and international information (77%) were the areas considered to most overlap with other information sources. Overall, there was a reasonably high level of respondent consideration of information overlap.

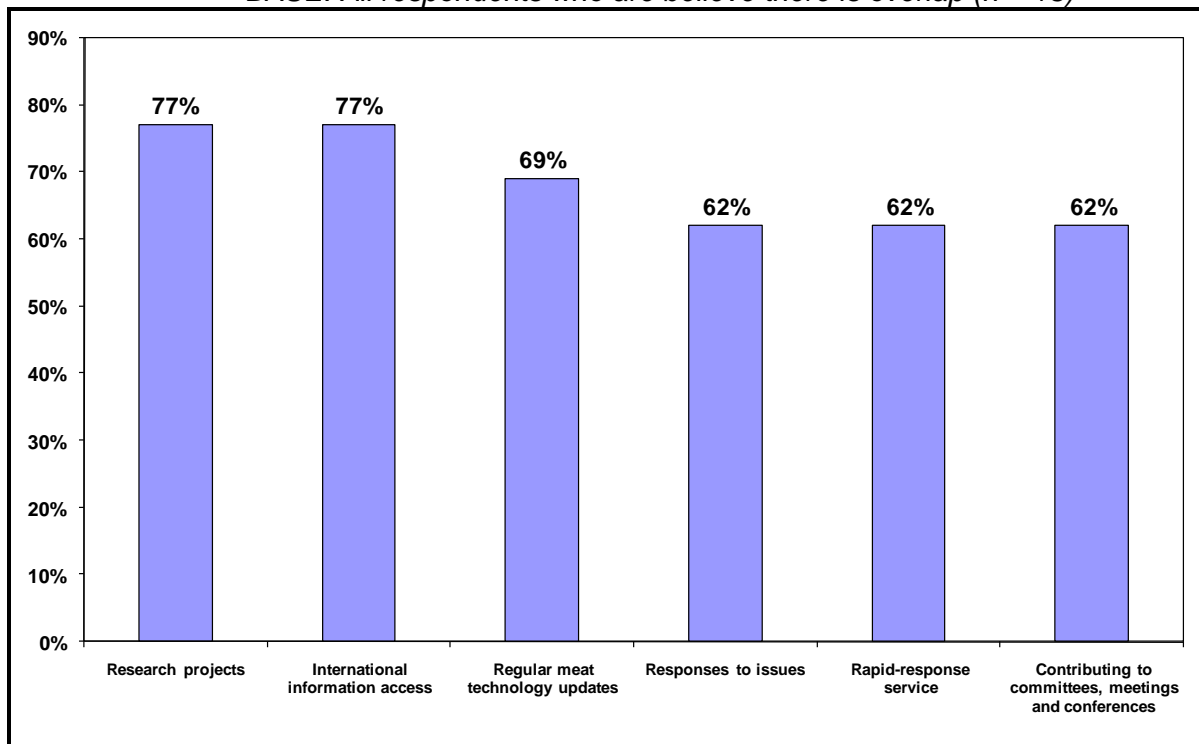
The real issue with the information overlap is based on whether this is a problem or not for those in the industry. An encouraging result to come out of this research was that no one said this was a problem, while 58% said the information overlap was “Good”, the remaining 42% said they “Did not know”. Those respondents who said the information overlap was good said that it resulted in authoritative and comprehensive information (86%), and that it helped keep abreast of current information” (29%).

