**4 August 2022** 

# Western Australian Malt Barley Variety Receival Recommendations for the 2023/24 Harvest

# Summary 2023/24 Harvest

The following observations are relevant:

- Barley is still popular among growers. While the area sown to barley has contracted back since the record acreage in 2019, it is on par with that sown to barley in 2018, 2020 and 2021, which is 37% higher than the average area sown from 2010 to 2017 (source: GIWA Crop Report). The popularity of barley in the rotation is expected to remain in 2023, subject to comparative pricing against wheat and canola.
- International trade flows for barley are still significantly affected by China's ban on imports of Australian barley grain. A tight global supply of quality malt barley has allowed diversification for Australian malt barley grain and malt to Africa, Asia, Mexico,
- and South America, with opportunistic malt barley grain sales to maltsters in Europe and North America.
- With international malt plants running at high utilisation levels and structural demand for malt strong, South America is developing as a key market for MALT1 grade barley.
- As production levels in Canada and Europe bounce back, the new market opportunities in Mexico and South America will be won on price, quality, and the balance between supply and demand. This demand will influence the premium for malt over feed, with premiums of at least \$70/t offered during the last twelve months.

#### Table 1. Western Australian malt barley variety segregation recommendations by Port Zone for the 2023/24 harvest

YES	This is a recommended variety for this production zone. Segregations will be preferentially allocated to this variety.						
Limited	Limited segregations are 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 is only available if a marketer has sufficient tonnage to supply domestic or international customers. Marketers should contact CBH to negotiate niche segregation, and growers should contact their preferred marketer to determine availability.						
NO	Variety has been phased out, or marketers are not looking to accumulate this variety in this production zone.						

	Geraldton	Kwinana		Albany					
Port Zone		North (Midlands)	South	North (East)	North	South	Esperance	Comment	
Malting varieties									
Bass (b	NO	Limited	Limited	NO	NO	NO	NO	With declining hectares sown, Bass production is limited to domestic processing and exporting as malt.	
Flinders (D	NO	NO	NO	NO	NO	Niche	NO	Works well as a variety for post-malt blending and sugar-adjunct brewing. Production destined for domestic processing and export as malt.	
Maximus CL (	Limited	YES	YES	Limited	YES	Limited	YES	International markets are still evaluating the malting and brewing fit for Maximus CL.	
RGT Planet (b	NO	YES	YES	NO	YES	YES	YES	Strong market pull due to its global availability.	
Spartacus CL (D	YES	YES	YES	YES	YES	YES	YES	Large volumes are available to the market with increasing acceptance internationally.	



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# Summary 2023/24 Harvest (cont.)

- High-quality malt barley is required to meet the demand from remaining and new export customers of our malt barley and the strong domestic market demand for malt barley.
- Perth's Boortmalt and Barrett Burston malthouses are the largest customers of WA malt barley grain. The two Perth plants currently procure over 300,000 t of malt barley grain annually from growers in the Kwinana and parts of the Albany Port Zones. Barrett Burston has recently upgraded their kiln capacity with a view to increasing the production of malt from its Perth plant in the coming years.
- The future of Bass and Flinders is limited beyond the 2023/24 harvest. There is strong demand in domestic markets as preferred varieties who primarily consume Bass and Flinders to meet the premium, additivefree malt markets in south-east Asia and Japan. While there is still also solid international demand for Bass and Flinders grain, grower production has declined, making it challenging to offer segregations and for it to be commercially viable to achieve exportable quantities.
- Spartacus CL and RGT Planet dominate the production area to barley
- There is a solid demand for RGT Planet from global malting and brewing customers.
- Spartacus CL has increased its international market recognition since last year, with export market opportunities in Asia, Mexico, South Africa, and South America.

