WHEAT ENDUSER REQUIREMENTS FOR DOMESTIC MILLERS AND THE FOOD INDUSTRY
HOW WELL IS AUSTRALIAN WHEAT DELVERING?

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PRESENTATION TOPICS

- Domestic Wheat and Flour usage

- Wheat Quality requirements, Value and procurement for :
  - Bread bakers, Biscuit, Pasta and Breakfast Cereals

- Cereal Product Trends

- Key Messages and Challenges for the Wheat supply Chain

DOMESTIC WHEAT DEMAND

Estimated total annual demand

•Feed Usage	2.9* million tonnes
•Flour Milling	2.6 million tonnes
•Seed Wheat	0.56 million tonnes
Total Domestic Demand	**6.1 million tonnes**
•Biofuels (2014)	Est.1.0 million tonnes

Usage of 20 million tonne crop is 30%

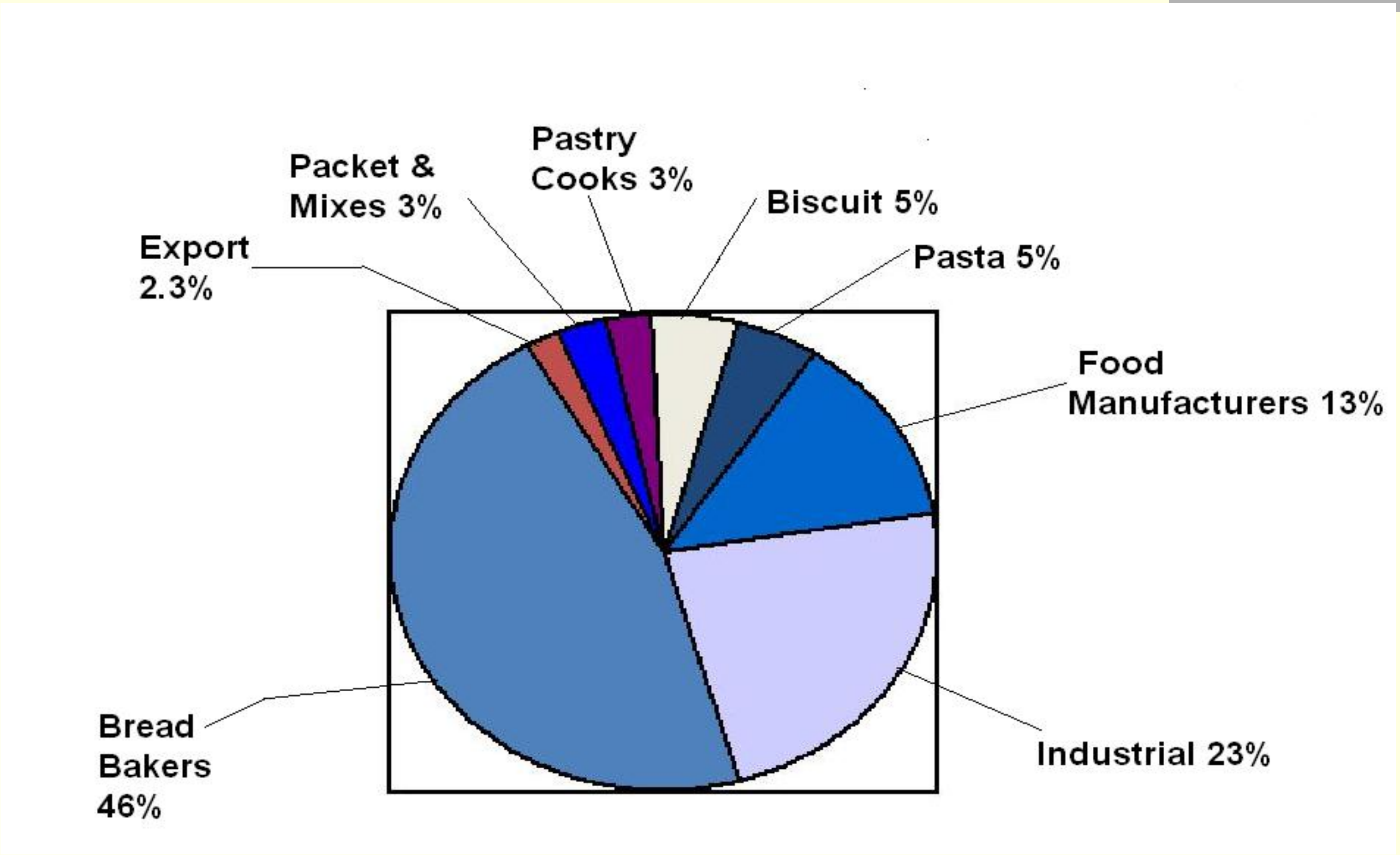
Usage of 9 million tonne crop is 68%

* 2.2 – 4.1 excl imports (ABARE 02/03 – 07/08f)

AUSTRALIAN WHEAT & FLOUR USAGE

- Wheat Requirement 2.6m tonnes
- Annual Flour Production 2.1m tonnes
- Domestic milling and cereal industry is the largest single customer of the Australian wheat supply chain

FLOUR USAGE IN AUSTRALIA



DOMESTIC QUALITY REQUIREMENTS

- Domestic food manufacturers (DFM) use all grades of Australian wheat
- DFM together with Millers have a Preferred Varieties portfolio within the current wheat Grades
- Domestic Preferred varieties have special quality traits sought by the DFM.
- Domestic market is looking to working closely with Wheat Quality Australia to address the variety and class aspect of these issues
- DM wants more transparency of the varietal mix at receival sites and access to these wheats
- In some instances DM see significant value for end users through use of single varieties and this is a growing trend.

DOMESTIC QUALITY REQUIREMENTS

•Millers are looking to add value through Quality Differentiation of Wheat

