

Western Australian Malt Barley Variety Receival Recommendations for the 2018/19 Harvest

Summary 2018/19 Harvest

- Bass, La Trobe and Scope CL will be the main malt barley varieties.
- Flinders has gained traction with international customers of Australian malt and Australian barley. Demand is expected to grow as volume grows.
- Granger is still new to the market with limited segregation opportunities to be expected until full market acceptance is achieved. Further international market feedback is needed to provide guidance to the Western Australian barley industry on the expected future demand for this new malt variety.
- Baudin will have limited segregations at the 2018/19 harvest in the Esperance Port Zone. Growers in Kwinana-West and Albany-North looking to grow Baudin for malt in 2018 should talk to their preferred acquirer to determine opportunities for contract production into a niche segregation before planting any seed.
- Segregation opportunities for Bass, Baudin, Flinders, Granger, La Trobe and Scope CL vary by port zone and within a port zone (Table 1).
- Varieties differ in their market preference (Table 2) which may influence the number of buyers and the pricing offered. Bass and Baudin are the preferred varieties for export as grain, Baudin for export as malt and Baudin and La Trobe for the manufacture of shochu in Japan.
- Hindmarsh has been removed from the list of varieties that will be segregated in Western Australia after the 2017/18 harvest. Production of Hindmarsh in 2018 will be directed into feed stacks. The removal of Hindmarsh from the segregated list will increase the demand for La Trobe in the shochu market in Japan as none of the other segregated varieties except Baudin are accepted into that market.

Table 1. Western Australian malt and food barley industry variety recommendations by Port Zone for the 2018/19 harvest

YES	This is a recommended variety for this production zone.
Limited	Limited segregations likely due to low production hectares, limited market demand, a new variety going through market development or phasing out an old variety.
Niche	Subject to availability. Niche segregation only available if a marketer has sufficient tonnage to supply to a domestic or international customer. Marketers will need to contact CBH to negotiate a niche segregation and growers will need to contact their preferred marketer for availability.
NO	Variety has been phased out or marketers are not looking to accumulate this variety in this production zone.

Port Zone	Geraldton	Kwinana		Albany		Esperance	Comment
(~% of total barley area)	~5%	~40%		~30%		~25%	
		Western	Eastern	Northern	Southern		
Malting varieties							
Bass (b)	NO	YES	NO	YES	YES	NO	Stable market demand
Baudin (b)	NO	Niche	NO	Niche	NO	Limited	Preferred variety with stable market demand
Flinders (b)	NO	Limited	NO	Limited	YES	Limited	Market development continuing with increasing domestic and export demand
Granger (b)	NO	NO	NO	Niche	Limited	Limited	Market development continuing with no current export demand
La Trobe (b)	Limited	YES	YES	YES	YES	YES	Stable market demand
Scope CL (b)	Limited	YES	YES	YES	NO	NO	Stable market demand

Executive Summary

The long-term aim of the Western Australian barley industry is to rationalise the number of varieties segregated to two major malt varieties per port zone, with limited segregations on offer for minor, new or niche malt varieties. The benefits for growing and segregating fewer malt varieties include the ease of logistics, more segregations per variety and stronger demand from the trade who are currently unwilling to risk buying small, unsaleable parcels.

The malt barley variety receival recommendations made in this document are intended to be a guide for growers and consultants to help with planning of the 2018 barley cropping program. The international market place is ever evolving and the plan presented this spring will be reviewed again in autumn next year and any changes sought, presented to growers. The rationalisation process needs to be carefully managed to ensure we are not rationalising to the extent that we cannot meet market requirements.

Accreditation as a malt variety does not guarantee market success, but many international markets place value on the accreditation provided by Barley Australia. There is no guarantee that every international market will pay a premium for an accredited malt variety compared to a non-accredited variety.



Pilot process for implementing rationalisation

In the past, the GIWA Barley Council has facilitated industry wide consultation on an annual basis, but had no control or influence on the actual segregations available in any port zone. In 2016 the GIWA Barley Council began working with the CBH operations division to provide guidance to growers as to what segregations would be offered within each of the port zones operated by CBH at an area and a site scale, rather than just at a port zone scale for the 2017/18 harvest. This process will be continuing for the 2018/19 harvest.