- Maximus CL is still new to the market and is being assessed by international customers. Customer demand for Maximus CL from the 2023/24 harvest will depend on processor experience with this variety from the 2022/23 harvest – this is a typical situation for new varieties, with malt premiums usually lower until they have become established in the market.
- Barley Australia\* accredited Bottler in March 2022. Production volumes are extremely limited in WA. It is possible that Bottler could be grown under contract to supply a domestic processor for export as malt. Bottler is unlikely to become a widely sown variety in the Kwinana Port Zone, given its relative agronomic performance against established malt varieties.
- Prices for malt barley in Albany to meet the domestic market demand may be limited. Growers, particularly Flinders, should look at Kwinana bid prices and freight costs to relevant delivery sites versus the local Albany
- Segregation opportunities for Bass, Flinders, Maximus CL, RGT Planet, and Spartacus CL vary by port zone across WA and within a port zone for the Kwinana and Albany Ports (Table 1).

\*Note: Barley Australia malt accreditation is now managed by Grains Australia, however all relevant information will continue to be available at: www.barleyaustralia.com.au



## Why rationalise malt varieties?

In line with previous advice, the WA barley industry supports the long-term aim of segregating up to two major malt varieties per port zone, with limited segregations on offer for minor, new or niche malt varieties. Segregating fewer malt varieties improves logistics (reducing storage and handling costs), makes segregation planning at a bin level easier and encourages more robust demand from the trade who are unwilling to risk buying small, unsaleable parcels.

At the same time, it is vital to have a spread of varieties differing in their management and malt characteristics that allow the blending of processed malt to customer's specifications and to spread agronomic risk. Treating malt barley crops with some chemicals may limit market access, as not all markets will have import tolerances equal to Australian tolerances. For example, opportunistic markets like Europe currently do not purchase barley with imazapyr residue nor barley with detectable levels of diquat herbicide. If they became regular and not opportunistic, such markets might require specific segregations.

The Grain Industry Association of Western Australia (GIWA) Inc (through the GIWA Barley Council) developed these recommendations in consultation with the WA barley supply chain. They aim to guide growers and consultants when planning the 2023 barley cropping program. A plan review will occur in autumn 2023, and any changes in demand will be presented to growers. This document's malt variety recommendations may differ from eastern Australia due to our focus on international markets.



# **Barley rationalisation process**

Three varieties in Stage Two of Barley Australia's accreditation process, Buff, Commodus CL, and Laperouse, are not included in the 2023/24 variety receival recommendation plan. Expect a decision on the malt accreditation of those varieties in March 2023, assuming the parcels available for commercial malting in 2022 are within specification. All three varieties are of interest to WA growers, but interest from customers will be subject to their malt quality profile. Buff is the best barley choice for soils with an acidic profile. Commodus CL is a different plant type to Spartacus CL and Maximus CL and provides improved early vigour and an ability to plant deeper when seeding. Laperouse is a taller plant type with a good straw strength that is better suited to earlier sowing than Compass and Leabrook.

Malt accreditation does not guarantee segregation opportunities. Leabrook and LG Alestar were accredited simultaneously as Maximus CL in March 2021. There is no offshore enquiry from WA malt and grain customers for Leabrook and LG Alestar. The industry has indicated they will not be segregated in WA (but maybe in eastern Australia) at the 2023/24 harvest. Like Compass, the malt characteristics of Leabrook are less suitable for the export malt markets serviced from WA. The malt characteristic of LG Alestar may interest some international brewing customers. There is consideration of closed-loop contracts for LG Alestar to evaluate its commercial malt performance in WA. This may lead to future production opportunities.

Malt accreditation does not guarantee that international markets will be willing to pay a premium for the variety or that there will be demand from customers for their brewing recipes. Malt accreditation also does not imply the agronomic suitability of a variety for different growing environments in WA.

While GIWA facilitates publishing industry recommendations on what malt variety to grow, it has no control over the actual segregations provided by Bunge or CBH. Some sites can only offer a single malt barley segregation, whereas others may offer two or more malt barley segregations. Growers are strongly encouraged to support segregation planning by submitting their area planted information and attending pre-harvest meetings.