**Figure 12**

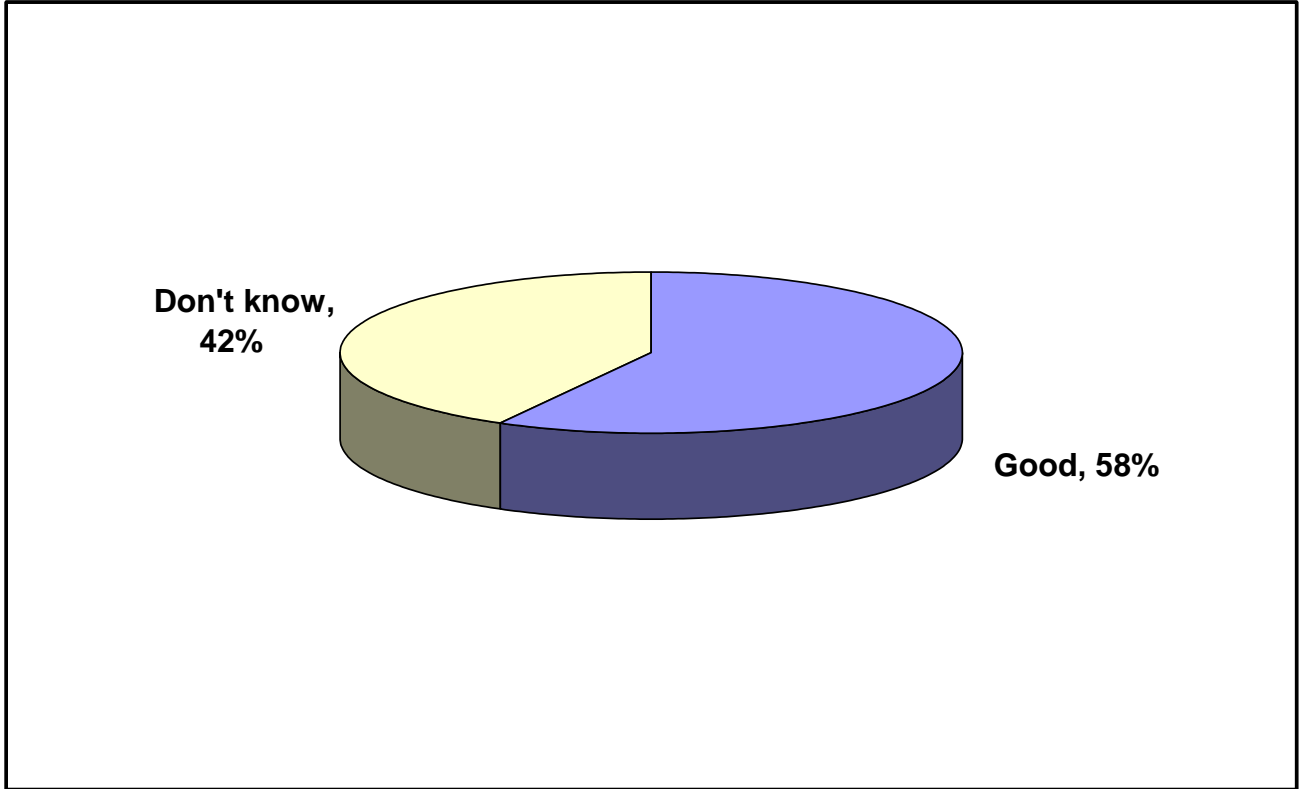
Functions of MIS Program Believed to Overlap with Other programs

Q30 'And which functions of the MIS Program do you believe have overlap with other programs and information sources?'

BASE: All respondents who are believe there is overlap (n = 13)



**Figure 13**  
Assessment of Overlap with Other programs  
Q31 'Do you believe that this overlap in information is good or bad?'  
BASE: Respondents who are believe there is overlap (n = 12)