In order for CBH operations to manage whole of site harvest receival planning (i.e. segregation allocation) at each CBH site it remains very important for growers to submit their annual planted hectares estimate to CBH on time. Attending pre-harvest meetings is also important to confirm varieties to be segregated at a site level at subsequent harvests based on the port zone recommendations in this document. Some sites can only offer a single malt barley segregation, whereas other sites may be able to offer two or more malt barley segregations.

Barley Australia and the GIWA Barley Council do not support the co-binning of segregated malt varieties, even if the varieties concerned have similar agronomic traits. The Australian barley industry works hard to uphold Australian malt variety traits to the end customer and the reputation and integrity of Australian malt barley from co-binning is at risk and cannot in any way be condoned. Growers should not intentionally contaminate a malt barley stack with another variety. Correct variety declaration is a legal requirement under the Plant Breeders Rights Act and mis-declaration is a breach of the Bulk Handling Act 1967.

When developing agronomic management plans for each of the malt varieties listed in this document growers should be aware of international market signals indicating that Australian barley is generally too low in its grain protein concentration. Growers are encouraged to target producing malt barley grain between 10.5-11.0% protein, a maximum of 20% screenings through a 2.5mm sieve, a hectolitre weight above 64 kg/hL with ryegrass ergot less than 3cm, no whole snails and no glyphosate use near harvest.

Table 2. Market acceptance and trends in market demand of accredited malt barley varieties grown in Western Australia for 2018/19 harvest

PREFERRED	Variety is first choice for buyers for this market segment. More likely to attract a higher malt premium than an ACCEPTABLE variety
ACCEPTABLE	Variety purchased as an alternative to a PREFERRED variety.
Being assessed	Variety is undergoing international market development. This does not imply that there will be future market demand.
No demand	No buyer for this variety for this market segment.

Market type (market size)	Export as grain (> 500,000 t)	Export as malt (300,000 t)	Shochu (160,000 t)
Bass (b)	PREFERRED (stable)	ACCEPTABLE (stable)	No demand
Baudin (b)	PREFERRED (stable)	PREFERRED (stable)	PREFERRED (stable)
Flinders (b)	ACCEPTABLE (increasing)	ACCEPTABLE (increasing)	No demand
Granger (b)	Being assessed	No demand	No demand
La Trobe (b)	ACCEPTABLE (stable)	ACCEPTABLE (stable)	PREFERRED (increasing)
Scope CL (b)	ACCEPTABLE (stable)	ACCEPTABLE (stable)	No demand

Note: Market size – Volumes in brackets are indicative market size only and vary considerably from year to year. They are intended to show differences in market demand and how this may influence demand for different varieties and demand by port zone.



Variety Specific Recommendations

Each malt barley variety grown in Western Australia has unique and different malting attributes. As a consequence, brewers purchase varieties subject to their availability, their price, the style of beer they produce and the type and level of adjunct used in their brewing recipe. This document contains information outlining market demand by port zone (Table 1) and market usage and demand by industry sector (Table 2) as well as comments on each of the malt varieties to be segregated.

Growers should use the following market signals to assist them when deciding on which malt variety or varieties to sow in 2018. Market demand, pricing signals and the location of segregations should be considered in conjunction with the agronomic management required and the risk associated with delivering malt grade barley when determining how much area to plant to each malt variety. Varieties listed as PREFERRED are more likely to attract higher premiums than ACCEPTABLE varieties (Table 2).

Malting varieties

In light of updated market information, discussions with industry and feedback on varietal demand, the GIWA Barley Council has reviewed its variety recommendations "Western Australian Malt and Food Barley Variety Receival Recommendations for the 2017/18 Harvest" published on the 23 August 2016. The updated malt barley recommendations for the 2018 season are as follows:

Bass (D)

- Bass is an approved malt barley suitable for export as grain and as malt.
- Not suitable for the manufacture of shochu in Japan.
- Bass is well recognised in the international malt barley market with stable demand.
- Bass is suited to markets where high levels of adjuncts are used in the brewing process.
- Bass will not be segregated in the Esperance Port Zone at the 2018/19 harvest.
- Target production zone in 2018 are Kwinana-West and Albany Port Zones.

Baudin (D)

- Baudin is the 'market leader' for malt quality, but has less competitive grain yield, grain plumpness and disease resistance to alternative malt varieties in the market place.
- There is international market demand for export as both grain and malt.
- Accepted for shochu production in Japan.
- Target production zone in 2018 is the Esperance Port Zone, whilst niche segregations may be available in Kwinana-West and Albany-North.