The Australian barley industry works hard to uphold Australian malt variety quality to the end customer. It does not support the co-binning of segregated malt varieties, even if the varieties concerned have similar agronomic traits. 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 misdeclaration breaches the Bulk Handling Act 1967. Growers should be careful not to contaminate their seed stocks by mixing varieties that look similar, i.e., La Trobe, Maximus CL, or Spartacus CL, or mix them with any other variety.

International market signals highlight Australian malt barley's generally low protein status. When delivering malt barley grain, growers should target malt barley grain between 10.3-10.8% protein for domestic sales and 10.5-11.0% for export sales (even though the receival window is 9.5-12.8%) with a minimum of 80% retention on a 2.5 mm 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 2023/24 harvest

PREFERRED	Variety is the 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 (> 100,000 t)	Export as malt (300,000 t)	Shochu (160,000 t)
Bass (b)	ACCEPTABLE (declining)	PREFERRED (stable)	No demand
Flinders (b	ACCEPTABLE (declining)	PREFERRED (declining)	No demand
Maximus CL (D	ACCEPTABLE (limited)	Being assessed	Being assessed
RGT Planet (b)	PREFERRED (increasing)	PREFERRED (increasing)	No demand
Spartacus CL (b	ACCEPTABLE (stable)	ACCEPTABLE (stable)	ACCEPTABLE (stable)

Note: Market size — Volumes in brackets are indicative of market size only and vary from year to year. Volumes show differences in market demand across each market sector and influence malt variety choice across port zones. Due to the tariffs recently imposed on Australian barley imports into China, the market size for export as grain has reduced from > 500,000 t to > 100,000 t.

# **Variety Specific Recommendations**

With new malt varieties being released and adopted by growers faster than the phasing out of old malt varieties, the rapid turnover of varieties is a common sticking point for end-users who desire long-term supply and familiarity to optimise their end-use. New varieties also create in-efficiency for bulk handlers, with each further malt segregation adding to the storage and handling cost. Therefore, the GIWA barley variety rationalisation plan attempts to balance the benefits to growers from access to new malt varieties with the demand from customers for access to large parcels of the same malt variety over at least five years.

Each malt barley variety grown in WA has unique malting attributes. Consequently, brewers purchase varieties subject to their availability, familiarity, price, style of beer they produce, and the type and level of adjunct used in their brewing recipe. This document outlines proposed segregation opportunities by port zone (Table 1), market usage and demand by industry sector (Table 2), and varietal-specific comments.

Growers should use the market signals in this document to help them decide on which malt variety or varieties to sow in 2023. Market demand, pricing signals, and segregation locations should be considered in determining malt variety choice, along with the agronomic management required and the risk associated with delivering malt-grade barley. Varieties listed as PREFERRED are more likely to attract higher premiums than ACCEPTABLE varieties. As these industry recommendations are a guide, the actual segregations implemented at the 2023/24 harvest may differ from those proposed in this document. Growers should regularly liaise with their bulk handlers to confirm segregations.



#### **Accredited malt varieties**

The malt barley recommendations for the 2023 season are as follows:

#### Bass (b)

- Bass is a 'market leader' for malt quality, with demand for domestic processing and exporting as malt. It is acceptable for export as grain, but volumes do not support segregations.
- Not suitable for the manufacture of shochu in Japan.
- Bass is well recognised in the international malt barley market with stable demand. Until there is a replacement, Bass is a critical malt variety to maintain our ability to supply premium malt to key customers.
- Suitable for additive-free malting, a growing sector of the international malt market. Sales to those markets are limited by the low supply of Bass (and Flinders).
- Frequently used when blending malt to customer specifications.
- Bass malt has excellent extract and filterability, and its quality
  profile matches the market needs of brewers using high levels of
  starch adjuncts. Bass grain generally has a higher grain protein
  concentration than other malt varieties received, enhancing its
  preference from starch-adjunct brewers, but not all brewers we
  service.
- Bass, like Flinders, has a higher selection rate for malt than RGT Planet and Spartacus CL but is now outclassed for grain yield.
- Target production zones in 2023 are Kwinana-North (Midlands) and Kwinana-South. Limited segregation opportunities will be offered due to limited production.

