MANGROVE JACK'S

CRAFT SERIES

TRADE MARK

EXPERT *Handcrafted* FERMENTING

DRIED YEAST

FOR HOME CRAFT BREWING AND WINE MAKING

BREWER'S YEASTS FOR CRAFT BREWING

BREWING WITH THE CORRECT YEAST STRAIN IS CRITICAL WHEN CREATING CRAFT BEERS WITH TRUE PERSONALITY.

This range of dried pure yeast strains have been brought to market after years of development, extensive brewing trials and rigorous screening. Craft Series Yeasts give the brewer the ability to create a wider range of craft beer styles, previously requiring liquid yeast.

Each yeast has been propagated and dried using state of the art manufacturing facilities to give you reliable pitching rates, superior shelf stability, and ease of use. You can be assured that with Mangrove Jack's Craft Series Yeasts you will get consistent top quality results with each brew.

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HOME CRAFT BREWERS

BREWING BEER WITH MANGROVE JACK'S CRAFT SERIES DRIED YEASTS

When using these yeasts, there is no need to propagate or make starters. They offer a cost effective and convenient alternative to liquid yeast products, and have the advantage of extended shelf life with consistent high performance.

REHYDRATION INSTRUCTIONS

Although Mangrove Jack's Craft Series Yeasts do not require rehydration, cleaner and more professional results will be produced if rehydrated before use. This excludes wine yeasts and Hard Seltzer Yeast & Nutrient. For all strains **except lager yeasts**, add the sachet contents to 100 ml (3.4 US fl oz) of water previously adjusted to a temperature between 30–35°C (86–95°F). For lager yeasts, rehydrate using 100 ml (3.4 US fl oz) of 20–25°C (68–77°F) water. Stir gently into a yeast cream for between 8-12 minutes then add yeast cream directly to wort. Alternatively the dry yeast can be added directly to the wort by sprinkling onto the surface and leaving to stand for 10-15 minutes before stirring.

ADD YEAST SACHET TO: 100 ml (3.4 US fl oz) WATER

WATER TEMP: 30–35°C (86–95°F) — FOR ALL YEAST STRAINS (EXCEPT LAGER YEASTS)

WATER TEMP: 20-25°C (68-77°F) — FOR LAGER YEASTS

NUMBER OF SACHETS TO USE*

In most cases Mangrove Jack's Craft Series Yeast can be used at a ratio of one 10 g (0.35 oz) pack for up to 23 L (6 US Gal). However, for best results take note of the following exceptions to the rule:

EXCEPTION	RECOMMENDATION
Ales with OG over 1.050*	Use 2 x 10 g (0.35 oz) packets minimum per 23 L (6 US Gal)
Lagers to be fermented at 14°C (57°F) or lower	Use 2 x 10 g (0.35 oz) packets per 23 L (6 US Gal)
Lagers with OG over 1.050*	Use 4 x 10 g (0.35 oz) packets minimum per 23 L (6 US Gal)
Hard Seltzer	Use 1 x 25 g (0.88 oz) Hard Seltzer Yeast & Nutrient packet per 19-20 L (5-5.3 US Gal)

*For much higher OG rates, pitch rates should be increased in line with OG.

Under-pitching yeast in lagers or stronger ales will result in extended lag times (the time between pitching your yeast and the commencement of fermentation) which can allow undesirable microbes to multiply, tainting your beer. The yeast will become "stressed" and may produce excessive and undesirable fruity esters and/or sulphur compounds.

High end gravities are also possible where lower pitch rates are used, leading to sweet and worty unfinished beer.

STORAGE OF SACHETS

For optimum quality and performance, store sachets below 10°C (50°F). Sachets can also be stored in the freezer for maximum viability retention over shelf life.

OPENED PACKETS

Reseal and store for no more than 2 days at below 10°C (50°F) or ideally, in the freezer.

* These values are based off the core 8-10 g/0.30-0.35 oz range. For our 250g range of yeasts, please refer to pouch labels for recommended pitch rates.

HOW BEER YEAST WORKS

1. Lag Phase:

After pitching Mangrove Jack's Beer Yeast into your wort, you will experience a lag period which varies from strain to strain, and from beer to beer; 12-24 hours is normal. The lag phase will also be impacted by the degree of oxygenation of your wort and by temperature. During the lag phase the yeast is acclimatising to its new surroundings, multiplying by budding, taking up free oxygen and nutrients from the wort, and its metabolism is shifting out of dormancy to an active state.

2. Fermentation:

For the first 48 hrs, don't be concerned by the little or absence of activity in your airlock or in the beer. Most strains will show vigorous activity within 12 hours, but lagers in particular such as our Bavarian Lager and Bohemian Lager yeasts will nearly always require over 24 hours to produce any krausen or bubbling in your airlock.

3. Maturation:

Generally, our ale strains produce beer that reaches premium flavour potential after approximately 4 weeks maturation: 1-2 weeks in fermenter, followed by 2-3 weeks in bottles or other storage vessel. However, the following table shows some exceptions to this rule:

EXCEPTION	RECOMMENDATION
Lagers	8-10 weeks: with 3 weeks in fermenter and 5-7 weeks in bottle.
Strong Ales	At least 4 weeks: 2 weeks in fermenter and 2 weeks in bottle (longer if above 1.050 OG).
Bavarian Wheat	3 weeks: 1 or 2 weeks in fermenter and 1 or 2 weeks in bottle.
Cider	3 weeks: 1 week in fermenter and 1-2 weeks in bottle.
Mead	2-4 weeks in fermenter (including clearing). Ready to drink as soon as bottled (no conditioning required) but quality will improve with age similarly to wine.
Hard Seltzer	3-5 weeks: 1-2 weeks in fermenter and 2-3 weeks in bottle (fermentations above 5% ABV may take longer but are not recommended due to nutritional limitations).

4. Reuse:

As a result of the drying process, Mangrove Jack's Craft Series dried yeasts are not suitable for harvesting and/or repitching. For best results, always use a fresh sachet of yeast with every brew.

THE DRIED YEAST RANGE:
Individual Descriptions and Specifications

GENERAL NOTE

The following pages contain detailed technical information on the strains in the Mangrove Jack's Craft Series dried yeast range.

