

# Western Australian Malt Barley Variety Receival Recommendations for the 2024/25 Harvest

## Summary 2024/25 Harvest

### Observations:

- The international barley grain and malt trade fundamentals have not changed significantly in the last twelve months. Diversification (and acceptance) of Australian barley grain and malt to Africa, Asia, Mexico, and South America continues.
- Worth noting, though, is the announcement that China removed the 80.5 per cent anti-dumping and countervailing duty measures on Australian barley on 5 August 2023 and lifted the ban on CBH Grain and Emerald Grain (now trading as Louis Dreyfus Company) on 9 August 2023.
- The end of the barley tariff is good news, especially for malting barley growers, as Australian barley grain can now start flowing back into China. It will take some time for international trade flows to adjust.
- The re-opening of trade with China is expected to benefit Western Australian (WA) growers, given the strong history of our relationship and the excellent fit of our varieties in their malting and brewing systems. However, Chinese maltsters and brewers will need to adjust to the change in the malt variety mix since

**Table 1. Western Australian malt barley variety segregation recommendations by Port Zone for the 2024/25 harvest**

<b>YES</b>	This is a recommended variety for this production zone. Segregations will be preferentially allocated to this variety.							
<b>Limited</b>	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.							
<b>Niche</b>	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.							
<b>NO</b>	<b>Variety has been phased out, or marketers are not looking to accumulate this variety in this production zone.</b>							
Port Zone	Geraldton	Kwinana			Albany		Esperance	Comment
		North (Midlands)	South	North (East)	North	South		
<b>Malting varieties</b>								
Bass (b)	NO	Limited	Limited	NO	NO	NO	NO	Limited supply available due to low hectares sown. Important variety for markets that do not allow processing aids during malting. 2024/25 harvest will be the last harvest Bass is segregated in WA.
Buff (b)	NO	NO	NO	Limited	NO	NO	NO	Popular variety in eastern wheatbelt with good volumes expected at the 2024/25 harvest. Interest for domestic processing as an additive-free malt variety.
Maximus CL (b)	YES	YES	YES	YES	YES	YES	YES	The dominant variety in each port zone. Not yet approved by all export malt and brewing customers. Market expects full acceptance by the 2024/25 harvest.
RGT Planet (b)	NO	YES	YES	NO	YES	YES	Limited	Medium market pull. Important variety for customers seeking malt made without processing aids.
Spartacus CL (b)	NO	YES	YES	YES	YES	YES	YES	Well regarded and in-demand variety, but on-farm production is being rapidly replaced by Maximus CL.

## Summary 2024/25 Harvest (cont.)

they implemented tariffs in 2020. For example, varieties such as La Trobe and Scope CL are no longer segregated, and WA growers have switched from Spartacus CL (which itself was relatively new in 2019) to Maximus CL.

- Traditionally, WA has segregated grain and exported grain or malt from varieties with a medium or high fermentability brewing profile (for example, Baudin, Bass, Flinders, RGT Planet and Spartacus CL).
- While there has been increased trade to Mexico and South America in recent years, which is expected to remain with China now also an option for Australian barley exports, there hasn't been any material change in the quality profile sought by brewers in those countries. These markets have been pleased with Spartacus CL, and traders of Australian grain expect this to roll onto Maximus CL. The likelihood that varieties with a lower fermentability profile (e.g., Compass and Leabrook) will be sought by international traders for export from WA remains low.
- Perth's Boortmalt and United Malt malthouses are the largest customers of WA malt barley grain. The two Perth plants procure more than 300,000 tonnes of malting barley grain annually from growers in the Kwinana and parts of the Albany Port Zones.
- Both domestic processors have strong demand from south-east Asia and Japan for barley varieties that malt without processing aids, namely Bass, Flinders and RGT Planet. Due to tight supply, premiums for those three varieties through the 2022/23 harvest were very significant. Growers should expect premiums to remain at the 2023/24 and 2024/25 harvests.
- Unfortunately, the low supply of Bass, Flinders, and RGT Planet will result in the exclusion of WA malt barley in several premium markets in Asia until the production of new varieties suited to malting without processing aids ramps up.
- Growers planning to continue sowing Bass and Flinders should communicate with domestic processors (through their buyers) to assist them in procuring enough of these high-market-demand varieties. Sales may be through direct contracts rather than delivering into the Co-operative Bulking Handling Group (CBH) system.
- Growers delivering RGT Planet into Albany Port Zone sites should be aware of the high demand for this variety. A higher return after costs may be achieved by delivering it to a receival point in the Kwinana Port Zone instead. As Chinese maltsters and brewers will be familiar with RGT Planet for non-Australian origins, there could be strong support for exporting RGT Planet from the Albany and Esperance Port Zones as they learn how to brew with Maximus CL.
- Segregations of Flinders will cease after the 2023/24 harvest, while the 2024/25 harvest will be the last harvest for Bass segregations. The industry is carefully watching the decline in the production of RGT Planet. They seek a better understanding of the new options that growers in WA may adopt, including the recently accredited varieties Bottler, Buff and LG Alestar, and those in Stage 2 accreditation, particularly Cyclops, Laperouse, Minotaur and Zena CL.
- Production volumes of Bottler and LG Alestar are too low to support segregation in WA. Their pathway to market for domestic processing will only be via direct contracts. Bottler and LG Alestar are suitable