#### Flinders (1)

- Flinders is acceptable for export as grain and preferred for export as malt. As with Bass, production volumes do not support segregations for export.
- Not suitable for the manufacture of shochu in Japan.
- Suitable for additive-free malting, a growing sector of the international malt market. Sales to those markets are limited by the low supply of Flinders (and Bass).
- Frequently used when blending malt to customer specifications.
- Flinders malt has excellent malt extract and filterability but at a lower enzyme potential than Bass malt.
- Flinders performs well in markets where sugar-adjunct brewing is practiced and when blended post-malting for starch-adjunct brewing markets.
- Flinders, like Bass, has a higher selection rate for malt than RGT Planet and Spartacus CL but is now outclassed for grain yield.
- Target production zones in 2023 are Albany-South. Niche segregation opportunities will be subject to end-user demand.

#### Maximus CL (1)

- Maximus CL is acceptable for export as grain. It is being assessed for export as malt and the manufacture of shochu in Japan.
- Maximus CL malt has a high extract with a high enzyme potential and is suitable for high fermentability, starch-adjunct brewing (barleyaustralia.com.au/wp/wp-content/uploads/Tier-1-Malt-Performance-Summary-Maximus.pdf).
- The industry is expecting Maximus CL will replace Spartacus CL on-farm. The market demand for Maximus CL will be dependent on how its processes from the 2022 cropping season. In the short term, supply could exceed demand while evaluation occurs. Expect the premium for Maximus CL to match Spartacus CL over time as customers become familiar with the variety.
- Use recommended imidazolinone herbicides and be aware of market advice regarding delivering grain from paddocks sprayed with an imidazolinone herbicide.
- Target production zones in 2023 are Geraldton, Kwinana, Albany, and Esperance Port Zones. There will likely be more segregation opportunities in Kwinana-North (Midlands), Kwinana-South, Albany-North, and Esperance than in Geraldton and Albany-South.

#### **RGT Planet** (b)

- RGT Planet is preferred for export as grain and as malt.
- Not suitable for the manufacture of shochu in Japan.
- RGT Planet malt has excellent extract with a moderate enzyme potential and is suitable for sugar- and starch-adjunct brewing.
- RGT Planet is a globally recognised malt variety used extensively in European and South American brewing markets and is gaining acceptance in south-east Asian brewing markets.
- There is currently insufficient MALT1 grade RGT Planet supply to meet demand, resulting in premiums above Spartacus CL in some cases
- Following shifts in global supply, Europe was a new, opportunistic
  market during 2021/22. Given that Europe currently does not
  accept imidazolinone-treated barley, RGT Planet was the only
  variety with sufficient quantities of grain available for export to
  this new market opportunity without the establishment of separate
  segregations for non-IMI treated barley of Spartacus CL. The small
  volumes of Bass and Flinders were primarily absorbed by the
  domestic market and were not available for export to Europe.
- Target production zones in 2023 are Kwinana-North (Midlands), Kwinana-South, Albany, and Esperance Port Zones.

#### Spartacus CL (b)

- Spartacus CL is acceptable for export as grain and malt and is suitable for manufacturing shochu in Japan.
- Spartacus CL malt has a high extract with very good enzyme potential and is suitable for starch-adjunct brewing.
- Use recommended imidazolinone herbicides and be aware of market advice regarding delivering grain from paddocks sprayed with an imidazolinone herbicide.
- Target production zones in 2023 are Geraldton, Kwinana, Albany, and Esperance Port Zones.

# Varieties undergoing malting and brewing accreditation

In May 2022, Barley Australia merged with Grains Australia. With this merge, a new barley industry council formed under Grains Australia ensuring continued delivery of key services to industry, including varietal classification, trade and market access, and existing malting accreditation processes.