All brewers know that results will vary dependent on many non-yeast-strain-determined factors, and even that yeast performance may be manipulated by temperature control and pitch rates, among other factors.

The results described in the following pages are based on optimum brewing conditions.

M76

Bavarian Lager

Suitable for many European style beers including Lagers, Pilsners, Helles, Munich Dunkel, Rauchbier and more.

YEAST STRAIN DESCRIPTION

A bottom-fermenting yeast suitable for most lager styles. Promotes less sulphur production than other lager strains, as well as a fuller, more rounded malt character with well-promoted hop flavours.

TECHNICAL CHARACTERISTICS

YEAST CLASSIFICATION: *Saccharomyces pastorianus and Saccharomyces cerevisiae*

ALCOHOL TOLERANCE: 8% ABV

ATTENUATION: 75 - 80%

RECOMMENDED TEMPERATURE RANGE: 8 - 14°C (46 - 57°F)

KILLER FACTOR: Sensitive

VIABLE YEAST CELLS: >5 x 10^9 cells per gram

DRY WEIGHT: 93 – 96%

WILD YEAST: <1 per 10^6 cells

TOTAL BACTERIA: <1 per 10^6 cells

GMO STATUS: GMO Free

PERFORMANCE CHARACTERISTICS: 5 = HIGH, 1 = LOW

FLOCCULATION RATE: 3/5

COMPACTION: 3/5

OBSERVABLE TRAITS

AROMA CHARACTERISTICS:
A superlative lager strain that is robust with a light sulphur aroma, expresses hop character well and promotes malt complexity.

FLAVOUR/MOUTHFEEL CHARACTERISTICS:
Lightly acidic, this yeast creates an extremely drinkable lager with less sulphur character than the usual strains.

HIGHER ALCOHOL BEERS:
This yeast does well at higher gravities having a good attenuation range; high alcohol beers do not tend to be too sweet.

Bavarian Wheat

Suitable for Hefeweizen, Kristal Weizen, Dunkel Weizen and more.

M20

YEAST STRAIN DESCRIPTION

A top-fermenting wheat beer yeast which imparts banana and clove esters balanced with spiced aromas. This yeast produces a silky mouthfeel and rich body.

TECHNICAL CHARACTERISTICS

YEAST CLASSIFICATION: *Saccharomyces cerevisiae*

ALCOHOL TOLERANCE: 7.5% ABV

ATTENUATION: 70 - 75%

RECOMMENDED TEMPERATURE RANGE: 18 - 30°C (64 - 86°F)

KILLER FACTOR: Sensitive

VIABLE YEAST CELLS: >5 x 10^9 cells per gram

DRY WEIGHT: 93 – 96%

WILD YEAST: <1 per 10^6 cells

TOTAL BACTERIA: <1 per 10^6 cells

GMO STATUS: GMO Free

PERFORMANCE CHARACTERISTICS: 5 = HIGH, 1 = LOW

FLOCCULATION RATE: 2/5

COMPACTION: 2/5

OBSERVABLE TRAITS

AROMA CHARACTERISTICS:
It has abundant classic banana esters, balanced with clove like phenolic aromas; these aromas tend to overwhelm any malt or hop character in the beer.

FLAVOUR/MOUTHFEEL CHARACTERISTICS:
While this strain has only a moderate tendency to attenuate, the final beer will not be sweet. Instead, it will have a creamy, silky mouthfeel with a full and rich medium body. This strain strips away most caramel and complex malt flavours, while deep roast and chocolate flavours will come through. The slight acidity produced, greatly enhances wheat malt characteristics. It has a very low flocculation rate that makes it ideal for beers that are traditionally served cloudy.

HIGHER ALCOHOL BEERS:
In higher alcohol beers, the phenolic character presented by this strain becomes a bit smokey and esters burst forth. Low attenuation rate may result in a sweet beer.

M47

Belgian Abbey

Suitable for Belgian Pale Ales and Abbey Ales.

YEAST STRAIN DESCRIPTION

Moderately alcohol tolerant with fewer phenols than Belgian Ale, this yeast is exceptionally fruity with hugely complex esters and is highly flocculant.

TECHNICAL CHARACTERISTICS

YEAST CLASSIFICATION: *Saccharomyces cerevisiae*

ALCOHOL TOLERANCE: 8% ABV

ATTENUATION: 73 - 77%

RECOMMENDED TEMPERATURE RANGE: 18 - 25°C (64 - 77°F)

KILLER FACTOR: Sensitive

VIABLE YEAST CELLS: >5 x 10^9 cells per gram

DRY WEIGHT: 93 – 96%

WILD YEAST: <1 per 10^6 cells

TOTAL BACTERIA: <1 per 10^6 cells

GMO STATUS: GMO Free

PERFORMANCE CHARACTERISTICS: 5 = HIGH, 1 = LOW

FLOCCULATION RATE: 4/5

COMPACTION: 4/5

OBSERVABLE TRAITS

AROMA CHARACTERISTICS:
This strain exhibits a plethora of spice and fruity esters, it has a banana and an almost sub-tropical character to it that is very applicable to Belgian ales.

FLAVOUR/MOUTHFEEL CHARACTERISTICS:
The flavour and body contributed by Belgian Abbey yeast is sweeter and less dry, this yeast shows malt character and an amazing ester profile.

HIGHER ALCOHOL BEERS:
Not such a useful strain for higher alcohol beers, this strain will struggle over 8% ABV, although strong beers will create excellent flavour and aroma characteristics.

Belgian Ale

Suitable for Belgian Strong Golden and Belgian Strong Dark Ales.

M41

YEAST STRAIN DESCRIPTION

Spicy and phenolic, this yeast emulates the intensity and complexity of some of the best monastic breweries in Belgium. High attenuation and alcohol tolerance allows you to brew a huge range of Belgian beers.