for malting without processing aids. Another advantage for LG Alestar to domestic processors is its quick time from germination to finished malt, quicker than most varieties in the market. These varieties require a sustainable production level in WA to warrant further evaluation and domestic demand.

- Production volumes of Buff are sufficient to support segregations in the Kwinana Port Zone. Feedback from the domestic maltsters suggests Buff may be suitable for malting without processing aids, as with Bass, Flinders and RGT Planet.
- Maximus CL is now the dominant barley variety in WA. Not all our brewing customers have approved its use, especially those in China. Maximus CL has different malting characteristics to Spartacus CL. Malt premiums may be lower than established varieties until it becomes market established. Full brewer approval of Maximus CL is expected to occur within 12 months.
- Spartacus CL has good international market recognition, with export market opportunities in Asia, China, Mexico, South Africa and South America. Maximus CL has quickly replaced Spartacus CL on-farm, and there is an expectation that most international markets will likewise support Maximus CL.
- Segregation opportunities for Bass, Buff, 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](http://www.barleyaustralia.com.au)*





# Introduction

## 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 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 customers' 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. Such markets might require specific segregations if they became regular and not opportunistic.

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 2024 barley cropping program. A plan review will occur in autumn 2024, 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

Eight varieties in Stage Two of Grains Australia Malt Accreditation Program, AGTB0318, Beast, Commodus CL, Cyclops, Laperouse, Minotaur, Yeti, and Zena CL, are not included in the 2024/25 variety receival recommendation plan. Expect a decision on the malt accreditation of those varieties in February or March 2024. Further information about those varieties can be found in the 'varieties undergoing malting and brewing accreditation' section.

Malt accreditation does not guarantee segregation opportunities, nor does it 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. Growers are strongly encouraged to support segregation planning by submitting their area planted information and attending pre-harvest meetings held by the bulk handlers.

The Australian barley industry works hard to uphold the quality of Australian malt variety quality delivered to the end customer. It does not support the co-binning of segregated malt varieties, even if they 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 3 cm, no whole snails and no phosphosate use near harvest.



## Introduction (cont.)

**Table 2. Market acceptance and trends in market demand of accredited malt barley varieties grown in Western Australia for 2024/25 harvest**

<b>PREFERRED</b>	Variety is the first choice for buyers for this market segment. More likely to attract a higher malt premium than an <b>ACCEPTABLE</b> variety.
<b>ACCEPTABLE</b>	Variety purchased as an alternative to a <b>PREFERRED</b> 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)
<b>Bass</b> (b)	<b>ACCEPTABLE</b> (limited)	<b>PREFERRED</b> (stable)	No demand
<b>Buff</b> (b)	No demand	Being assessed	No demand
<b>Maximus CL</b> (b)	<b>ACCEPTABLE</b> (increasing)	<b>ACCEPTABLE</b> (increasing)	Being assessed
<b>RGT Planet</b> (b)	<b>PREFERRED</b> (stable)	<b>PREFERRED</b> (stable)	No demand
<b>Spartacus CL</b> (b)	<b>ACCEPTABLE</b> (stable)	<b>ACCEPTABLE</b> (stable)	<b>PREFERRED</b> (stable)

*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

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 inefficiency 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 2024. 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 segregations implemented at the 2024/25 harvest may differ from those proposed in this document. Growers should regularly liaise with their bulk handlers to confirm availability of segregations.