Under the merger, all existing technical functions performed by Barley Australia through the Malting and Brewing Industry Barley Technical Committee (MBIBTC) will continue. The outcome of varieties currently under malt evaluation will be updated on: <a href="mailto:barleyaustralia.com.au">barleyaustralia.com.au</a> in March 2023. Not all varieties listed have an agronomic or market fit in WA.

Varieties in Stage One (target accreditation date is March 2024 or later) include:

- AGTB0244 (tested as AGTB0244, breeder AGT),
- AGTB0318 (tested as AGTB0318, breeder AGT),
- Minotaur (tested as AGTB0213, breeder AGT),
- Yeti (tested as AGTB0043, breeder AGT), and
- Zena CL (tested as IGB20215T, breeder InterGrain).

Varieties in Stage Two (target accreditation date is March 2023 or later) include:

- Beast (tested as AGTB0113, breeder AGT),
- Buff (tested as IGB1506, breeder AgVic Services, agent InterGrain),

- Cyclops (tested as AGTB0200, breeder AGT),
- Commodus CL (tested as IGB1908T, breeder InterGrain),
- IGB1825 (tested as IGB1825, breeder InterGrain), and
- Laperouse (tested as WI4952, breeder University of Adelaide, agent – SECOBRA Recherches through SeedNet).

Entry into the Barley Australia accreditation system does not guarantee varietal accreditation for malting and brewing, nor does it guarantee acceptance by international customers of our grain and malt. GIWA recommend caution in adopting a variety under accreditation or sowing large areas to them with the expectation of future segregations unless there is a clear agronomic or grain yield advantage of planting them as a feed-only barley.

For further information about any varieties under Barley Australia assessment, 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 agronomic and processing capacities, the trade will be reluctant to be involved in or encourage its international promotion. Any variety not listed in the recommendation tables or not contracted into a niche segregation will be stored and marketed as feed.



#### **Geraldton Port Zone**

Market opportunity – export as grain.

Target varieties – Spartacus CL and potentially Maximus CL.

#### Detail

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

Median barley ha (GIWA July estimates 2013-2022) -44,500 ha or 3% of the state's barley ha.

There was a sharp increase in barley acreage in 2018 (110,000 ha) and 2019 (120,000 ha). Production returned to normal in 2020 (30,000 ha) before jumping again in 2021 (100,000 ha) and 2022 (140,000 ha). 2022 is the biggest area sown to barley in the Geraldton Port Zone since GIWA crop estimates started in 2010.

In 2021, the top five barley varieties in the Geraldton Port Zone accounted for 90% of the area sown to barley. They were, in decreasing popularity, Spartacus CL, Scope CL, Litmus, Buff, and Rosalind. Two in every three-barley ha in the port zone was either Spartacus CL or Scope CL, with Spartacus CL six times more prevalent than Scope CL. The acid-tolerant varieties, Buff and Litmus, occupied just under 10% each of the barley area in the port zone, surpassing Rosalind.

In 2022, Spartacus CL remains the dominant variety sown, with Scope CL in decline and being replaced by Buff, Litmus and Rosalind. Yagan continues to be planted where it has performed best for the last twenty years.

The low production base in this port zone makes it difficult for the industry to recommend more than one main malt variety in this port zone. Maximus CL is the only malt alternative to Spartacus CL grown in sufficient volumes in the Geraldton Port Zone to justify varietal segregations. Barley Australia's accreditation of Buff might result in an opportunity for growers to supply that variety to Perth processors or export customers if a regular supply of malt-grade barley is delivered.

The new varieties in Barley Australia accreditation, Beast, Cyclops, and Commodus CL, will likely be of agronomic interest to growers in the Geraldton Port Zone, with the potential role of Minotaur yet to be determined.