TECHNICAL CHARACTERISTICS

YEAST CLASSIFICATION: *Saccharomyces cerevisiae var. diastaticus*

ALCOHOL TOLERANCE: 12% ABV

ATTENUATION: 82 - 92%

RECOMMENDED TEMPERATURE RANGE: 18 - 28°C (64 - 82°F)

KILLER FACTOR: Sensitive

VIABLE YEAST CELLS: >5 x 10^9 cells per gram

DRY WEIGHT: 93 – 96%

WILD YEAST: <1 per 10^6 cells

TOTAL BACTERIA: <1 per 10^6 cells

GMO STATUS: GMO Free

PERFORMANCE CHARACTERISTICS: 5 = HIGH, 1 = LOW

FLOCCULATION RATE: 3/5

COMPACTION: 3/5

OBSERVABLE TRAITS

AROMA CHARACTERISTICS:
This yeast develops ripe fruit, especially plum like esters during fermentation which are prominent in the finished beer. It will also show a lightly balanced phenolic character.

FLAVOUR/MOUTHFEEL CHARACTERISTICS:
Beers fermented with this yeast exhibit excellent classic Belgian ale flavour, clove hints with a multitude of fruit esters, alcohol and banana character.

HIGHER ALCOHOL BEERS:
High alcohol beers are this strains bread and butter, with a high alcohol tolerance of 12% ABV, strong beers create excellent flavour and aroma characteristics.

M31

Belgian Tripel

Suitable for Belgian Tripel Style and Trappist style beers.

YEAST STRAIN DESCRIPTION

Provides a fantastic complex marriage of spice, fruity esters, phenolics and alcohol. It is also very attenuative with a high alcohol tolerance making it perfect for a range of Belgian styles.

TECHNICAL CHARACTERISTICS

YEAST CLASSIFICATION: *Saccharomyces cerevisiae var. diastaticus*

ALCOHOL TOLERANCE: 10% ABV

ATTENUATION: 82 - 92%

RECOMMENDED TEMPERATURE RANGE: 18 - 28°C (64 - 82°F)

KILLER FACTOR: Sensitive

VIABLE YEAST CELLS: >5 x 10^9 cells per gram

DRY WEIGHT: 93 – 96%

WILD YEAST: <1 per 10^6 cells

TOTAL BACTERIA: <1 per 10^6 cells

GMO STATUS: GMO Free

PERFORMANCE CHARACTERISTICS: 5 = HIGH, 1 = LOW

FLOCCULATION RATE: 3/5

COMPACTION: 2/5

OBSERVABLE TRAITS

AROMA CHARACTERISTICS:
Belgian Tripel has a fantastic heavily fruity aroma, married perfectly with light spice and esters it is massively complex, spicy, estery and phenolic.

FLAVOUR/MOUTHFEEL CHARACTERISTICS:
Belgian beers fermented with this strain will finish phenolic and dry, they will also exhibit fruity and very complex ester characters. These characters exhibit a beautiful marriage of spice and fruit estery alcohol goodness.

HIGHER ALCOHOL BEERS:
With an alcohol tolerance of 10% ABV, this strain is not suitable for very high alcohol beers, but is ideal for Belgian Tripels and Trappist style ales up to 10% ABV.

Belgian Wit

Suitable for Witbier, Grand Cru, Spiced Ales and other specialty beers.

M21

YEAST STRAIN DESCRIPTION

A traditional, top-fermenting yeast that has a good balance between fruity esters, and warming spice phenolics. The yeast will leave some sweetness, and will drop bright if left long enough.

TECHNICAL CHARACTERISTICS

YEAST CLASSIFICATION: *Saccharomyces cerevisiae*

ALCOHOL TOLERANCE: 8% ABV

ATTENUATION: 70 - 75%

RECOMMENDED TEMPERATURE RANGE: 18 - 25°C (64 - 77°F)

KILLER FACTOR: Sensitive

VIABLE YEAST CELLS: >5 x 10^9 cells per gram

DRY WEIGHT: 93 – 96%

WILD YEAST: <1 per 10^6 cells

TOTAL BACTERIA: <1 per 10^6 cells

GMO STATUS: GMO Free

PERFORMANCE CHARACTERISTICS: 5 = HIGH, 1 = LOW

FLOCCULATION RATE: 2/5

COMPACTION: 2/5

OBSERVABLE TRAITS

AROMA CHARACTERISTICS:
Belgian Wit yeast presents a very light spice with a hint of bubble-gum character. This yeast works exceptionally well with botanics.

FLAVOUR/MOUTHFEEL CHARACTERISTICS:
This yeast has a slightly suppressed Belgian character presenting as phenolic and dry, fruity and very complex. The mouthfeel is smooth, light, dry and crisp.

HIGHER ALCOHOL BEERS:
With a medium attenuation this strain will struggle with extremely high alcohol beers over 8% ABV and may become stressed.

M84

Bohemian Lager

Suitable for German/Bohemian Pilsners, Baltic Porter, and American style Lagers.

YEAST STRAIN DESCRIPTION

A bottom-fermenting lager yeast characterised by its dry and clean palate typical of traditional Czech brewing. Produces soft, delicate and well balanced beers.

TECHNICAL CHARACTERISTICS

YEAST CLASSIFICATION: *Saccharomyces cerevisiae*

ALCOHOL TOLERANCE: 8% ABV

ATTENUATION: 72 - 76%

RECOMMENDED TEMPERATURE RANGE: 10 - 15°C (50 - 59°F)

KILLER FACTOR: Neutral

VIABLE YEAST CELLS: >5 x 10^9 cells per gram

DRY WEIGHT: 93 – 96%

WILD YEAST: <1 per 10^6 cells

TOTAL BACTERIA: <1 per 10^6 cells

GMO STATUS: GMO Free

PERFORMANCE CHARACTERISTICS: 5 = HIGH, 1 = LOW

FLOCCULATION RATE: 4/5

COMPACTION: 4/5

OBSERVABLE TRAITS

AROMA CHARACTERISTICS:
Classic Bohemian Pilsner strain aroma and flavour characteristics can be expected.

FLAVOUR/MOUTHFEEL CHARACTERISTICS:
Hop and malt character will be enhanced and supported by moderate to full body. In wort with simple malt bills, delicate malt flavours will survive. Beer fermented with this strain is generally rich and chewy without being heavy at all. Light and delicately balanced beers call for this strain. Lagering periods as short as 4 weeks may produce acceptable beer but allowing it to lager for 6-8 weeks will result in beer that is richer and smoother with a more refined aroma and flavour.

HIGHER ALCOHOL BEERS:
This strain will perform reasonably well in higher alcohol beer production up to 8% ABV. Beer of over 7% ABV will be slightly sweet, and the alcohol may be slightly hot.