# Variety Specific Recommendations

## Accredited malt varieties

The malt barley recommendations for the 2024 season are as follows:

### Bass (D)

- 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 segregation.
- Not suitable for the manufacture of shochu in Japan.
- Bass is well recognised in the international malt barley market. Until there is a replacement, Bass is a critical malt variety to maintain our ability to supply premium malt to key customers.
- South-east Asia and Japan seek malt made without processing aids. Bass is suitable for additive-free malting. The low supply of Bass limits sales to those markets. It may result in our exclusion from several premium markets until the production of varieties that malt well without processing aids ramps up.
- 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 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 has a higher selection rate for malt than RGT Planet and Spartacus CL but is outclassed for grain yield.
- Target production zones in 2024 are Kwinana-North (Midlands) and Kwinana-South. Limited segregation opportunities (if any) will be offered due to low production.

### Buff (D)

- Buff is being assessed for export as malt, with international grain markets not yet exposed to Buff (and unlikely to be).
- Buff is not being assessed for the manufacture of shochu in Japan.
- Preliminary data suggests it may be malted effectively without processing additives. In the presence of declining Bass and RGT Planet supply, Buff potentially assists the WA industry in continuing to supply additive-free malt to south-east Asia and Japan.
- Grains Australia has indicated that Buff is a variety with a high fermentability profile and, consequently, would be ideally suited to adjunct brewing.
- Target production zones in 2024 are Kwinana-North (East).

### Maximus CL (D)

- Maximus CL is acceptable for export as grain and malt and is being assessed for 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](https://barleyaustralia.com.au/wp/wp-content/uploads/Tier-1-Malt-Performance-Summary-Maximus.pdf)).

- Grower switch to Maximus CL has rapidly occurred, mainly replacing the area in the rotation previously planted to Spartacus CL.
- Maximus CL has not been approved by all brewing customers, especially those in China. Even with the resumption of trade with China, grower production is still expected to exceed market demand in the short term. Malt premiums may be lower than established varieties until it becomes fully approved. Full approval of Maximus CL is expected within 12 months.
- Use recommended imidazolinone herbicides and be aware of market advice regarding delivering grain from paddocks sprayed with an imidazolinone herbicide.
- Target production zones in 2024 are Geraldton, Kwinana, Albany, and Esperance Port Zones.

### RGT Planet (D)

- 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 suitable for malting without processing aids. RGT Planet is a critical malt variety to maintain our ability to supply premium malt to key customers in south-east Asia and Japan. China, having most likely used RGT Planet from non-Australian origins since 2020, are expected to be interested in Australian-grown RGT Planet.
- There is currently insufficient MALT1 grade RGT Planet supply to meet demand, resulting in premiums above Maximus CL and Spartacus CL in some cases.
- Target production zones in 2024 are Kwinana-North (Midlands), Kwinana-South, and Albany Port Zones, with limited segregations offered in the Esperance Port Zone.

### Spartacus CL (D)

- Spartacus CL is acceptable for export as grain and malt and is preferred for manufacturing shochu in Japan.
- Spartacus CL malt has a high extract with very good enzyme potential and is suitable for starch-adjunct brewing.
- Spartacus CL exhibits different malting characteristics than Maximus CL. For some customers, these differences are desirable. The rapid decline in grower production of Spartacus CL will limit our opportunity to meet some customer specifications for export malt.
- Use recommended imidazolinone herbicides and be aware of market advice regarding delivering grain from paddocks sprayed with an imidazolinone herbicide.
- Target production zones in 2024 are Kwinana, Albany, and Esperance Port Zones.