### **Kwinana Port Zone**

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

**Target varieties** – RGT Planet and Spartacus CL followed by Maximus CL with limited segregations for Maximus CL in Kwinana-North (East) and Bass in Kwinana-North (Midlands) and Kwinana-South.

#### Detail

The bulk of the grain delivered in the Kwinana Port Zone is converted into malt in Perth and exported as malt or shipped as grain for shochu production in Japan. Only a tiny proportion of the grain received is exported as grain to south-east Asia, with new market opportunities opening in Africa and South America.

Median barley ha (GIWA July estimates 2013-2022) – 507,000 ha or 35% of the state's barley ha.

In 2021, the top five barley varieties in the Kwinana Port Zone accounted for 86% of the area sown to barley. They were, in decreasing popularity, Spartacus CL, RGT Planet, Maximus CL, Buff, and Scope CL. Spartacus CL accounted for three in every five-barley ha, six times that sown to RGT Planet. The big mover was Maximus CL, moving into the top five and accounting for 7% of the planted area. The area sown to Bass dropped significantly from 4 to 1% and was mainly cultivated in the Kwinana-North (Midlands) area.

The Kwinana Port Zone in 2021 was the most diverse regarding variety choice, with thirteen varieties sown on at least 1% of the barley area, compared to nine, eleven, and ten varieties occupying at least 1% of the Geraldton, Albany, and Esperance port zones, respectively.

In 2022, Spartacus CL and RGT Planet remain dominant, with Spartacus CL still the most widely sown variety. Maximus CL production should increase significantly and surpass RGT Planet.

As we move into 2023, Bass is still highly relevant to the trade. The dominance of Spartacus CL, the growth of RGT Planet, particularly in Kwinana-South, and Maximus CL's emergence limit Bass's segregation opportunities. Domestic processing demand for Bass (and Flinders) is strong for grain delivered into the Kwinana Port Zone. While any price premium for Bass (or Flinders) may be attractive to a few growers, the lower yield potential and the limited segregation options mean Bass is likely to be phased out after the 2023/24 harvest.

The new varieties in Barley Australia accreditation, Beast, Commodus CL, Cyclops, and Minotaur, all fit the Kwinana Port Zone. Small plot variety trials managed by the GRDC or by DPIRD suggest some yield or agronomic advantages. Those four varieties will get their first outing on farms across WA in 2022, with Beast having smaller acreages in 2021. If their on-farm performance matches the results achieved in small plot trials, along with potential accreditation by Barley Australia, a shakeup in the varietal mix could begin in 2024.

#### **Higher Rainfall Areas (> 350 mm annual rainfall)**

Due to Perth's proximity to the malt barley market, the higher rainfall areas of the Kwinana Port Zone (Kwinana-North (Midlands) and Kwinana-South) have the highest number of malt barley segregation choices available to growers. Many variety options pose issues in matching receival points to variety production. End-users (maltsters and grain acquirers) encourage growers to sow only those varieties used by the trade.

In 2023, while production of Bass is particularly encouraged, there is substantial demand for RGT Planet and Spartacus CL. Growers with Baudin, Bottler, La Trobe, or Flinders seed should talk to their preferred acquirer to determine opportunities for contract production before planting any seed. Maximus CL is becoming a prominent variety in 2022, but until international markets become familiar with the malting and brewing profile of the variety, grower production will likely exceed market demand.

#### **Lower Rainfall Areas (< 350 mm annual rainfall)**

In 2023, barley sown in the lower rainfall area, Kwinana-North (East), will be dominated by Spartacus CL with a growing interest in Buff (undergoing malt accreditation) and Maximus CL. There is interest in the malt quality of Buff, which is an excellent option for soils with an acidic profile and in areas with minimal risk of foliar disease. Maximus CL could fit well agronomically in non-acidic production areas in this part of the port zone as an alternative to or replacement for Spartacus CL.