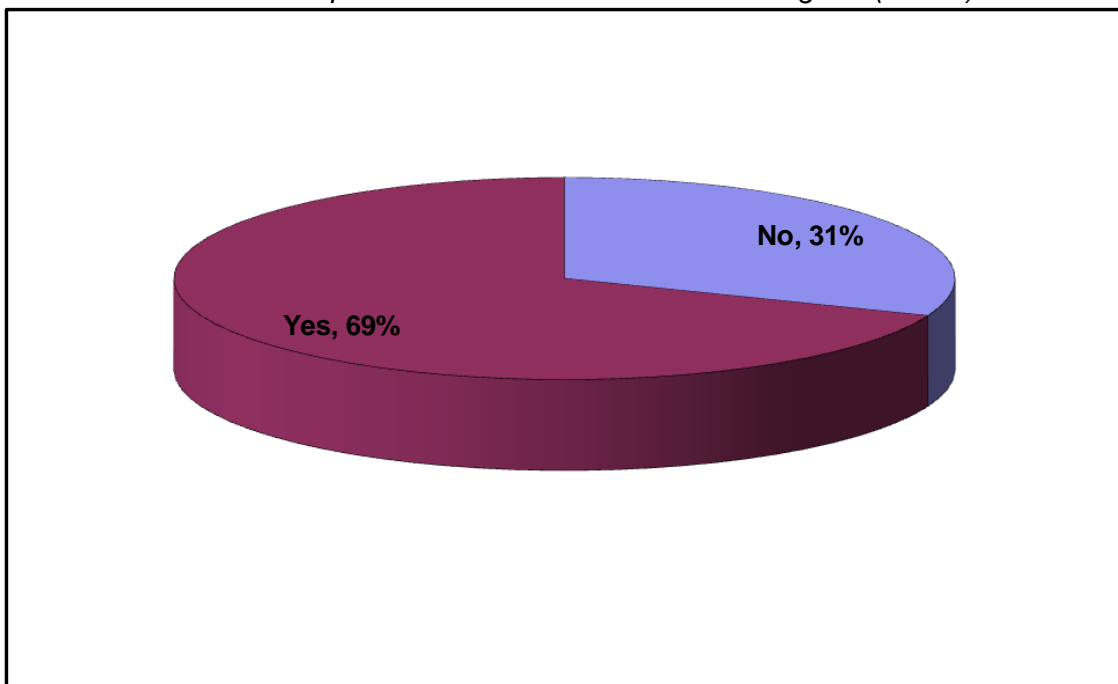


### 4.13 Suggested Changes to the MIS Program

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The question of the future role of the MIS program was presented to respondents for their evaluation and the majority (69%) thought the role would change. The main ways that those within the industry saw the MIS program changing was general improvement and keeping abreast of industry changes (36%), potentially fulfilling an alternative role (36%), and alternative deliveries (9%). The reasons that respondents thought the MIS would change was based on the premise of the need to keep abreast of current information (64%) and acknowledging the changes evident in new market directions.

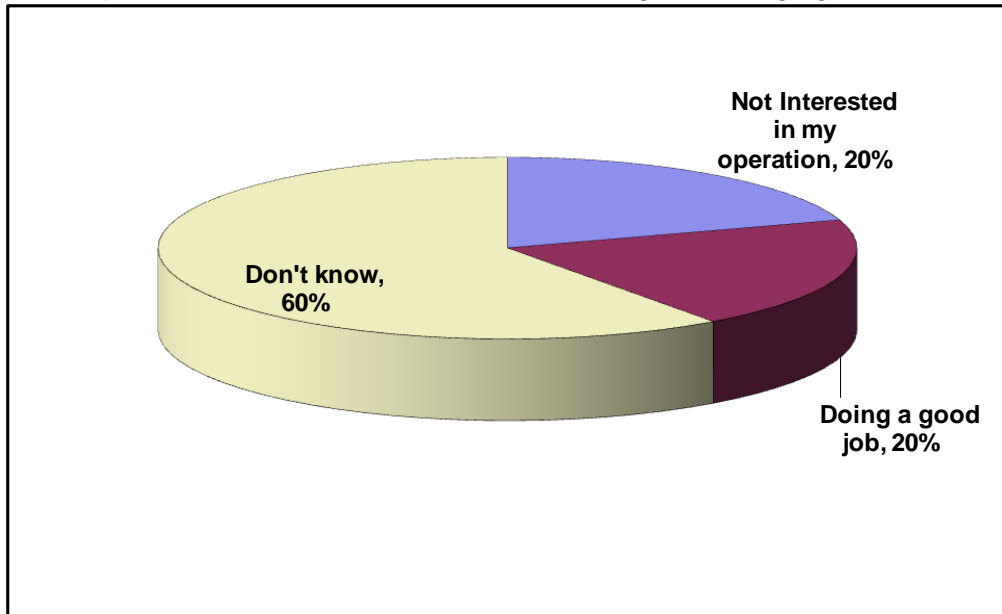
**Figure 14**  
Future Changing Role of the MIS Program  
Q34 'Do you see the role of the MIS Program changing in the future?'  
BASE: All respondents who are aware of MIS Program (n = 16)



**Figure 15**

Reasons Why the Role of the MIS Program Will Not Change in the Future  
Q35 'Why not?'