# Variety Specific Recommendations (cont.)

## Varieties undergoing malting and brewing accreditation

Grains Australia now manage the malt accreditation program following the integration of Barley Australia as a commodity council within Grains Australia in May 2022. The outcome of varieties under malt accreditation can be found at: [barleyaustralia.com.au](http://barleyaustralia.com.au). Not all varieties listed have an agronomic or market fit in WA.

Varieties in Stage One (target accreditation date is March 2025) include:

- IGB1825 (tested as IGB1825, breeder – InterGrain),
- Titan AX (tested as AGTB0325, breeder – AGT), and
- Neo CL (tested as IGB22102T, breeder – InterGrain).

Varieties in Stage Two (target accreditation date is March 2024) include:

- Beast (tested as AGTB0113, breeder – AGT),
- Cyclops (tested as AGTB0200, breeder – AGT),
- Commodus CL (tested as IGB1908T, breeder – InterGrain),
- Laperouse (tested as WI4952, breeder – University of Adelaide, agent – SECOBRA Recherches through SeedNet),
- Minotaur (tested as AGTB0213, breeder – AGT), and
- Zena CL (tested as IGB20125T, breeder – InterGrain).

Varieties in Stage Two (target accreditation date is March 2025) include:

- AGTB0318 (tested as AGTB0318, breeder – AGT), and
- Yeti (tested as ABTB0043, breeder – AGT).

Four varieties in Stage Two malt accreditation, AGTB0318, Beast, Commodus CL and Yeti, are not expected to be segregated in WA even if they meet the Grains Australia malting and brewing accreditation requirements. Beast and Commodus CL are varieties with a low fermentability profile, and feedback from the breeders of those varieties suggests that there is no interest in WA for processing them into malt and no interest from the trade in segregating them for export as grain for a brewing end-use. AGTB0318 and Yeti malt accreditation and agronomic evaluation are only occurring in eastern Australia, with a low probability of their commercialisation in WA.

Of the remaining varieties in Stage Two malt accreditation, the domestic industry has expressed an interest in all four varieties. The following comments are relevant:

- **Cyclops** – medium height, early spring variety with the same erect growing habit as Spartacus CL but with different genetics and no tolerance to imidazolinone chemistry. The breeder has engaged with grain marketers and malt companies operating in WA, and there is positive interest in Cyclops subject to accreditation and sufficient scale of production.
- **Laperouse** – medium height, medium spring variety targeted for sowing in medium to higher rainfall areas with good straw strength and head retention but no tolerance to imidazolinone chemistry. Farmer production of Laperouse is more advanced



than that of Cyclops, Minotaur, and Zena CL. The greatest grower production is found in the western to central areas of the Albany Port Zone. If accredited, limited segregations may be offered for Laperouse at the 2024/25 harvest for market development purposes and evaluation by domestic processors.

- **Minotaur** – medium height, medium spring variety with no imidazolinone tolerance produced by crossing European and Australian genetics. The breeder has engaged with grain marketers and malt companies operating in WA, and there is positive interest in Minotaur subject to accreditation and sufficient scale of production.
- **Zena CL** – medium height, medium spring variety that is effectively RGT Planet with imidazolinone tolerance, bred through mutation breeding from RGT Planet. The breeder expects the variety to have a similar market fit to RGT Planet.

Entry into the Grains Australia malt accreditation program does not guarantee varietal accreditation for malting and brewing or 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 Grains 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 Grains 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.

# Port Zone Recommendations

## Geraldton Port Zone

**Market opportunity** – export as grain.

**Target varieties** – Maximus CL.

### Detail

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

Median barley ha (GIWA July estimates 2014-2023) – 74,000 ha or 5% of the state's barley ha.

Barley production in the Geraldton Port Zone has ranged between 110,000 to 140,000 ha since 2018, except for 2020, dropping to 30,000 ha. Production estimates for the 2023 season sit at 110,000 ha, according to the GIWA Crop Reports.