•Ready access to Harvest Crop Quality Information outside the ES for the Domestic Industry as well as for partner and independent O/S food manufacturers is a key issue since AWB ceased providing this information

•Quality Assurance of Wheat – Safety and Quality – Varietal & Parcel integrity – without contamination from toxins, pesticides, insects – supply chain records at every level

•Outturn Standards should not be less than GTA standards.

WHEAT PROCUREMENT

•By Mills or by end users for toll milling

•Quality is targeted for end users specifications and to meet processing requirements

•Mills and Endusers expect suppliers to meet their Specifications on Delivery – often this is not the case

•Some Endusers have a suite of Preferred Varieties which may not be satisfied within existing Wheat Grades

•The drive for Commodity/Efficiency and Consolidation by the BHAs is at odds with domestic markets looking for differentiation and value added products.

• Domestic Millers are often forced to purchase off Farm and Private Storage – Encouragement for On Farm Storage in some cases

WHEAT PROCUREMENT

Examples include :

•Closing of many country silos in some regions – reduces opportunity to target Preferred Varieties (PV)

•BHAs who receive wheat parcels purchased by Millers but what is outturned to the Customer frequently comes from a different location. Hence IP and Traceability is lost as well as the Preferred Variety mix

•A mill that is adjacent to a silo with a Preferred Varietal mix but wheat is delivered from another remote silo with a high proportion of non PVs

•Some regions - Millers and Endusers can only purchase what they are given and have little say in the region of varietal mix

