20 April 2023

Fact Sheet No.018

GRAIN TRADE AUSTRALIA

Australian White Wheat—a New Wheat Class

AWW Industry Working Group Information Paper

Version 2.2

Australian White Wheat – a New Wheat Class

Introduction

The information in this document is an update of the initial Information Paper. It has been prepared by an **Industry Working Group** to provide all grain industry sectors information on the status of implementation and an understanding of the implications from the introduction of a new wheat class – **Australian White Wheat** (AWW).

Background

Australia's wheat classification process managed by previously by Wheat Quality Australia (WQA) and now under the management of Grains Australia (GA) groups similar varieties into wheat Classes based on:

1. A variety's **inherent quality characteristics; and**
2. Its processing and **end use performance characteristics**

New varieties are classified into wheat classes after testing of the performance of trial plantings of the variety against control varieties over 3 seasons.

Classification identifies varieties with the **proven capability** to deliver the requirements of a specific wheat class, creating a solid foundation for **consistent processing and end-product performance**.

This foundation, combined with commercial Wheat Trading Standards, which also include the bin grade cascading rules for those classes, is designed to ensure defects and contamination are acceptably low, and gives customers an assurance and confidence that Australian wheat is of the highest quality.

WHEAT CLASSES

Wheat Classes **have historically** been split into 4 key categories:

- ◊ Premium Hard Wheats (APH, AH, APW)
- ◊ Multi-Purpose Wheats (ASW)
- ◊ Feed wheats
- ◊ Specialty Wheats (Durum, Soft and Noodle)

Quality Profiles

Commencing in 2016, WQA underwent a process to consider how the classification system could support Australian grain to compete more effectively in the export market, particularly for a share of markets that are open to a broader quality profile which may include **general-purpose flour and feed milling** markets. These markets in recent seasons have seen competitor wheat producing origins (e.g. Black Sea region and Argentina) competing strongly against Australian grain.

In general, the wheats produced in these other origins and acceptable to the broader quality profile markets do not follow the rigorous classification system as used in Australia.

Most Australian wheat **currently supplied** by exporters to these broader quality profile markets are either APW or ASW grades.

The varieties in these APW or ASW grades are not bred for the markets that are open to a broader quality profile and are largely APH or AH classed varieties that did not meet the class specifications due to various climatic and agronomic factors.

The yield of Australian varieties may be increased by a reduction to some of the higher value market wheat class attributes

Yield supports Value

In these broader quality profile markets, **returns are generally lower** (than other markets); therefore, for Australian grain growers to maximise value from opportunities in these markets and to compete with lower quality competitor grades, a focus on improved yield performance whilst still maintaining the quality characteristic demands of these markets may (depending on yield factors and grade price differentials) create additional value.

Discussion between GA and Australian wheat breeders when developing the AWW class indicated the following two important points.

1. Current Wheat Breeder Focus

Depending on sowing location, growers have a strong preference towards planting APH and AH classed varieties and anecdotal grower feedback to breeding companies has indicated that a shift to planting lower quality class varieties such as ASW or feed wheats would require a significant yield improvement.

It is understood the broader varietal quality characteristics inherent in the GA class system constrains rates of genetic gain for yield even at the lower end of the scale within the ASW class. This is due to the larger number of characteristics the breeders need to breed for to meet the **inherent quality characteristics** including processing and **end-use performance (i.e., milling and baking quality traits).**

2. Genetic yield grains may be possible if the breeding companies specifically target feed wheats

The desire for a focus on increased yields through the **reduction in end product quality traits**, whilst still delivering some inherent quality attributes of Australian wheat varieties that are not present in all feed varieties, resulted in the development of the AWW class to target higher yields. The increased yields aim to offset the potentially lower market returns of the broader quality profile markets.

AWW allows breeding companies to place a higher focus on yield genetic gain by increasing population size, reducing elite parent cycle time, increasing genetic diversity and reducing the time to market of new varieties.

With these changes, breeders anticipate AWW varieties to have higher yields (up to 8-10% more) than APH and AH varieties while retaining **acceptable quality** for the broader quality profile milling and feed markets.

Broader Scope: The Australian White Wheat (AWW) Class

GA has **broadened the scope for Australia's wheat classification system** – i.e. the development of a new milling wheat class that is specifically established to provide growers high yielding varieties that may provide a better per-hectare return than established milling varieties.

