

Understanding consumer markets for sorghum for human consumption

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Take home message

Opportunities exist for higher value markets for Australian grain sorghum. While trading sorghum for the Chinese baijiu industry is currently challenging, growers would benefit from keeping up with developments in this potentially more lucrative market for grain sorghum. In the local market, sorghum has the potential to meet the needs of consumers for its health properties and for its gluten free status. Growers could benefit from following developments in this market and establish relationships with food manufacturers.

In Australia, sorghum is used mainly as animal fodder but there may be opportunities for expanding into higher value markets, both internationally and locally. Researchers at Charles Sturt University Graham Centre for Agricultural Innovation are investigating these markets, as part of the *Expanding options for sorghum: food and distilling* project funded by GRDC. The approach we take is focussed on consumer behaviours, attitudes and characteristics and we examine not just the size of these markets, but also why sorghum is valued, and whether sorghum from Australia would be acceptable to consumers. We focus on consumers because this information may help inform whether investing in entering existing markets, or activating markets is worthwhile. The research reported here focusses on one major international market, China, and also discusses potential within the local market.

In China, sorghum is the primary grain used in a popular traditional alcoholic spirit called baijiu. Baijiu is the most consumed spirit in the world and production of baijiu in China currently exceeds 12 million metric tonnes annually. China is not able to grow nearly enough sorghum to meet its requirements for this rapidly expanding industry and the Chinese baijiu market represents an enormous opportunity for Australian sorghum producers. In a preliminary phase of the research we interviewed baijiu producers about their knowledge about Australian sorghum. This research concluded that there may be opportunities for Australian sorghum in the short term, but that there was some ambiguity about consumer acceptance of Australian sorghum. To be sure that Australia would be positioned above any competitors that could produce below-premium grain cheaply, we conducted further testing with consumers to determine if Australian sorghum could be successfully marketed as a key ingredient of baijiu produced in China. A follow up survey with 2000 Chinese adults found that baijiu is frequently consumed; and that a majority of people thought it was healthy and that tradition dictated that they drink it. These beliefs were linked to consumption: people who thought that baijiu was healthy consumed more, as did people who drank it because of its traditional importance. We also found a high level of consumer acceptance of Australian sorghum in the production of baijiu, with the majority of consumers prepared to accept some proportion of Australian sorghum.

In Australia, the picture is very different. Sorghum is not a traditional part human diets, and we believe that there is very little consumer awareness about sorghum. For this reason, instead of conducting a survey on sorghum, we ran a series of focus groups to explore potential ways to

encourage consumer interest in sorghum-based products. The gluten-free market in Australia is projected to grow significantly over the next five years. More generally, health is currently the biggest consumer food trend, and there is an emphasis on nutrient content and foods that can help manage and prevent illness. Sorghum is well-placed to meet the needs of consumers who are looking for gluten-free alternatives, and/or a range of health benefits. We used our data to construct three consumer archetypes, and then designed some potential products that might meet the needs of these consumers, including in relation to health.

In summary, our research suggests that there is (at least) one large international market for Australian grain sorghum. While there may be issues with trade relations and other barriers, *from a consumer perspective* this market has two very attractive characteristics. First, baijiu is linked to health and tradition. This means that people are unlikely to stop consuming it abruptly. Second, Australian sorghum would be acceptable to most consumers. In the Australian context, we could say that the consumer market is not yet activated. Sorghum is not linked to tradition, and most people have probably not even heard of it. However, it may be possible to market sorghum based on some of its health properties, and its gluten-free status.

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