Californian Lager

Suitable for California Common and lagers fermented at ambient (ale) temperatures.

M54

YEAST STRAIN DESCRIPTION

A unique lager yeast that has the ability to ferment at ale temperatures without the associated off flavours. Extended lagering periods are also not required.

TECHNICAL CHARACTERISTICS

YEAST CLASSIFICATION: *Saccharomyces cerevisiae*

ALCOHOL TOLERANCE: 9% ABV

ATTENUATION: 77 - 82%

RECOMMENDED TEMPERATURE RANGE: 18 - 20°C (64 - 68°F)

KILLER FACTOR: Sensitive

VIABLE YEAST CELLS: >5 x 10^9 cells per gram

DRY WEIGHT: 93 – 96%

WILD YEAST: <1 per 10^6 cells

TOTAL BACTERIA: <1 per 10^6 cells

GMO STATUS: GMO Free

PERFORMANCE CHARACTERISTICS: 5 = HIGH, 1 = LOW

FLOCCULATION RATE: 4/5

COMPACTION: 4/5

OBSERVABLE TRAITS

AROMA CHARACTERISTICS:
California Lager yeast produces a clean lager aroma without the associated sulphur, this yeast is perfect for most kinds of lager.

FLAVOUR/MOUTHFEEL CHARACTERISTICS:
California Lager yeast produces clean and crisp lagers. This yeast is excellent for producing anything from a hoppy pilsner to a helles, allowing excellent malt and hop character to be expressed.

HIGHER ALCOHOL BEERS:
With a medium alcohol tolerance this yeast is not designed for fermenting over 9% ABV.

MI5

Empire Ale

Suitable for Scottish Heavy Ales, American Amber Ales, Sweet Stouts and more.

YEAST STRAIN DESCRIPTION

A top-fermenting ale yeast suitable for a variety of full bodied ales, with exceptional depth. Ferments with full, rich, dark fruit flavours.

TECHNICAL CHARACTERISTICS

YEAST CLASSIFICATION: *Saccharomyces cerevisiae*

ALCOHOL TOLERANCE: 8% ABV

ATTENUATION: 70 - 75%

RECOMMENDED TEMPERATURE RANGE: 18 - 22°C (64 - 72°F)

KILLER FACTOR: Sensitive

VIABLE YEAST CELLS: >5 x 10^9 cells per gram

DRY WEIGHT: 93 – 96%

WILD YEAST: <1 per 10^6 cells

TOTAL BACTERIA: <1 per 10^6 cells

GMO STATUS: GMO Free

PERFORMANCE CHARACTERISTICS: 5 = HIGH, 1 = LOW

FLOCCULATION RATE: 4/5

COMPACTION: 3/5

OBSERVABLE TRAITS

AROMA CHARACTERISTICS:
When fermented at the correct temperature, Empire Ale yeast exhibits extremely characterful and appetising estery aromas reminiscent of rich dark fruit.

FLAVOUR/MOUTHFEEL CHARACTERISTICS:
This yeast strain has been carefully selected to aid mouthfeel in the finished beer. Body should be full leaning towards a rich dark fruit character. Care must be taken when designing the beer to adjust hop bitterness to alleviate an over sweet finished beer.

HIGHER ALCOHOL BEERS:
Higher alcohol beers will tend to be slightly too sweet and heavy due to the moderate attenuative capabilities of the strain although a lower mash temperature may help the fermentability and lower the final gravity.

French Saison Ale

Suitable for producing Saisons and farmhouse style beers up to 14% ABV.

M29

YEAST STRAIN DESCRIPTION

French Saison yeast is an exceptional, highly attenuative top-fermenting ale yeast, creating distinctive beers with spicy, fruity and peppery notes. Ideal for fermentation of farmhouse style beer.

TECHNICAL CHARACTERISTICS

YEAST CLASSIFICATION: *Saccharomyces cerevisiae var. diastaticus*

ALCOHOL TOLERANCE: 14% ABV

ATTENUATION: 85 - 95%

RECOMMENDED TEMPERATURE RANGE: 26 - 32°C (79 - 90°F)

KILLER FACTOR: Neutral

VIABLE YEAST CELLS: >5 x 10^9 cells per gram

DRY WEIGHT: 93 – 96%

WILD YEAST: <1 per 10^6 cells

TOTAL BACTERIA: <1 per 10^6 cells

GMO STATUS: GMO Free

PERFORMANCE CHARACTERISTICS: 5 = HIGH, 1 = LOW

FLOCCULATION RATE: 3/5

COMPACTION: 3/5

OBSERVABLE TRAITS

AROMA CHARACTERISTICS:
This French Saison Ale yeast strain brings all the sophistication and complexity of classic Saison ale production to the home brew and small brewery setting. Spicy and peppery characteristics are prominent with an undertone of the ubiquitous fruity character.

FLAVOUR/MOUTHFEEL CHARACTERISTICS:
This is a highly characterful yeast strain that will dominate all but the highest hopping rates and complex malt bills. Beers fermented with this yeast will tend to be dry in finish, often with a slight drying acidity and peppery notes, aiding drinkability at higher alcohol levels. Higher alcohol beers may have an increased ester production and warming alcohol notes.

HIGHER ALCOHOL BEERS:
This yeast strain will perform exceptionally well up to 14% ABV making it suitable for a large range of Saisons.

M66

Hophead Ale

Suitable for New England IPA, Juicy IPA, Hazy IPA, American IPA, American Pale Ale and more.

YEAST STRAIN DESCRIPTION

A yeast and enzyme blend that enhances aromatics and esters, perfect for New England, hazy and fruit forward IPAs. Select enzymes improve aroma and flavour from late hop and fruit additions.