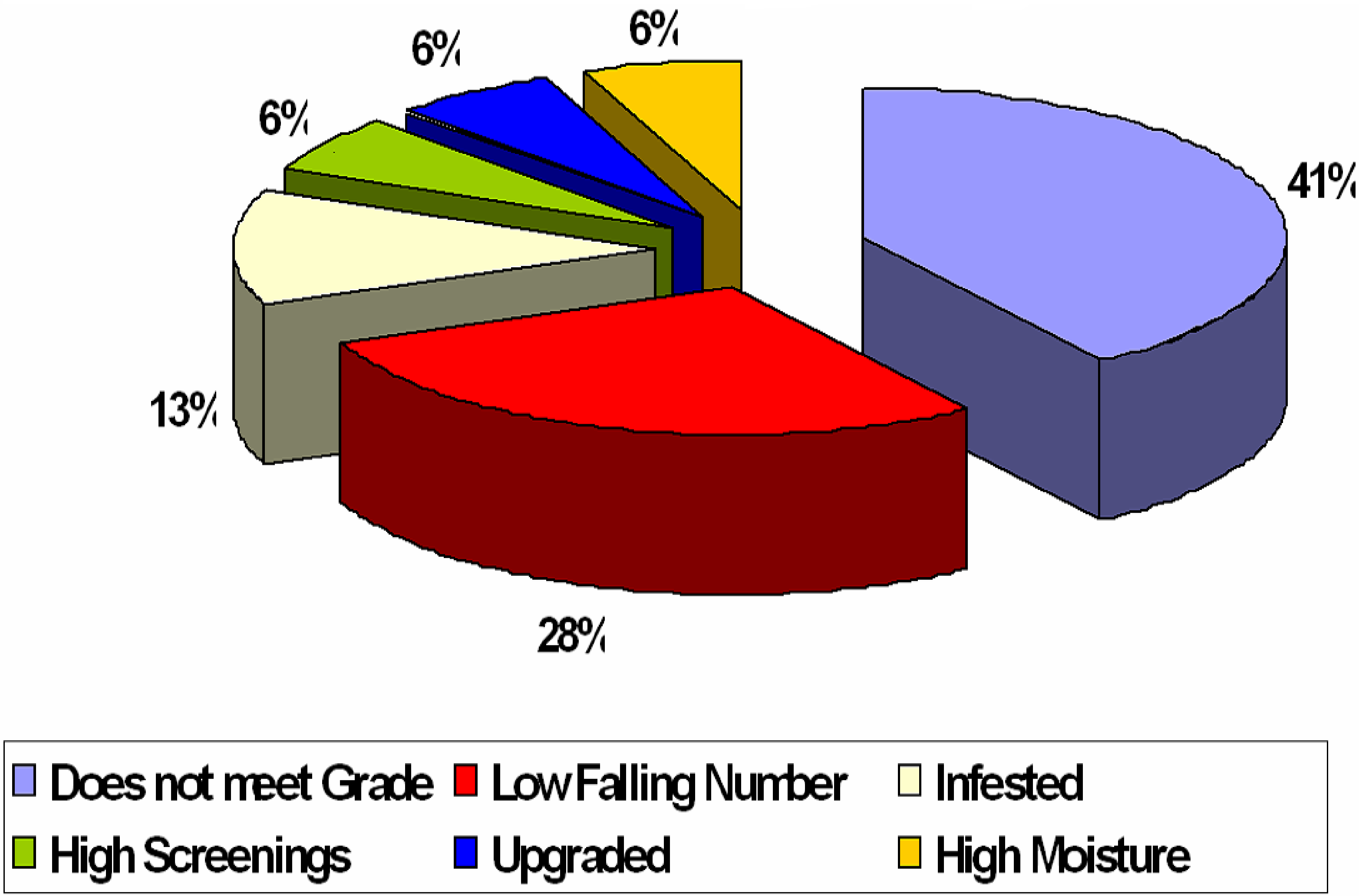
•On the plus side some BHAs have benefited mills by setting up exclusive storage of a single variety

PROCUREMENT AND IDENTITY PRESERVATION

- DM require better transparency of the varietal mix at BHA silos and the opportunity to access from particular silos.

- Domestic Industry has increasing concerns about the accuracy of “Declared Varieties” and this needs addressing.

Wheat Receivals ES Flour Mill - Stock ex BHA Non Conformances (38%) , May - July 2011



WHEAT BREEDING

•Good interaction between Industry and breeders

•Breeders hearing our call with DM targeted varieties

• Build in Consistency across Seasons and Regions

•Exciting new Health Wheats from CSIRO in the pipeline – HAW, Hi Fibre/Resistant Starch, B Glucan, Low GI

•Currently difficult to take full advantage due to wheat cost

•Need better agronomics to make cost effective - better adoption by growers

•Opportunities for Dual Purpose Wheats – Domestic and Export Quality

QUALITY AND VALUE

Key driver for end users is : does the Quality/Price equation = Value

•This does not necessarily mean the lowest cost Wheat – Overall Recipe Cost +Plant Performance

•Quality is Ingredients with Best Fit

•Consistent Ingredients = less waste, product yield and Value

•Proven Plant Performance - not Specifications on Paper – unlike some Export Wheat Customers

PLANT BAKERIES - VALUE

- Is Wheat (Dough) Quality better than - 20 yrs ago !? - Probably

•Flour Quality Consistency – minimises ‘stuff ups’ 8k/hr lines ($80k) ! – Reduce wastage and down time

•Importance of Wheat Quality Consistency !