Flinders (D)

- Flinders was accredited as a malt barley by Barley Australia in March 2015.
- Market development of Flinders is continuing with international market feedback indicating that Flinders is demonstrating processing qualities in line with market demand.
- Like Bass and Baudin, Flinders is performing well in markets where starch-adjunct brewing is undertaken.
- Target production zones in 2018 are Kwinana-West, Albany and Esperance Port Zones.

Granger (D)

- Granger was accredited as a malt barley by Barley Australia in March 2013.
- Being assessed for export as grain. Granger is still in the early stages of international market development with the first shipment of grain from the Esperance Port Zone being used by international brewing customers during 2017.
- Not being assessed for export as malt or for shochu.
- Limited segregation opportunities are to be expected until full market acceptance is achieved.
- Target production zones in 2018 are Albany and Esperance Port Zones.

La Trobe (D)

- La Trobe is suitable for export as grain and as malt and for the manufacture of shochu in Japan.
- La Trobe is now a recognised malt barley variety and is suitable for brewers seeking malt with a higher Kolbach Index (e.g. suited to markets where starch adjunct brewing is undertaken).
- At the 2018/19 harvest La Trobe will be the main variety purchased for the manufacture of shochu in Japan.
- Growers should not compromise the integrity of La Trobe malt stacks, or seed stocks, by contaminating them with either Hindmarsh or Spartacus CL barley or any other barley variety.
- Target production zones in 2018 are Geraldton, Kwinana, Albany and Esperance Port Zones.

Scope CL (D)

- Scope CL is suitable for export as grain and as malt.
- Not suitable for the manufacture of shochu in Japan.
- Scope CL is recognised in the international malt barley market with stable demand.
- Growers should not compromise the integrity of Scope CL malt stacks, or seed stocks, by contaminating them with Buloke or Spartacus CL barley or any other barley variety.
- Do not use imidazolinone herbicides other than Intervix® or Sentry®.
- Target production zones in 2018 are Geraldton, Kwinana and Albany Port Zones.

Variety Specific Recommendations

Varieties undergoing malting and brewing accreditation

The varieties currently undergoing the Barley Australia malting and brewing accreditation process can be found on the Barley Australia website: barleyaustralia.com.au

Varieties in Stage 1 (target accreditation date is March 2019) include:

- IGB1305 (tested as IGB1305, breeder – InterGrain), and
- RGT Planet (tested as SFR85-104, breeder – RAGT Seeds UK).

Varieties in Stage 2 (target accreditation date is March 2018) include:

- Compass (tested as WI4593, breeder – University of Adelaide), and
- Spartacus CL (tested as IGB1334T, breeder – InterGrain).

Compass (County/Commander//Commander) is derived from Commander with improvements in grain plumpness, grain yield and agronomic characteristics over Commander. Barley NVT data (2012–2016) suggests that the grain yield of Compass is comparable to Hindmarsh, La Trobe and Spartacus CL in Western Australia. Seed of Compass is available from SeedNet Authorised agents. Growers should also look for notifications in the press, in case farmer to farmer trading through the SeedNet Authorised Grower Distribution Scheme is allowed at the 2018/19 harvest.



IGB1305 (WABAR2312/WABAR2332) is a semi-dwarf line that is slightly earlier maturing than Flinders and Bass, but later than La Trobe and Spartacus CL. InterGrain has indicated that IGB1305 has demonstrated greater yield stability and a higher yield potential than Flinders and Bass across a range of environments. InterGrain will release IGB1305 only if it meets the standards set by Barley Australia resulting in its accreditation as a malt barley. Commercial malting of IGB1305 has commenced in 2017 as part of the Barley Australia Stage 1 accreditation process. Seed of IGB1305 is not commercially available for sowing in 2018.

RGT Planet (Tamtam/Concerto) has been introduced into Australia by SeedForce and was bred by RAGT Seeds, a UK based breeding company. Whilst RGT Planet performed well nationally in the 2016 barley NVT (in a generally above average rainfall year), the long-term performance of RGT Planet in Australia is unknown. Despite having approval in several European countries for use by all malt brewers, RGT Planet is undergoing accreditation (Stage 1 in 2017) under Australian growing conditions to see if it suits Australian brewing demands (for all malt and sugar-adjunct brewing) and Asian brewing demands (for starch-adjunct brewing). Seed of RGT Planet is available from SeedForce agents.