TECHNICAL CHARACTERISTICS

YEAST CLASSIFICATION: *Saccharomyces cerevisiae*

ALCOHOL TOLERANCE: 10% ABV

ATTENUATION: 74 - 82%

RECOMMENDED TEMPERATURE RANGE: 18 - 22°C (64 - 72°F)

KILLER FACTOR: Sensitive

VIABLE YEAST CELLS: >5 x 10^9 cells per gram

DRY WEIGHT: 93 – 97%

WILD YEAST: <1 per 10^6 cells

TOTAL BACTERIA: <1 per 10^6 cells

GMO STATUS: GMO Free

PERFORMANCE CHARACTERISTICS: 5 = HIGH, 1 = LOW

FLOCCULATION RATE: 4/5

COMPACTION: 3/5

OBSERVABLE TRAITS

AROMA CHARACTERISTICS:
Aroma from dry hop additions will be enhanced along with aroma from any fruit additions made during fermentation. The moderate, well-balanced ester profile from this yeast will complement the character from New World hops very well whilst also bringing out some malt character.

FLAVOUR/MOUTHFEEL CHARACTERISTICS:
This yeast ferments clean and relatively neutral, with the moderate, well-balanced ester profile adding subtle complexity. Beers fermented with this yeast have a moderately dry finish but will retain a good level of mouthfeel to prevent them from being too thin.

HIGHER ALCOHOL BEERS:
With a good alcohol tolerance of up to 10% ABV, this yeast works particularly well in stronger IPA styles. Higher ABV beers will retain a good level of body without being too heavy.

Kveik

M12

Suitable for a range of styles from Norwegian farmhouse ales to pale ales and IPAs. Particularly suited to high temperature fermentation. Can also be used for any neutral beer styles where the temperature is too warm for other strains.

YEAST STRAIN DESCRIPTION

A top fermenting yeast, Voss Kveik offers fast fermentation at very high temperatures whilst retaining a neutral flavour character with subtle citrus fruit notes.

TECHNICAL CHARACTERISTICS

YEAST CLASSIFICATION: *Saccharomyces cerevisiae*

ALCOHOL TOLERANCE: 12% ABV

ATTENUATION: 77 - 82%

RECOMMENDED TEMPERATURE RANGE: 20 - 40°C (68 - 104°F)

KILLER FACTOR: Sensitive

VIABLE YEAST CELLS: >5 x 10^9 cells per gram

DRY WEIGHT: 93 – 97%

WILD YEAST: <1 per 10^6 cells

TOTAL BACTERIA: <1 per 10^6 cells

GMO STATUS: GMO Free

PERFORMANCE CHARACTERISTICS: 5 = HIGH, 1 = LOW

FLOCCULATION RATE: 5/5

COMPACTION: 5/5

OBSERVABLE TRAITS

AROMA CHARACTERISTICS:
The Voss Kveik strain produces ales with a neutral aroma profile across a wide temperature range. Due to the neutral aroma punctuated by subtle orange and citrusy esters, this yeast lends itself very well to hop-forward pale ales and IPAs.

FLAVOUR/MOUTHFEEL CHARACTERISTICS:
This highly attenuative yeast will leave moderately low levels of residual sugar, resulting in cleanly fermented beers that are relatively dry. The flavour profile is neutral except for the presence of restrained orange and citrus fruit notes.

HIGHER ALCOHOL BEERS:
With the ability to reach up to 12% ABV, this highly robust and very fast fermenting yeast strain is ideal for use in higher alcohol beers. Its clean yet somewhat fruity flavour profile makes it perfect for making double and triple IPAs.

M36

Liberty Bell Ale

Suitable for both English and American Pale Ales, Extra Special Bitters, Golden Ales and more.

YEAST STRAIN DESCRIPTION

A top-fermenting ale yeast suitable for a wide variety of hoppy and distinctive style beers. This strain produces light, delicate fruity esters and helps develop malt character.

TECHNICAL CHARACTERISTICS

YEAST CLASSIFICATION: *Saccharomyces cerevisiae*

ALCOHOL TOLERANCE: 9% ABV

ATTENUATION: 74 - 78%

RECOMMENDED TEMPERATURE RANGE: 18 - 23°C (64 - 73°F)

KILLER FACTOR: Neutral

VIABLE YEAST CELLS: >5 x 10^9 cells per gram

DRY WEIGHT: 93 – 96%

WILD YEAST: <1 per 10^6 cells

TOTAL BACTERIA: <1 per 10^6 cells

GMO STATUS: GMO Free

PERFORMANCE CHARACTERISTICS: 5 = HIGH, 1 = LOW

FLOCCULATION RATE: 4/5

COMPACTION: 4/5

OBSERVABLE TRAITS

AROMA CHARACTERISTICS:
Some pear esters, possibly strawberry or kiwi-like aromas can be expected. Clean, delicate malt and hop aromas will survive fermentation. If hop and/or malt aromas are prominent in the beer this strain's aroma characteristics will fade to the background.

FLAVOUR/MOUTHFEEL CHARACTERISTICS:
Clean, mostly neutral and smooth, finishes beers moderately dry but does not strip away body. Silky, slightly smooth texture, light to medium body, mild acidity and mostly neutral flavour. Aroma contributions from this yeast strain makes it a good all-rounder for a wide range of ales.

HIGHER ALCOHOL BEERS:
As a very good strain for strong ales, this yeast provides brews with plenty of body, without being heavy or dense.

New World Strong Ale

M42

Suitable for IPAs, Porters, Russian Imperial Stouts and more.

YEAST STRAIN DESCRIPTION

A top-fermenting ale strain suitable for many types of ales of all strengths. Ferments with a neutral yeast aroma to ensure the full character of the malts and hops are prominent in each beer.

TECHNICAL CHARACTERISTICS

YEAST CLASSIFICATION: *Saccharomyces cerevisiae*

ALCOHOL TOLERANCE: 12% ABV

ATTENUATION: 77 - 82%

RECOMMENDED TEMPERATURE RANGE: 16 - 22°C (61 - 72°F)

KILLER FACTOR: Sensitive

VIABLE YEAST CELLS: >5 x 10^9 cells per gram

DRY WEIGHT: 93 – 96%

WILD YEAST: <1 per 10^6 cells

TOTAL BACTERIA: <1 per 10^6 cells

GMO STATUS: GMO Free

PERFORMANCE CHARACTERISTICS: 5 = HIGH, 1 = LOW

FLOCCULATION RATE: 5/5

COMPACTION: 5/5

OBSERVABLE TRAITS

AROMA CHARACTERISTICS:
Hop and malt aromas are enhanced and will tend toward earthy, nutty, orange peel, and mild spice. Esters will be nearly absent in normal strength beers fermented cool; below 20°C (68°F).