- Specifications : Wheat/Flours –Milling Yield, High WA, Short MT, Extensibility, Proof Stability, Protein Quality – not Quantity

•Some bakeries need S&D capability for Burger buns

•With increasing W/G breads need protein quality to support the grain in the doughs and minimise gluten usage

•**One Flour for all** – White, Grain, Fruit Breads - Rolls/Burger, Hot plate goods, flat breads !!

BISCUIT INDUSTRY

Future Drivers :

- Efficiency - Lower Energy Consumption
- Health – Traceability – food Safety
- Sustainability – lower Energy use
- Import Pressure

BISCUIT INDUSTRY

What is needed :

- Consistency of Wheat across regions , yr to yr

- More finely graded segregation of Wheats based on relevant Quality parameters – Sft 1 – Sft 2, ANW1 – ANW2 too broad

- Lower Water Absorption

BISCUIT INDUSTRY

Biggest Challenge :

•More detailed and quicker information at Harvest :

- Protein Range
- Varietal Mix
- Additional Quality tests

•Wheat Suppliers to deliver what was ordered

•Allows industry to react and adapt

PASTA – DURUM QUALITY

•Durum Quality – Colour, Vitreousness, Grain size , Protein Strength

•Quality Consistency Important - difficult to overcome seasonal effects with only one main growing region

•Depends on Season – needs hot dry finish

•Endusers looking for more information from the Supply Chain about the new Durum crop in terms of how this will affect pasta processing and quality.

•Short coming – Semolina Mill Yield (62%) - no improvement in 20 yrs – wheat Flour yield incr. 77-81.5%

PASTA MANUFACTURE

- Very price driven by retailers
- Trend to Low end market – use of Durum/Wheat flour
- Premium products use Semolina

BREAKFAST CEREALS

- ASW/APW, no Foreign Matter, light colour, no small Grain or too Hard

- FN, Starch essential for adhesion

- Pentosans & water absorption variation problem

- Mid Protein – meet label claim

BREAKFAST CEREALS

- CONSISTENCY OF WHEAT QUALITY across loads & season and year to year

- WHEAT COST

BREAD TRENDS

•Generics – huge shift - $1/Loaf – consumers demand same quality as Brands!!

•Trend is about Nutrition & Health in packaged Bread

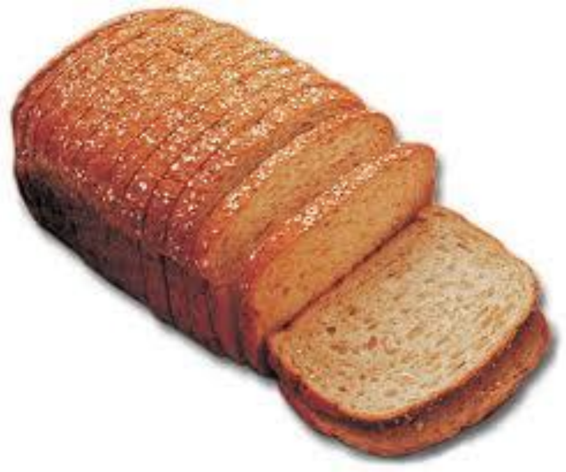
•White to Wholegrain/Fortified shift

•Low GI ? – mixed messages to Consumers

•Weight Maintenance - High Protein / Low GI

•Flat Breads

•Niche - Gluten Free/Ancient Grains/Sour Dough



HIGH STREEET TRENDS

•Reaction to retail chains

•Polarization – Bag of flour – 60 loaves @ $1
or Café style Bakery – serve 15 slices of Fruit Bread at $4 ea?