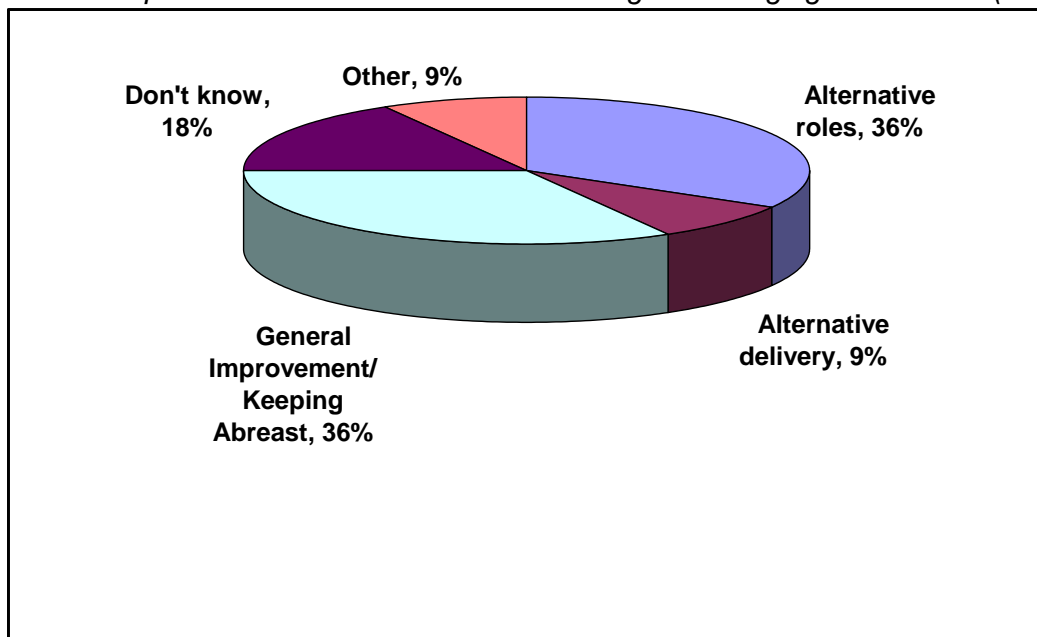
BASE: All respondents who do not see role of MIS Program changing in the future (n = 5)



**Figure 16**

Ways in Which the Role of the MIS Program Will Change in the Future  
Q36 'In what ways do you see the MIS Program changing in the future?'

BASE: All respondents who do see role of MIS Program changing in the future (n = 11)



#### 4.14 Information Update and Subscription

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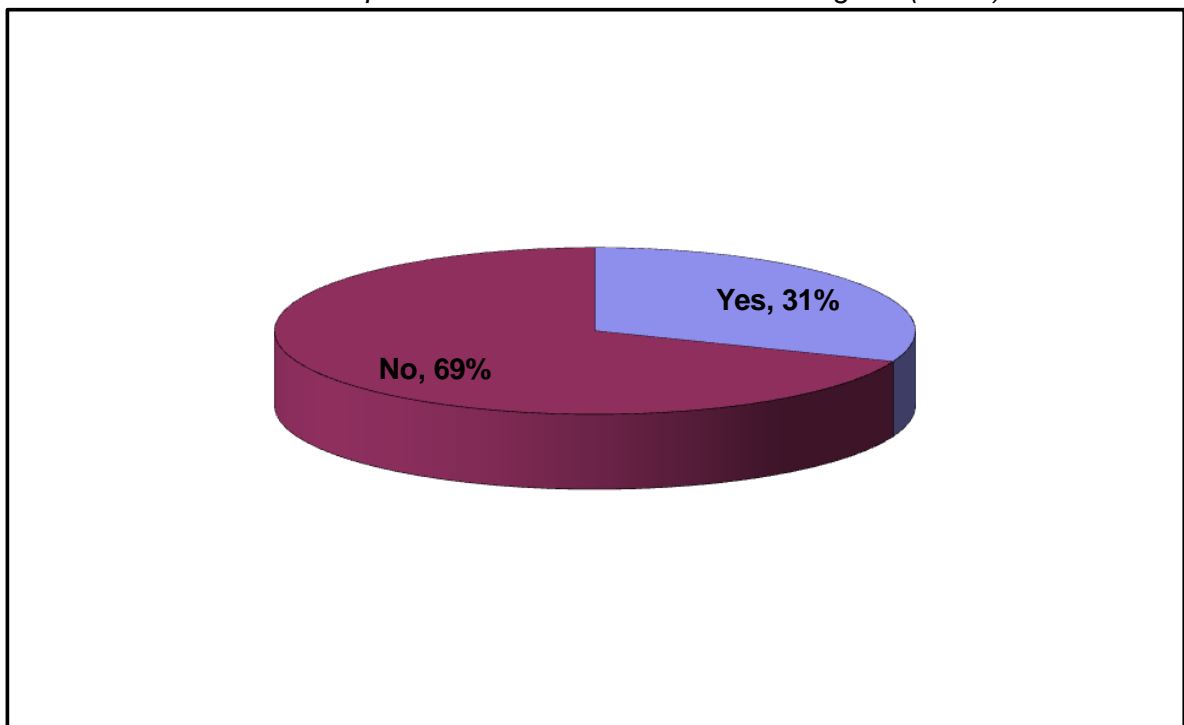
The distribution of the Meat Technology Updates and the What's New newsletter was investigated to see if those in the industry would prefer receiving the information by email or post. Close to a third (31%) stated they would prefer to receive the information by email rather than post. Those who wanted to receive the information by email stated that it was because it was more convenient (100%) and they would be able to email the information around the company (20%).