FLAVOUR/MOUTHFEEL CHARACTERISTICS:
Beers fermented with this strain will finish dry, and very light beers will not be thin or watery. Acidity will be low, and mouthfeel will be light and soft on the palate with a smooth non astringent texture. As this strain is highly flocculent and resilient and not prone to autolysis, it is excellent for cask or bottle conditioning.

HIGHER ALCOHOL BEERS:
Ester formation will be slightly elevated in higher alcohol beers. The character of the esters will be pleasant with ripe apple and pear dominating, along with faint banana. Beer will be dry, but a perception of malt sweetness will survive in the aftertaste along with malt character and complexity. Alcohol should be warming, not hot.

M44

US West Coast

Suitable for American Style Pale Ales, American Double IPAs, American Style Imperial Stouts and more.

YEAST STRAIN DESCRIPTION

A top-fermenting ale strain suitable for American style ales. This yeast produces an exceptionally clean flavour, ideal for when you want the hop character to really punch through.

TECHNICAL CHARACTERISTICS

YEAST CLASSIFICATION: *Saccharomyces cerevisiae*

ALCOHOL TOLERANCE: 11% ABV

ATTENUATION: 77 - 85%

RECOMMENDED TEMPERATURE RANGE: 18 - 23°C (64 - 73°F)

KILLER FACTOR: Sensitive

VIABLE YEAST CELLS: >5 x 10^9 cells per gram

DRY WEIGHT: 93 – 96%

WILD YEAST: <1 per 10^6 cells

TOTAL BACTERIA: <1 per 10^6 cells

GMO STATUS: GMO Free

PERFORMANCE CHARACTERISTICS: 5 = HIGH, 1 = LOW

FLOCCULATION RATE: 4/5

COMPACTION: 3/5

OBSERVABLE TRAITS

AROMA CHARACTERISTICS:
A very neutral strain even when fermented in higher gravity worts and warmer temperatures. Tangy citrus and pine hop aromas will be enhanced, as well as toasted and dark malt aromas.

FLAVOUR/MOUTHFEEL CHARACTERISTICS:
Beers fermented with this strain will finish dry and crisp. This strain is at its best in hop prominent American style ales. Very light ales may turn out a bit stripped, thin or astringent if care is not taken with the mash temperature and avoiding over-extraction. Acidity is moderately high, boosting hop flavours and creating a clipped finish.

HIGHER ALCOHOL BEERS:
Remaining very neutral, this strain excels in strong ales with simple malt bills. Alcohol will be a dominant flavour and aroma constituent, and may be quite warming but not harsh.

Cider

Suitable for brewing all types of cider.

M02

YEAST STRAIN DESCRIPTION

A high ester-producing cider strain imparting wonderful flavour depth, revealing the full fruit potential. Makes exceptionally crisp, flavoursome and refreshing ciders.

TECHNICAL CHARACTERISTICS

YEAST CLASSIFICATION: *Saccharomyces bayanus*

ALCOHOL TOLERANCE: 17.5% ABV

ATTENUATION: 95 - 100%

NITROGEN REQUIREMENT: Low

RECOMMENDED TEMPERATURE RANGE: 12 - 28°C (54 - 82°F)

OPTIMUM pH RANGE: 2.9-6.0

KILLER FACTOR: Sensitive

VIABLE YEAST CELLS: >1 x 10^{10} cells per gram

DRY WEIGHT: 93 – 96%

WILD YEAST: <1 x 10^{5} cfu/gram

TOTAL BACTERIA: <1 x 10^{5} cfu/gram

GMO STATUS: GMO Free

PERFORMANCE CHARACTERISTICS: 5 = HIGH, 1 = LOW

FLOCCULATION RATE: 5/5

COMPACTION: 5/5

OBSERVABLE TRAITS

AROMA CHARACTERISTICS:
This strain promotes fruity aromas through high ester production, especially at warmer temperatures.

FLAVOUR/MOUTHFEEL CHARACTERISTICS:
Ciders fermented with this strain will finish dry and be relatively full-bodied with exceptional depth and a full-flavoured fruit character.

HIGHER ALCOHOL CIDERS:
This strain has high alcohol tolerance up to 17.5% ABV.

M05

Mead

Suitable for all styles of mead.

YEAST STRAIN DESCRIPTION

A high ester-producing strain conferring fresh, floral esters, especially when fermented cool. This yeast has high alcohol tolerance and ferments well over a wide temperature range.

Note: When using honey you will need a yeast nutrient with this yeast for healthy fermentation.

TECHNICAL CHARACTERISTICS

YEAST CLASSIFICATION: *Saccharomyces cerevisiae*

ALCOHOL TOLERANCE: 18% ABV

ATTENUATION: 95 - 100%

NITROGEN REQUIREMENT: Medium

RECOMMENDED TEMPERATURE RANGE: 15 - 30°C (59 - 86°F)

NOTE: OPTIMUM pH RANGE: 3.0-6.0

KILLER FACTOR: Positive

VIABLE YEAST CELLS: >1 x 10^{10} cells per gram

DRY WEIGHT: 93 – 96%

WILD YEAST: <1 x 10^{5} cfu/gram

TOTAL BACTERIA: <1 x 10^{5} cfu/gram

GMO STATUS: GMO Free

PERFORMANCE CHARACTERISTICS: 5 = HIGH, 1 = LOW

FLOCCULATION RATE: 4/5

COMPACTION: 4/5

OBSERVABLE TRAITS

AROMA CHARACTERISTICS:
This strain promotes fresh, floral aromas through high ester production, especially at cooler temperatures.

FLAVOUR/MOUTHFEEL CHARACTERISTICS:
Meads fermented with this strain will finish dry and be relatively full-bodied with good complexity and a fresh, floral character.

HIGHER ALCOHOL BEERS:
This strain has high alcohol tolerance up to 18% ABV. For higher alcohol meads, ferment cooler; below 25°C (77°F).

Hard Seltzer Yeast & Nutrient

Suitable for all styles of hard seltzer.

MHS

YEAST STRAIN DESCRIPTION

A yeast and nutrient blend especially formulated for making hard seltzer alcohol bases with a clean and neutral flavour and aroma profile.