# **Albany Port Zone**

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

**Target varieties** – RGT Planet and Spartacus CL with niche segregations for Flinders (Albany-South). Segregation opportunities for Maximus CL are likely to be higher in Albany-North than Albany-South.

#### Detail

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

Median barley ha (GIWA July estimates 2013-2022) - 539,000 ha or 37% of the state's barley ha.

In 2021, the top five barley varieties grown in the Albany Port Zone accounted for 92% of the area sown to barley. They were, in decreasing popularity, Spartacus CL, RGT Planet, Rosalind, Flinders, and La Trobe. Spartacus CL accounted for just over two in every five-barley ha and RGT Planet just over one in every four-barley ha. The popularity of Spartacus CL grew while Flinders, RGT Planet, and La Trobe fell. Rosalind remained static as a percentage of the cropped area.

The Albany Port Zone was the most concentrated for varieties that can be delivered into a malt segregation. In 2021, only 13% of the area was sown to varieties that could not be delivered for malt in WA. In the other port zones, 34%, 22% and 24% of the area (Geraldton, Kwinana, and Esperance Port Zones, respectively) were sown to varieties that could not be segregated as malt.

In 2022. Spartacus CL continues as the most popular variety, followed by RGT Planet. Between them, they will occupy up to three in every four-barley ha. Maximus CL area is increasing rapidly. The reduced production of Flinders is limiting segregations. Bass volumes are becoming too small to justify segregation, and La Trobe is declining.

As we move into 2023, expect the production decline of Flinders to continue and further limit segregation opportunities. RGT Planet and Spartacus CL will continue to dominate until Maximus CL demand and production rise, and it moves into the area currently sown to Spartacus CL. Rosalind will play an essential role on many farms.

The new varieties in Barley Australia accreditation, Cyclops and Minotaur, will likely interest growers in medium to higher rainfall areas, while Beast and Commodus CL will be of greater interest in the Albany Port Zone's low to medium rainfall areas.

#### Non-Coastal North Area

Grain produced in the non-coastal part of the Albany Port Zone is primarily exported as grain to international customers. When 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 shipped as malt.

Production of Flinders is encouraged (where economic), but the main varieties will be RGT Planet and Spartacus CL. Flinders has the option of being trucked to segregations at MGC or delivered to receival points in Albany-South. Maximus CL looks a good fit to replace Spartacus CL.

#### **Coastal South 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 leaf diseases is high, growers are looking at varieties with a higher disease resistance profile.

Market demand exists for RGT Planet and Spartacus CL with limited segregation opportunities for Maximus CL.

# **Esperance Port Zone**

Market opportunity – export as grain.

Target varieties – RGT Planet and Spartacus CL, with fewer segregations for Maximus CL likely subject to production.

#### Detail

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

Median barley ha (GIWA July estimates 2013-2022) – 295,000 ha or 20% of the state's barley ha.

In 2021, the top five barley varieties in the Esperance Port Zone accounted for 93% of the area sown to barley. They were, in decreasing popularity, Spartacus CL, RGT Planet, Rosalind, La Trobe, and Flinders. Spartacus CL, RGT Planet, and Rosalind were sown on three in every four-barley ha. For the first time since 2018, Spartacus CL was more popular than RGT Planet. The Esperance Port Zone is the only port zone where Spartacus CL does not occupy at least half the area sown. Rosalind had the biggest following in this port zone compared to the other three.

In 2022, the La Trobe area has declined further, with an increase in the proportion of the barley area sown to Spartacus CL, RGT Planet, Rosalind, and Maximus CL.

As we move into 2023, expect the area sown to Maximus CL to continue to grow. Spartacus CL and RGT Planet will still be essential varieties, and Rosalind will play a part where a shorter season feed variety is needed.

As with the other port zones, the varieties in Barley Australia accreditation, Beast, Commodus CL, Cyclops, and Minotaur, will start on-farm assessment against the current variety selection during 2022. Successful on-farm production combined with potential Barley Australia accreditation will likely influence the variety mix sown in 2024.





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