**Figure 17**

Preference of Information by Email

Q38 'Would you prefer to receive the Meat Technology Updates and the What's New newsletter by email rather than by post?'

BASE: All respondents who are aware of MIS Program (n =16)



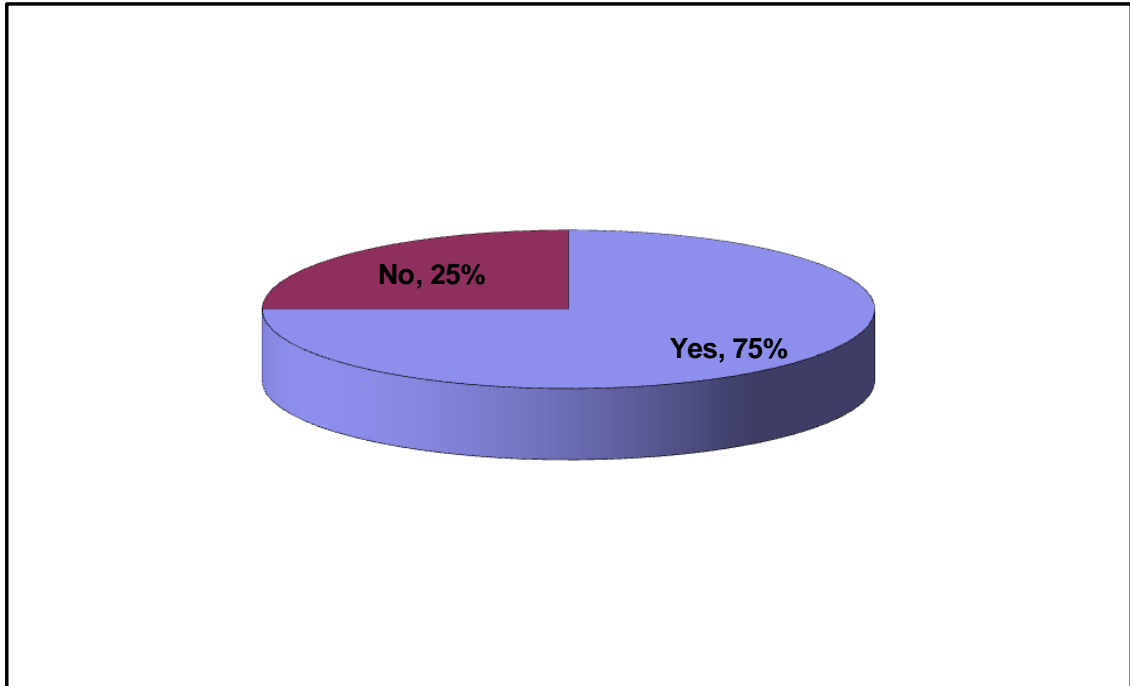
Those who used the MIS program were asked how they felt about being charged for the service. Three quarters (75%) were prepared to pay; conversely 25% did not want to pay for the service. Those who did not want to pay for the service stated this was because a charge was not warranted or necessary.

**Figure 18**

Willingness to Pay for the MIS Program

Q40 'Now thinking about the service provided by the MIS Program, and other services available to you, would you be prepared to pay for the MIS Program, either as an annual subscription, or an on-needs basis?'