TECHNICAL CHARACTERISTICS

YEAST CLASSIFICATION: *Saccharomyces cerevisiae*

NUTRIENT CONTENT: Diammonium phosphate-based nutrient complex containing all essential B-vitamins and trace minerals.

ALCOHOL TOLERANCE: 5% ABV (note: 25 g sachet is sufficient for max. 20 L volume)

ATTENUATION: 90 - 100%

RECOMMENDED TEMPERATURE RANGE: 20 - 25°C (68 - 77°F)

OPTIMUM pH RANGE: 4.0-6.0

KILLER FACTOR: Neutral

VIABLE YEAST CELLS: >2.2 x 10^9 cells per gram

WILD YEAST: <1 per 10^6 cells

TOTAL BACTERIA: <1 per 10^6 cells

GMO STATUS: GMO Free

PERFORMANCE CHARACTERISTICS: 5 = HIGH, 1 = LOW

FLOCCULATION RATE: 5/5

COMPACTION: 5/5

OBSERVABLE TRAITS

AROMA CHARACTERISTICS:
This strain exhibits very neutral sensory characteristics, so contribution to aroma will be very minimal, allowing the aromas from the fruit or flavour additions to shine.

FLAVOUR/MOUTHFEEL CHARACTERISTICS:
Sensory impact on flavour profile is very low, and fermentation of refined sugar washes will result in a very light, clean and crisp seltzer base.

HIGHER ALCOHOL SELTZERS:
Fermentation above 5% ABV is not recommended due to the chance of stalled or significantly prolonged fermentation. Raising the fermentation temperature towards the end of fermentation (24 - 25°C) helps to mitigate extended fermentation times. Use of natural fruit to supplement yeast nutrition is strongly recommended for this.

WINE YEASTS INSTRUCTIONS FOR USE

Do not rehydrate yeast before addition, but add directly to the must/juice noting the following;

- To avoid extended lag time and risk of bacterial contamination ensure must/juice temperature is above 20°C (68°F) for the start of fermentation and for at least the first 24 hours.
- Control fermentation temperature within the range specified for each strain. As a general rule ferment between 20-24°C (68-75°F) unless cold fermenting is desired for flavour/aroma development.
- All yeast strains are sensitive to excessive osmotic pressure, incorrect pH and nutrient deficiency. Due care and attention to must/juice preparation is important.

SELECTING THE RIGHT YEAST

You will note from the charts that several yeast strains may be suitable for the same wine style. The separate yeast description provides you with further detailed information about each specific strain. This is especially useful where more than one strain has been indicated as a great fit and you may even decide that the qualities offered by a yeast strain that is only a good fit may provide what you desire for your wine.

THE IMPORTANCE OF NUTRITION

If the yeast lacks nutrition during fermentation, off flavours and aromas will be formed by the yeast and reduce the overall quality of the wine. In extreme cases of nutritional deficiency, fermentation will stick. This is why important vitamins like biotin and thiamine are added by commercial winemakers, as well as diammonium phosphate (DAP). However, there are other important vitamins (apart from biotin and thiamine) as well as a number of trace minerals and co-factors that yeast requires for fermentation. You may still need to add DAP in situations where there is insufficient nitrogen or phosphorous provided by the fruit ingredients. The quantity of DAP to use will vary depending on the quantity of fruit used, but will generally be between 7 - 15 g (0.2 - 0.5 oz) per 23 L (6 US Gal) fermentation. For ultimate quality delay DAP addition until day 2 to ensure yeast is forced to assimilate available amino acids from the fruit.

CL23

Suitable for Cabernet Sauvignon, Chardonnay, Vegetable wine and more.

CL23

YEAST STRAIN DESCRIPTION

A multi-purpose strain with a very neutral sensory impact, suitable for most wine styles but especially white, blush and sparkling wines. This fast fermenting yeast is highly robust, tolerating difficult fermentation conditions and alcohol levels up to 18% ABV.

Note: This yeast is blended with vitamins and minerals to ensure optimum fermentation. Note that supplementation with an appropriate organic or inorganic nitrogen-based nutrient regime is required when using this yeast.

TECHNICAL CHARACTERISTICS

YEAST CLASSIFICATION: *Saccharomyces bayanus*

NITROGEN REQUIREMENT: Low

RECOMMENDED TEMPERATURE RANGE: 14 – 32°C (57 – 90°F)

OPTIMUM pH RANGE: 2.9-6.0

REHYDRATION: None required, add direct to grape must and stir well

KILLER FACTOR: Positive

ALCOHOL TOLERANCE: 18% ABV

VIABLE YEAST CELLS: >1 x 10^{10} cells per gram

DRY WEIGHT: 92 – 96%

WILD YEAST: <1 x 10^{5} cfu/gram

TOTAL BACTERIA: <1 x 10^{5} cfu/gram

GMO STATUS: GMO Free

OBSERVABLE TRAITS

AROMA CHARACTERISTICS:
This strain exhibits very neutral sensory characteristics, so aroma would be from the grapes/fruit alone.

FLAVOUR/MOUTHFEEL CHARACTERISTICS:
Sensory impact on flavour profile is very low, and fermentation is completed to dryness resulting in wines which are crisp, dry, and rigidly structured. Wines made with this strain tend to be low to medium bodied, due to low glycerol production and lack of residual sugars.

HIGHER ALCOHOL WINES:
Suitable for high alcohol wine of all styles, this low fusel oil producing strain ferments cleanly up to 18% ABV.

AW4

AW4

Suitable for Sauvignon Blanc, Semillon, Riesling, Dessert Wine and more.

YEAST STRAIN DESCRIPTION

A highly aromatic strain suitable for white & rosé wines, this moderate fermenting yeast confers fragrant aromatic esters to the wine which enhance varietal expression and aroma. This positive aromatic impact can be used to complete the natural aromatic qualities of the grape, or to enhance where the grape itself is lacking.

Note: This yeast is blended with vitamins and minerals to ensure optimum fermentation. Note that supplementation with an appropriate organic or inorganic nitrogen-based nutrient regime is required when using this yeast.