Spartacus CL (Scope/4*Hindmarsh//HMVB0325-106) is an imidazolinone tolerant barley with very similar grain quality, grain yield and agronomic characteristics as La Trobe. Barley NVT data (2014-2016) suggests that the grain yield of Spartacus CL is comparable to Compass, Hindmarsh and La Trobe in Western Australia and higher yielding than Scope CL. Seed of Spartacus CL is available from Syngenta SeedGro Partners. Farmer to farmer trading is not allowed.

Until a new variety has completed the malting and brewing accreditation scheme administered by Barley Australia they should be considered as a feed barley. The GIWA Barley Council recommendations only provide market demand guidance for varieties accredited by Barley Australia and the segregation of varieties before their accreditation does not form part of the GIWA Barley Council recommendations to growers. The GIWA Barley Council is supportive of simultaneous international market development by the breeder alongside the malt and brewing accreditation scheme of Barley Australia. If that occurs the breeders or its agent may enter into a niche segregation agreement with a bulk handler to accumulate tonnage for market development purposes.

For further information about Compass, IGB1305, RGT Planet and Spartacus CL talk to the relevant breeder or seed licensee to determine their agronomic characteristics, potential market fit and seed availability. It is important to note that accreditation as a malt variety by Barley Australia does not guarantee segregation or customers domestically or internationally. Unless a new malt variety out-performs established malting varieties in both agronomic and processing capacities the trade will be reluctant to be involved in or encourage its international promotion. Note, any variety not listed in the recommendation tables or not contracted into a niche segregation will be stored and marketed as feed.

Port Zone Recommendations

Geraldton Port Zone

Market opportunity – export as grain.

Target varieties – La Trobe and Scope CL, with limited segregations due to low production volume.

Detail

Grain delivered in the Geraldton Port Zone is exported as grain.

In 2016 the top five barley varieties sown in the Geraldton Port Zone accounted for 92% of the area sown to barley and were Scope CL, La Trobe, Litmus, Hindmarsh and Yagan (in decreasing popularity). Scope CL was the dominant barley variety accounting for one in every two barley ha. La Trobe was the next most important, but only occupied just over one in every eight barley ha, and was three times as popular as Hindmarsh.

In 2017, Scope CL is expected to be just as popular as in 2016. La Trobe will replace Hindmarsh in popularity and the seed bulk up of Spartacus CL will commence. As we move into 2018 it is predicted that Scope CL will still be the dominant variety, but the area sown to Spartacus CL will rise significantly. The growth of Spartacus CL is expected to be at the expense of Hindmarsh, La Trobe and Scope CL. Litmus will remain an important variety on soils with an acidic profile.

Due to the low production base, it is difficult for industry to recommend more than one main malt variety in this port zone. If you choose to sow an alternative malt variety to Scope CL then La Trobe is the suggested alternative malt variety.

Kwinana Port Zone

Market opportunity – export as grain, as malt and for shochu.

Target varieties – Bass, La Trobe and Scope CL with limited segregations for Flinders and possible niche segregations for Baudin (western areas of the port zone only).

Detail

The bulk of the grain delivered in the Kwinana Port Zone is either converted into malt in Perth and exported as malt or exported as grain for shochu production in Japan. Only a small proportion of the grain received is exported as grain to China and south-east Asia. As a consequence, end-users (maltsters and grain acquirers) encourage growers to sow only those varieties used by the trade. Bass, Baudin, La Trobe and Scope CL are the target varieties with demand for Flinders growing as volume grows.

In 2016 the top five barley varieties grown in the Kwinana Port Zone accounted for 92% of the area sown to barley and were Scope CL, La Trobe, Hindmarsh, Bass and Litmus (in decreasing popularity). Scope CL was the dominant barley variety accounting for two in every five barley ha and was more popular than the combined area sown to La Trobe and Hindmarsh. La Trobe and Hindmarsh were sown on a similar area to each other.

In 2017, it is expected that Scope CL, La Trobe and Bass will occupy three in every four barley ha, with Scope CL still the most popular variety just marginally ahead of La Trobe. As we move into 2018, Bass, La Trobe and Scope CL are still expected to be the major varieties in this port zone, with growers bulking up Flinders to replace Bass and Spartacus CL to replace Scope CL and longer term La Trobe.

Higher Rainfall Areas (> 350 mm annual rainfall)

Due to the close proximity to the malt barley market in Perth, the higher rainfall areas of the Kwinana Port Zone have the greatest number of malting barley variety choices available to growers. This also poses issues in matching receival points to variety production.