In 2022, the top five barley varieties in the Geraldton Port Zone accounted for 90% of the area sown to barley. In decreasing popularity, they were Spartacus CL, Maximus CL, Scope CL, Litmus and Buff. Three in every five-barley ha in the port zone was either Spartacus CL or Maximus CL. Imidazolinone-tolerant varieties (Spartacus CL, Maximus CL, Scope CL and Commodus CL) occupied 71% and acid-tolerant varieties (Litmus and Buff) occupied 20% of the barley area in the port zone.

In 2023, feedback from consultants suggests that Maximus CL has replaced Spartacus CL as the dominant variety, with Scope CL in decline and increases in Buff, Commodus CL, Litmus and Rosalind.

The low production base in this port zone makes it difficult for industry to recommend more than one main malt variety in this port zone. Maximus CL is the only malt variety grown in sufficient volumes in the Geraldton Port Zone to justify varietal segregations.

The malt accreditation of Buff in March 2023 creates an opportunity for growers to supply that variety directly to domestic processors or upcountry receival points that may be established in the Kwinana-North (East) Port Zone.

As we move into 2024, Maximus CL and Buff are expected to remain important varieties with further expansion of the Commodus CL production area. Production of Spartacus CL will continue to fall. It is unlikely that Beast, Combat or Cyclops will become important varieties due to their lack of imidazolinone or acid soil tolerance. Titan AX and Neo CL are potential options for future planting, depending on whether imidazolinone is used in the rotation.

## Kwinana Port Zone

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

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

### Detail

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

Median barley ha (GIWA July estimates 2014-2023) – 530,000 ha or 34% of the state's barley ha.

In 2022, the top five barley varieties in the Kwinana Port Zone accounted for 88% of the area sown to barley. In decreasing popularity, they were Maximus CL, Spartacus CL, Buff, RGT Planet and Commodus CL. Maximus CL and Spartacus CL were similar in their production area, with each accounting for one in every three-barley ha. Overall, they were each six times more prevalent than RGT Planet. The big mover was Commodus CL, moving into the top five. The area sown to Bass was below market need at 1% of the area sown to barley and was mainly cultivated in the Kwinana-North (Midlands) area.

The Kwinana Port Zone in 2022 was the most diverse regarding variety choice, with 13 varieties sown on at least 1% of the barley area, compared to nine, 11, and 11 varieties occupying at least 1% of the Geraldton, Albany, and Esperance port zones, respectively.

In 2023, Maximus CL is now the dominant variety, taking over much of the area targeted for Spartacus CL in the rotation. Feedback from consultants suggests that Maximus CL has been sown on three out of every five-barley ha. Buff, Commodus CL and RGT Planet have remained static in their prevalence, while a few growers still support Bass.

As we move into 2024, Bass and RGT Planet are still highly relevant to the trade, with domestic processors hoping that recent incentives offered keep a sufficient supply of Bass and RGT Planet to meet end-user requests for additive-free malt. Due to low production volumes, segregations for Bass will be phased out after the 2024/25 harvest. Maximus CL will continue to dominate production with a reduced supply of Spartacus CL, limiting its segregation opportunities. Buff's future growth above current production levels depends on positive market feedback and malt pricing from domestic processors.

Several new varieties undergoing malt accreditation with Grains Australia, namely Cyclops, Laperouse, Minotaur and Titan AX, may have a role in the Kwinana Port Zone (if accredited) in rotations with no imidazolinone herbicide usage. Two new imidazolinone-tolerant varieties, Neo CL and Zena CL, could also be a good fit for the Kwinana Port Zone (if accredited).

### 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 2024, while the production of Bass is particularly encouraged, there is substantial demand for RGT Planet and Spartacus CL. Growers with Baudin, Bottler, Flinders or LG Alestar seed should talk to their preferred acquirer to determine opportunities for contract production before planting any seed. These regions may also suit the new varieties Cyclops, Minotaur, Neo CL and Zena CL. Grower production of Maximus CL exceeds market demand in 2023, but the market's familiarity with Spartacus CL is expected to roll onto Maximus CL over the next 6-12 months.