•Differing Customer needs
Cheapest Ingredients – sacrifice Quality
or Premium Ingredients, Yield, less waste
Great Bread

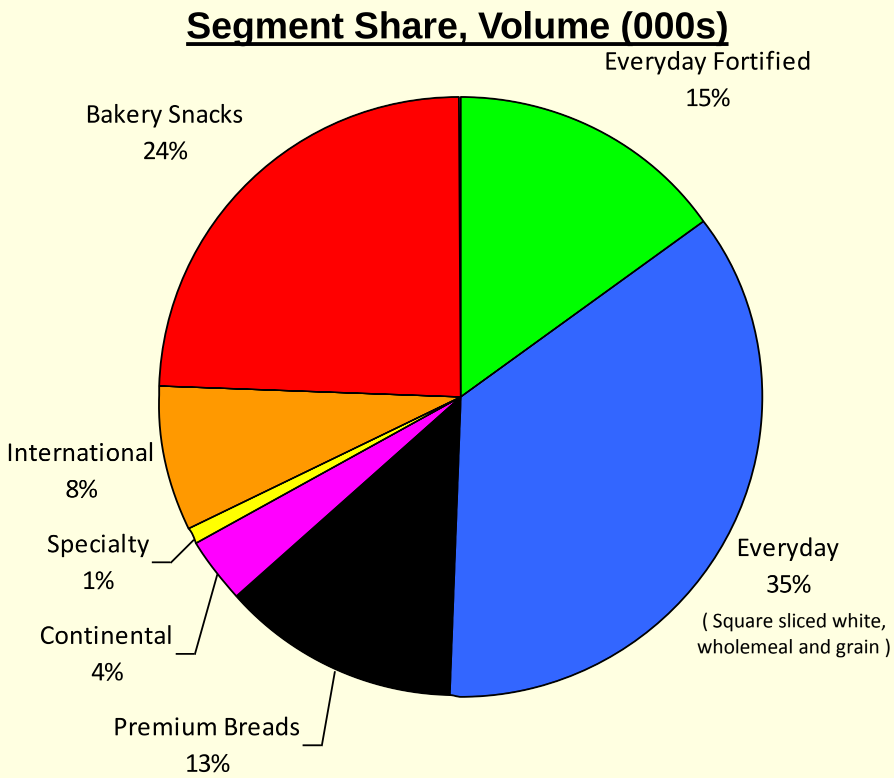
HIGH STREET

- Ethnic foods,Pita,Turkish,Noodle
- Artisan,Sour Dough
- Bakers Delight / Bread Top
- Gluten Free
- Organic

FOOD SERVICE TRENDS

- Growing Food Service markets
- Food Coatings and Crumb
- Gravies - gone GF
- Functionality less important
- Commodity wheat Bucket for Suppliers

Everyday loaves (square sliced loaves) account for largest portion of category value at 35%