In 2018, production of Bass, Flinders, La Trobe and Scope CL is encouraged. Growers with Baudin seed should talk to their preferred acquirer to determine opportunities for contract production into a niche segregation before planting any seed. There is no domestic or international demand for Granger from this port zone.

Lower Rainfall Areas (< 350 mm annual rainfall)

In 2018, barley sown in the lower rainfall area will be dominated by La Trobe and Scope CL. Given the yield advantage of Spartacus CL over Scope CL and the high risk of Scope CL not meeting grain plumpness targets on receival, it is likely there will be a reasonable swing to Spartacus CL in farming systems where an imidazolinone herbicide is needed, especially if Spartacus CL is accredited by Barley Australia.

Albany Port Zone

Market opportunity – export as grain and as malt (via domestic maltsters).



Port Zone Recommendations

Target varieties – Bass, Flinders, La Trobe and Scope CL with limited segregations for Granger in southern areas. Growers with Baudin and Granger seed in northern areas of the port zone should talk to their preferred acquirer to determine opportunities for contract production into a niche segregation before planting any seed.

Detail

Grain delivered in the Albany Port Zone is primarily exported as grain. Some grain is also sent to Perth and converted into malt, before being exported as malt.

In 2016 the top five barley varieties grown in the Albany Port Zone accounted for 87% of the area sown to barley and were La Trobe, Hindmarsh, Bass, Scope CL and Flinders (in decreasing popularity). Combined La Trobe and Hindmarsh accounted for one in every two barley ha.

In 2017 La Trobe is expected to largely replace the area sown to Hindmarsh and be the dominant variety in the port zone. As we move into 2018 we expect to see Flinders become the second most popular variety in the port zone with an increase in area sown to Spartacus CL at the expense of Scope CL. Production of Granger will be dependent on market signals. RGT Planet is also likely to increase in popularity, especially if it performs strongly again in 2017 barley NVT.

Non-Coastal Northern Area

Grain produced in the non-coastal part of the Albany Port Zone is primarily exported as grain to international customers. In years where there is a shortage of quality malt barley in the Kwinana Port Zone, some of the grain received in the northern part of the port is delivered to Perth for malting. This is then exported as malt.

Production of Bass, La Trobe and Scope CL is encouraged with limited segregations for Flinders. Growers with Baudin and Granger seed should talk to their preferred acquirer to determine opportunities for contract production into a niche segregation before planting any seed.

Coastal Southern Area

Grain produced in the coastal part of the Albany Port Zone is exported as grain to international customers and not used domestically. As the production risk from powdery mildew and barley leaf rust is high in this area growers are looking at both Flinders and Granger as potential varietal options. It is important to be aware that the international promotion and market development of Flinders is more advanced than that of Granger. In the short term this may result in greater market demand for Flinders.

Market demand will exist for Bass, Flinders and La Trobe, with limited market demand for Granger. Production of Baudin and Scope CL for malt purposes is discouraged in this part of the port zone.

Esperance Port Zone

Market opportunity – export as grain.

Target varieties – La Trobe with limited segregations for Baudin, Flinders and Granger.

Detail

Grain delivered in the Esperance Port Zone is exported as grain.

In 2016 the top five barley varieties grown in the Esperance Port Zone accounted for 82% of the area sown to barley and were La Trobe, Hindmarsh, Granger, Baudin and Scope CL (in decreasing popularity). Combined La Trobe and Hindmarsh accounted for nearly three in every four barley ha. La Trobe was four times as popular as Granger and four times as popular as Baudin, with Baudin and Granger sown on a similar area to each other.

In 2017 La Trobe is expected to largely replace the area sown to Hindmarsh and be the dominant variety in the port zone accounting for two in every five barley ha. Granger is likely to become the second most popular variety sown.

As we move into 2018 the area sown to La Trobe will stabilise (mopping up any remnants sown to Hindmarsh), growers will drop Bass due to the lack of segregations and continue to increase their aggregation of Flinders and Granger. Longer term growers in the port zone have indicated that there will only be room for one longer season malt variety amongst Baudin, Flinders and Granger. Market signals and agronomic performance will be the key to how growers decide. Spartacus CL is likely to increase largely at the expense of Scope CL and as with other higher rainfall areas of Australia, RGT Planet is also likely to increase in popularity if it performs strongly again in the 2017 barley NVT.





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