

## Importance of Iron and Omega-3 Fatty Acids to Lamb Consumers

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The recommended dietary intake (RDI) of iron for women over 50 and men is 8 mg/d, but for younger women the RDI is 18 mg/d (NHMRC 2006). Lean red meats, including lamb are an excellent source of iron and a source of long-chain omega-3 polyunsaturated fats (Williams 2007) and the indications are that most Australians need to increase their intake of long-chain omega-3 polyunsaturated fatty acids (omega-3) so as to reduce the risk of chronic disease (Pethick *et al* 2009). Although these guidelines have been established, the question remains as to whether consumers of lamb consider these nutritional traits important? This question was addressed as part of a study to establish consumer thresholds for the colour of lamb meat.

A survey of 541 consumers was conducted in 2 cities, Canberra (CAN) and Dubbo (DUB), over a number of consecutive days. The survey section relevant to this paper established respondent gender, age range, did they consume lamb, and if they did how many times per week, as well as did they purchase lamb. Consumers were also asked if they considered iron and omega 3s an important part of their diet. In CAN 277 people were surveyed and 264 in DUB. Of the respondents 505 were lamb consumers and 466 purchased lamb, 299 were women and 242 men. Table 1 shows the proportion of consumers in each city that replied either No, Yes or gave no response to the questions about the importance of iron and omega 3s.

**Table 1. Distribution of consumer responses to the question about the importance of iron and/or omega 3s**

	Iron		Omega-3	
	CAN	DUB	CAN	DUB
Total (n)	273	264	273	264
Yes (%)	70.3	65.2	65.6	58.3
No (%)	24.2	30.3	28.9	36.7
NR (%)	5.5	4.5	5.5	4.9

NR = No Response

To test if any of the factors city, gender, age class, the number of times lamb is consumed per week, whether the respondent was a lamb consumer and a purchaser of lamb were correlated to the response for either iron or omega 3s, a separate analysis was performed for each response. Logistic regression (excluding non-responders) determined the relationship between perceived consumer importance of omega-3 (Yes or No) and demographic and lamb consumption variables using ASReml (Gilmour *et al.* 2006). For both iron and omega 3s, men were less likely to consider either trait important ( $P < 0.05$ ). If the respondent purchased lamb the traits were more important ( $P < 0.05$ ) and importance declined as consumption per week increased ( $P < 0.05$ ). In addition for omega 3s the age of the respondent was important ( $P < 0.05$ ). Respondents over 50 and those under 20 were more likely to answer yes, whereas those in the 20-40 age grouping considered omega 3s less important.

The older population may be more aware of the importance of omega 3s to their health, and the younger generation more aware of omega 3s because of effective advertising and smarter marketing. More needs to be done to increase the awareness and importance of omega 3s with lamb as a source to the 20 to 40 age group.

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