AWW is aimed for the broader **quality profile markets** including base grist blending, general-purpose flour milling and feed milling markets.

To establish the new class, GA **excluded** flour rheology testing and end-product testing as requirements of the classification process. As a result, the AWW wheat class is not based on a variety's **processing and end-use performance characteristics.**

AWW whilst not aimed at a targeted **quality or functional** level has some specific requirements.

AWW varieties will undergo GA testing to maintain some of the core quality characteristics of Australian hard wheat, specifically limited to meeting requirements of being **white, hard and sound with a competitive milling extraction and flour colour**.

These core quality characteristics and the exclusion of flour rheology and end-product testing create the potential for wheat breeders to **deliver higher yielding varieties** by not focussing on **end-product quality traits.**

The AWW varieties that achieve classification by GA have less hurdles than other classes with AWW class specifications established by GA to derive varieties that will be competitive in **the broader quality profile markets.**

AWW Specifications

1. White wheat (excludes Red wheat)
2. Hard wheat (confirmed via a PSI test)
3. Colour – Minolta b test: comparable to Trojan +1.8 or Chief 1.8
4. Flour yield – Comparable to Magenta –1% or Elmore CL Plus –2%

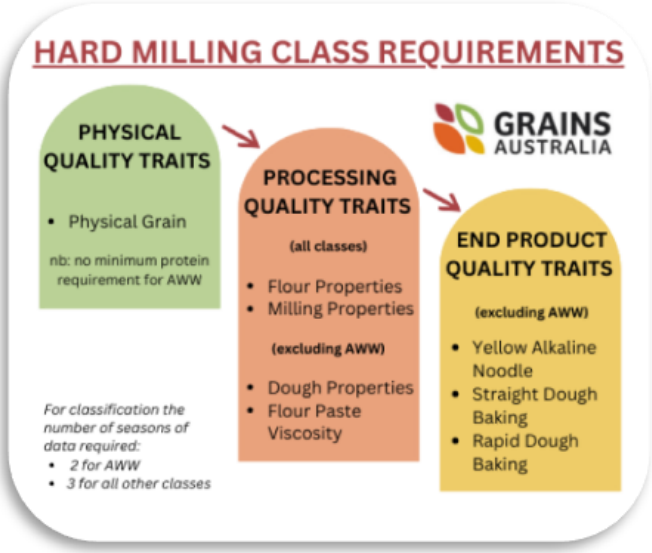
Classification of AWW

GA has currently listed one variety as AWW in the 2022-2023 Wheat Variety Master List.

It is expected further AWW varieties meeting the GA requirements will be included in the GA Wheat Variety Master List over time.

Following development of GTA Trading Standards and bin grade cascading rules by the GTA Trading Standards Committee, the AWW class (and varieties acceptable) will subsequently be referenced in the GTA Wheat Standards for the **respective season.**

As varieties are developed and brought to market and commercial production occurs, testing of each AWW variety's capability to compete with competitor origin grain can be expected. This analysis will also occur for suitability for the domestic market sector.



AWW Market Value

It is expected that it will be several seasons before **AWW varieties** that are **specifically bred** for increased yield whilst meeting the GA specifications will be available in commercial volumes.

Until commercial volumes of emerging varieties are available it is difficult for the market to determine the value of AWW varieties as compared to other origin grain and existing Australian wheat classes.

Market assessment of AWW will be ongoing as over time the increase in genetic diversity of the AWW varieties may result in changes in processing performance or in-market perception and acceptance.

The Implementation Process

There are several steps and processes that will occur in the implementation phase for AWW. A summary of the key steps and timing includes:

Activity	Timing
AWW included in Classification Guidelines	Completed
GTA Trading Standards Committee commences its review and industry consultation seeking comment on AWW wheat Grades	Completed
GTA Trading Standards Committee & the Board finalises 2022/23 Trading Standards	Completed
GA updates its Wheat Master List and includes approved AWW varieties.	Completed
Trading Standards released for 2022/23.	Completed
2023/24 Trading Standards process provides Industry further opportunity to consider the AWW grades	February to August 2023
Trading Standards released for 2023/24 that may include (if approved) the AWW class grade (s) including bin grade Cascade rules and any additional AWW varieties.	August 2023

Consultation and Information Process

The AWW Industry Working Group that includes some GTA export and domestic focussed members, GA, Grain Growers Limited, Grain Producers Australia and AEGIC is focussed on the provision of information to all sectors of industry to ensure the implementation of the AWW wheat class proceeds smoothly and is supported by adequate information.