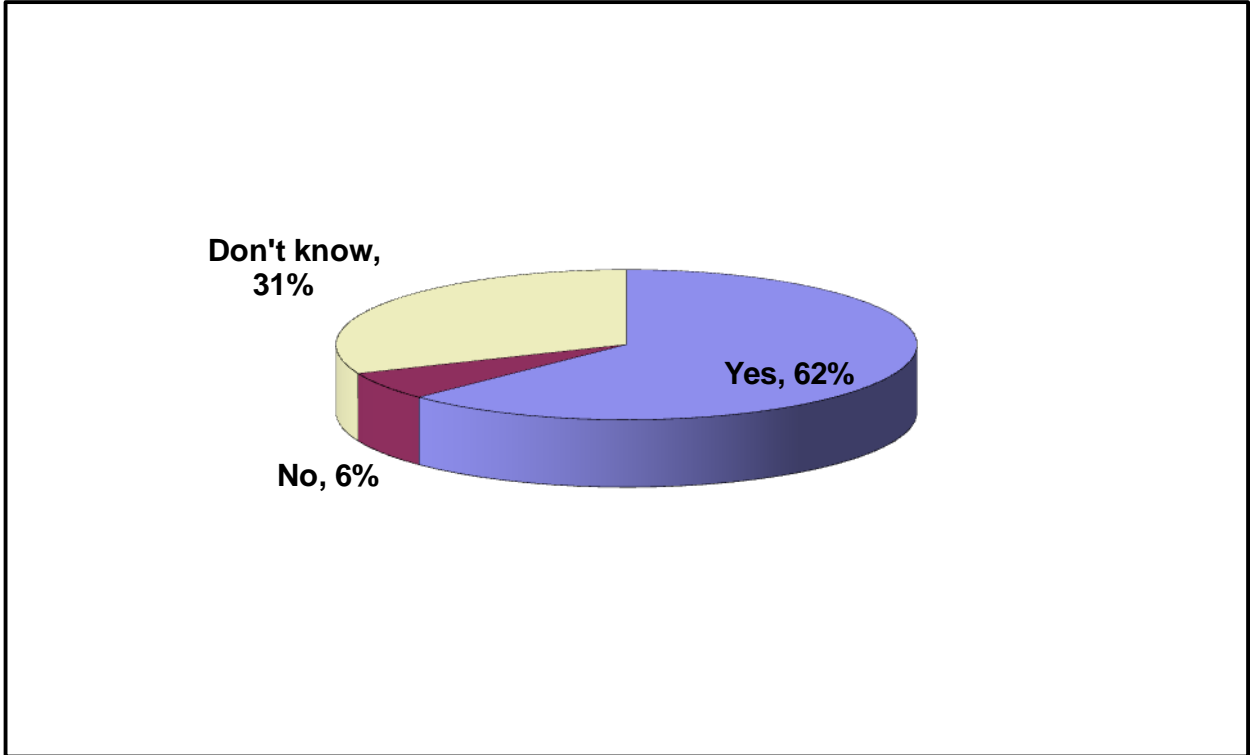
BASE: All respondents who are aware of MIS Program (n =16)



It was important to gauge the perceptions of the perceived value of the MIS program, in particular, if a charge was applied, how much would people be prepared to pay annually for the service. The majority of respondents (88%) did not know how much they were prepared to pay, while 6% said \$200 and 6% said \$300.

It was important to determine if current users of the MIS program would continue if they had to pay for the service. Consequently, two in five MIS users (62%) stated they would continue to use the MIS program if they had to pay for the service. A relatively small proportion (6%) stated they would not use the service, while close to a third (31%) were unsure.