Source: Aztec Scan Data, MAT 19/06/01

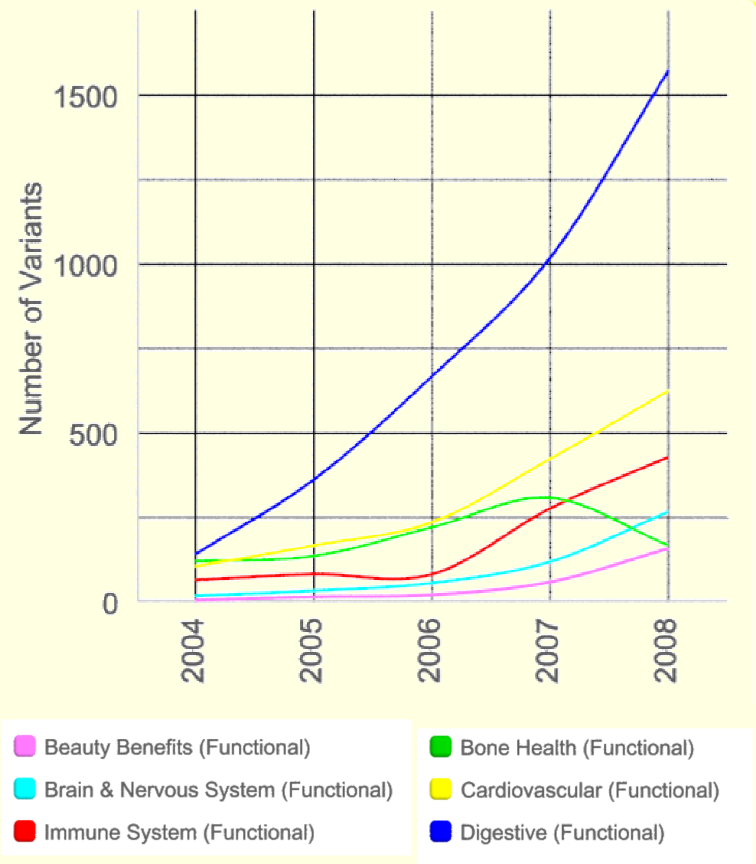
Why is Wholegrain Increasing?

• Negative health consequences provide market opportunity for wholegrain products

• Consumers concerned with:

- Diabetes
- Heart disease
- High cholesterol
- Weight

In addition to simple diet modifications, consumers are turning to foods with "inherent goodness"



Functional Claims, Super Categories, Food and Non-alcoholic Beverages, Global
(no. of new products, Jan 04 – Dec 08)

Popular Ancient Grains

	Nutritional Benefits	Positioning Claims
 **Spelt** A hexaploid species of wheat - an important staple food in parts of Europe in the Bronze Age	[redacted]	High protein Great Taste *is not gluten-free
 **Millet** The millets are a group of small-seeded species of cereal crops or grains	[redacted]	Gluten free Vitamin / Mineral Content
 **Amaranth** A cosmopolitan genus of herbs, and was a staple food of the Aztecs	[redacted]	Gluten free Heart Health High protein / fibre
 **Quinoa** A psuedo-cereal grown for its edible seeds. Originated in the Andean region of South America	[redacted]	Gluten free Vitamin / Mineral Content High Fibre
 **Kamut** Kamut is a trademark owned by Kamut Intl, Ltd., used to market a variety of Khorasan wheat	[redacted]	*not Gluten Free Energy High protein Italian Pasta
 **Teff** A lovegrass native to the Ethiopian Highlands of Africa	[redacted]	Gluten free Digestive

Grains Come Full Circle

Early Ages

Various grains used by ancient civilizations to make stone ground bread

1900-60

Sliced white bread becomes the norm

1960s – 80s

Ancient grains appear in wholefood stores

1990

Gluten-free products enter the supermarket

Today

Ancient grains seen as artisanal and gourmet

KEY MESSAGES & CHALLENGES ?

- Domestic milling and food industry is the **single largest market** for the Australian wheat supply chain
- **Consistency** of quality and supply provide Value for Domestic Food Market ?
- **Communication** - Wheat Supply chain needs to work more closely with Millers and Endusers to understand their wheat requirements
- Access to Crop Quality Information difficult - earlier and more transparent information of varietal composition and Quality at Harvest ? – Involve DFM in database design
- Increasing interest in Specific Varieties & Segregation ?
- Tighter Specifications for Segregation in specialised markets ?
- Improved Agronomics for Preferred and novel Nutritional Varieties to ensure competitive ?

KEY MESSAGES & CHALLENGES ?

- **Quality differentiation** provides Value
- Polarization of markets driven by retailers – requires different cost and quality – Generics to Artisan
- Consumers see Price, Taste and Nutrition/Health as Important
- Trend to Wholegrain, Fortified Breads and Bakery Snacks
- **Food Safety** rapidly increasing in importance as a Risk to be both practically and formerly managed by HACCP , by ISO and similar systems
- **Re-establish technical communication between Domestic Wheat Supply Chain and Endusers – this is not an Export prerogative**
- **Significant Opportunity for the Australian Supply Chain to Improve Delivery to the Domestic Food Industry by working closer together**

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