Key Information to Come

The further implementation of AWW will occur over several seasons. This will be a managed process to ensure all participants in the Australian grain supply chain have access to the information they need to **manage any change.** Extensive feedback will be necessary to ensure all industry sector views are considered.

Information will be sought from all sectors of the value chain, including grain breeders, grain producers, storage companies, domestic and international grain buyers. processors, grain traders and marketers.

During the implementation phase information that is publicly available will be provided. This information is expected to include:

GENERAL INFORMATION ON THE GA Classification process:

* *Is available on GA website, including information related to AWW class*

GTA TRADING STANDARDS PROCESS to provide:

* *AWW Grades and the Cascade rules*

MARKET ENGAGEMENT & PRICE DISCOVERY PROCESS to provide:

* *Market perception of AWW varieties*
* *Market valuation of AWW*

The AWW Class is anticipated **to evolve over time.** The early AWW varieties may be sourced from genetic material of current Australian varieties, and there will likely be some similarity of traits and characteristics to current Australian classes.

New varieties classified as AWW can also include **imported varieties** which meet the AWW class specifications.

Over time, it is expected the differences in the characteristics of AWW compared to other GA classes may evolve, and transition and the differences in end user performance could become more apparent between the classes.

It is difdifficult to forecast how the AWW class will evolve. The market will assess and provide signals on the AWW class value.

Protecting Existing Wheat Classes

AWW is a separate wheat class and does not require **the same end-product testing** during its assessment criteria as other existing milling classes. As most wheat classes cannot be visually identified at receival, it is important that growers correctly **declare AWW** varieties at receival and when marketing their grain**.** Supply chains should also **maintain that separation** as directed by the market.

This is to ensure the integrity of commingled grain in storage and the confidence of buyers and consumers focussed on higher quality milling and baking requirements.

To do otherwise would risk the well-earned, long-term reputation and confidence consumers have in the existing wheat classes (i.e., APH, AH, APW, ASW).

If the reader has any comment or wishes to contact the Industry Working Group, please make the initial contact to:

submissions @graintrade.org.au

Value for Australian wheat breeders

The AWW classification creates an opportunity for breeders to develop new wheat varieties that match market demand for the broader quality profile markets. These markets are less demanding and require less quality testing, thus allowing a wider range of quality types to meet their requirements. This bigger target allows potential for value creation through increased yield, potential broader environmental adaption and reduced risk.

Because the traits within the AWW requirements are less influenced by environmental variations compared to most others, there is opportunity to reduce the number of seasons data required to achieve classification. The faster cycle time and shorter time to market has potential value.

Value for Australian Growers

Planting wheat varieties that are higher yielding whilst meeting specific market requirements may result in a better return on investment for growers and greater profitability over time.

Wheat breeders and GA anticipate AWW varieties to have higher yields (up to 8-10% more) than APH and AH varieties while still retaining **competitive milling quality** for the targeted markets.

As varieties are developed and released, growers should have access to improved yield and adaptability. Over time AWW grade market price information will assist them with commercial decisions on which varieties best fit their own cropping situation and business plan.

However, ultimately ***any value will be a combination of input, management and supply chain costs, any yield gains and market prices relative to existing classes.***

Value for Export Customers

As it is a Hard white wheat class, GA expects AWW should deliver against the specifications required for the broader quality profile markets. It also is anticipated to meet specifications required for feed milling and feed consumption markets. AWW as a wheat class is not intended to compete with higher quality wheats for high-end markets focused more on bread baking and the noodle market.

Value for the Domestic Market

The domestic market — stock feed, milling and industrial — is the largest consumption market for Australian wheat.

The value proposition for the domestic market requires further consideration across both the flour milling market (recognising concerns with varietal integrity of inventories and inaccurate variety declarations) and the potential to fit within the existing feed market specifications and demand.

GRAIN TRADE AUSTRALIA

Grain Trade Australia Pty Ltd PO Box R1829 Royal Exchange NSW 1225

Phone: +61 2 9235 2155 Email: admin@graintrade.org.au Web: www.graintrade.org.au