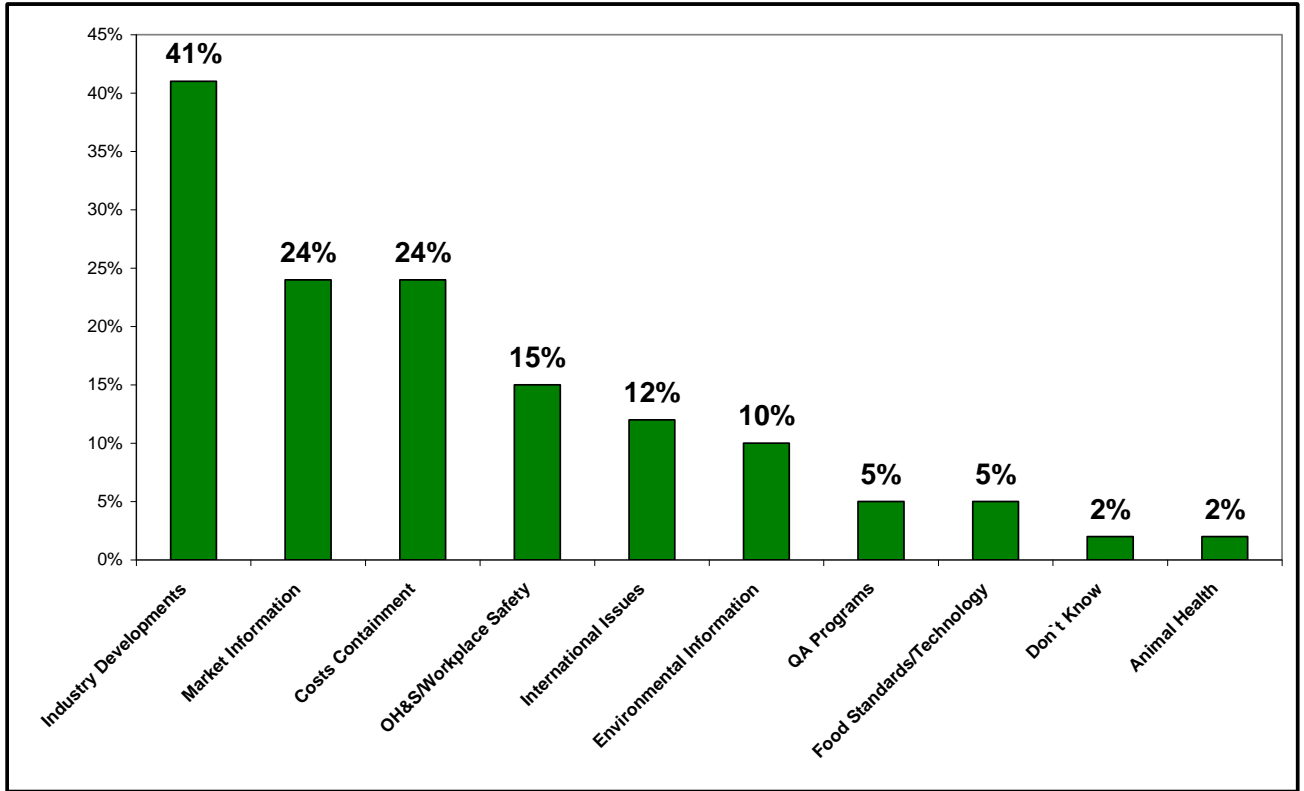
**Figure 19**  
Continued Usage of MIS Program if Had to Pay for it  
Q43 'Would you continue to use the MIS Program if you had to pay for it?'  
BASE: All respondents who are aware of MIS Program (n =16)



In order to be able to offer relevant information to MIS users, this research investigated what future information requirements respondents had in their current role. The most requested information type was the need to keep abreast of industry innovations and developments (41%) followed by relevant market information (24%). One of the noteworthy results to emerge is that a quarter of MIS users (24%) did not know what their future information requirements were. Other topics that were identified as future information requirements were; OH&S workplace safety (15%), environmental information (12%), international overseas issues (10%), QA programs (5%) and food standards technology (5%).



**Figure 20**  
Future Information Requirements  
Q44 'What do you believe will be your future information requirements in your role?'  
BASE: All respondents (n = 59)



## **5 Industry Outcomes**

### **5.1 Impact on Meat and Livestock Industry**

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The results of this project have provided MLA, AMPC and CFNS with a snapshot of current awareness and uptake of the MIS Program. It also highlights potential areas for consideration in terms of stakeholder's willingness to pay for the services provided by the MIS program. This information will assist the MLA, AMPC and CFNS to make more informed policy decisions regarding the MIS program and allow more detailed consideration of next steps in terms of research investment strategies.

While the MIS program has been available to the industry for several decades, in light of staff turnover, the organisations that manage the MIS program need to consider further promotion of the program to the industry to raise awareness. Questions were raised from this research that if the promotion of the MIS program has not been prioritised because the program has been running for so long that it is subconsciously considered to be part of the collective awareness of industry. This is particularly the case with staff/personnel changes within the processors, as a new person may not know of the MIS program, where their predecessor did.

It appears pertinent to do a bit more promotion of the electronic delivery of newsletter service as it has been available for a year or more, but has had a low uptake with only about 30 people signed up for it.

This research project has provided the meat and livestock industry with a benchmark which could be used to gauge the effectiveness of any new technologies that may be developed and made commercially available to the industry in the future.