# Port Zone Recommendations (cont.)

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

In 2024, Buff and Maximus CL will dominate the barley acreage sown in the lower rainfall area, Kwinana-North (East), with growing interest in Commodus CL for imidazolinone-based rotations and Beast for non-imidazolinone-based rotations. There is strong 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.

## Albany Port Zone

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

**Target varieties** – Maximus CL, RGT Planet and Spartacus CL.

### 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 shipped.

Median barley ha (GIWA July estimates 2014-2023) – 595,000 ha or 38% of the state's barley ha.

In 2022, the top five barley varieties grown in the Albany Port Zone accounted for 91% of the area sown to barley. In decreasing popularity, they were Maximus CL, Spartacus CL, RGT Planet, Rosalind and Commodus CL. Maximus CL accounted for one-third of the barley area and Spartacus CL one-quarter. Rosalind remained static as a percentage of the cropped area, with Beast, Commodus CL and Laperouse, the biggest movers aside from Maximus CL.

The Albany Port Zone was the most concentrated for varieties that can be delivered into a malt segregation. In 2022, only 17% of the area was sown to varieties that could not be delivered for malt in WA. In the other port zones, 41%, 21% and 36% of the area (Geraldton, Kwinana, and Esperance Port Zones, respectively) were sown to varieties that could not be segregated as malt.

In 2023, Maximus CL support has multiplied to dominate production over Spartacus CL, with half the barley acreage likely sown to Maximus CL. Flinders, RGT Planet and Spartacus CL have decreased in popularity. Laperouse has increased while the area sown to Beast and Commodus CL has remained static.

As we move into 2024, expect the production decline of RGT Planet and Spartacus CL to continue as Commodus CL, Cyclops, Laperouse, Maximus CL, Neo CL, Titan AX and Zena CL increase. In addition, Beast and Rosalind will also play a role on many farms in rotations without the recent usage of imidazolinone herbicides.

## 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 (likely under contract) and RGT Planet is encouraged, but the main variety will be Maximus CL. Beast, Cyclops, Laperouse and Titan AX, look suitable for rotations

where imidazolinone herbicides have not been recently used. The imidazolinone-tolerant varieties Neo CL and Zena CL are other varieties expected to increase in area, with large seed volumes of Neo CL likely to be available at the beginning of 2024. The area sown to Commodus CL will increase in lower rainfall areas as a more weed-competitive plant than Maximus CL with greater suitability for deeper sown.

## 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 look at varieties with a higher disease resistance profile.

Market demand exists for Maximus CL, RGT Planet and Spartacus CL.

Combat, Laperouse and Neo CL will be evaluated, subject to seed availability.

## Esperance Port Zone

**Market opportunity** – export as grain.

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

### Detail

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

Median barley ha (GIWA July estimates 2014-2023) – 295,000 ha or 19% of the state's barley ha.

In 2022, the top five barley varieties in the Esperance Port Zone accounted for 89% of the area sown to barley. In decreasing popularity, they were Spartacus CL, Maximus CL, Rosalind, RGT Planet and La Trobe. Spartacus CL was slightly more popular than Maximus CL, with the area of Maximus CL similar to Rosalind.

Of the three port zones from which MALT1 grain is shipped, the Esperance Port Zone had the lowest concentration of varieties suitable for segregation. Likewise, of the Kwinana, Albany and Esperance Port Zones, Esperance was the only port zone where Maximus CL did not overtake Spartacus CL in popularity during 2022.

In 2023, the momentum gained by Maximus CL during 2022 continued, with half the barley area now sown to that variety. Production of RGT Planet has halved with a smaller decrease in Spartacus CL's popularity. The area sown to Rosalind has contracted slightly with increased production of Beast, Combat and Commodus CL, and small acreages sown to Cyclops, Laperouse and Minotaur.

As we move into 2024, Maximus CL will be the dominant variety, with the low RGT Planet and Spartacus CL acreage likely to limit segregation opportunities. Expect to see continued growth in the production of Beast, Combat, Commodus CL, Cyclops, Laperouse, Minotaur, Titan AX, and Zena CL, with early adopters planting Neo CL in their program for the first time.





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