TECHNICAL CHARACTERISTICS

YEAST CLASSIFICATION: *Saccharomyces cerevisiae*

NITROGEN REQUIREMENT: Low

OPTIMUM pH RANGE: 3.0-6.0

RECOMMENDED TEMPERATURE RANGE: 16 – 24°C (61 – 75°F)

REHYDRATION: None required, add direct to grape must and stir well

KILLER FACTOR: Positive

ALCOHOL TOLERANCE: 14% ABV

VIABLE YEAST CELLS: >1 x 10^{10} cells per gram

DRY WEIGHT: 92 – 96%

WILD YEAST: <1 x 10^{5} cfu/gram

TOTAL BACTERIA: <1 x 10^{5} cfu/gram

GMO STATUS: GMO Free

OBSERVABLE TRAITS

AROMA CHARACTERISTICS:
Confers intense, aromatic esters which give powerful, fragrant fruity and spicy notes.

FLAVOUR/MOUTHFEEL CHARACTERISTICS:
Aromatic fruity ester contribution is fully apparent in the flavour of wines made using this strain. Moderate glycerol production means some enhancement to body/mouthfeel.

HIGHER ALCOHOL WINES:
Not suitable for wines above 14% ABV.

CY17

Suitable for Sauvignon Blanc, Zinfandel, Muscat, Muscadet, Gewurztraminer, and more.

CY17

YEAST STRAIN DESCRIPTION

A white wine strain for making both dry and sweet wines, and also rosé wines. This moderate fermenting yeast is also perfectly suited to making country style wines from fruits and flowers, as these flavours and aromas are naturally enhanced. This strain promotes body, and confers rich and full, fruit and floral aromatics.

Note: This yeast is blended with vitamins and minerals to ensure optimum fermentation. Note that supplementation with an appropriate organic or inorganic nitrogen-based nutrient regime is required when using this yeast.

TECHNICAL CHARACTERISTICS

YEAST CLASSIFICATION: *Saccharomyces cerevisiae*

NITROGEN REQUIREMENT: Low

RECOMMENDED TEMPERATURE RANGE: 16 – 24°C (61 – 75°F)

OPTIMUM pH RANGE: 3.0-6.0

REHYDRATION: None required, add direct to grape must and stir well

KILLER FACTOR: Sensitive

ALCOHOL TOLERANCE: 14% ABV

VIABLE YEAST CELLS: >1 x 10^{10} cells per gram

DRY WEIGHT: 92 – 96%

WILD YEAST: <1 x 10^{5} cfu/gram

TOTAL BACTERIA: <1 x 10^{5} cfu/gram

GMO STATUS: GMO Free

OBSERVABLE TRAITS

AROMA CHARACTERISTICS:
This strain contributes significantly to wine aroma, developing complex tropical fruit and floral aromatic qualities.

FLAVOUR/MOUTHFEEL CHARACTERISTICS:
Wines made using this strain are full and well-rounded, exhibiting the same complexity of fruit and floral notes as present in the aroma.

HIGHER ALCOHOL WINES:
Not suitable for wines above 14% ABV.

MA33

MA33

Suitable for Zinfandel, Fruit wines and more.

YEAST STRAIN DESCRIPTION

This strain has the ability to reduce malic acid by up to 30-35%, and reduce total titratable acidity, making it perfect for young wines intended for early consumption, and for use with fruits high in acid. This moderate fermenting yeast will soften the palate but also contribute a significant amount of esters, conferring a fresh and fruity character to the wine.

Note: This yeast is blended with vitamins and minerals to ensure optimum fermentation. Note that supplementation with an appropriate organic or inorganic nitrogen-based nutrient regime is required when using this yeast.

TECHNICAL CHARACTERISTICS

YEAST CLASSIFICATION: *Saccharomyces cerevisiae*

NITROGEN REQUIREMENT: Low

RECOMMENDED TEMPERATURE RANGE: 18 – 28°C (64 – 82°F)

OPTIMUM pH RANGE: 3.0-6.0

REHYDRATION: None required, add direct to grape must and stir well

KILLER FACTOR: Sensitive

ALCOHOL TOLERANCE: 14% ABV

VIABLE YEAST CELLS: >1 x 10^{10} cells per gram

DRY WEIGHT: 92 – 96%

WILD YEAST: <1 x 10^{5} cfu/gram

TOTAL BACTERIA: <1 x 10^{5} cfu/gram

GMO STATUS: GMO Free

OBSERVABLE TRAITS

AROMA CHARACTERISTICS:
Positive contribution from esters will give the wine a fresh and fruity aromatic quality which will hold up well over time during ageing.

FLAVOUR/MOUTHFEEL CHARACTERISTICS:
Acid reduction will soften the palate significantly, making wines that are soft, rounded, and easy-drinking. Ester contribution will come across in the flavour conferring a fresh and fruity character.

HIGHER ALCOHOL WINES:
Not suitable for wines above 14% ABV.

BV7

Suitable for Merlot, Syrah, Pinot Noir, Chardonnay, Semillon and more.

BV7

YEAST STRAIN DESCRIPTION

A multi-purpose strain which enhances volume and intensity for full varietal flavour expression. This moderate fermenting yeast also promotes good body and structure, whilst still preserving and respecting the natural flavour and aroma characteristics of the grape. Its multi-purpose nature makes it a great fit for Merlot, Syrah and Pinot Noir, as well as whites like Chardonnay and Pinot Gris. It is also a good fit for Cabernet Sauvignon.

Note: This yeast is blended with vitamins and minerals to ensure optimum fermentation. Note that supplementation with an appropriate organic or inorganic nitrogen-based nutrient regime is required when using this yeast.

TECHNICAL CHARACTERISTICS

YEAST CLASSIFICATION: *Saccharomyces cerevisiae*

NITROGEN REQUIREMENT: Low

RECOMMENDED TEMPERATURE RANGE: 14 – 28°C (57 – 82°F)

OPTIMUM pH RANGE: 3.0-6.0

REHYDRATION: None required, add direct to grape must and stir well

KILLER FACTOR: Positive

ALCOHOL TOLERANCE: 14% ABV

VIABLE YEAST CELLS: >1 x 10^{10} cells per gram

DRY WEIGHT: 92 – 96%

WILD YEAST: <1 x 10^{5} cfu/gram

TOTAL BACTERIA: <1 x 10^{5} cfu/gram

GMO STATUS: GMO Free

OBSERVABLE TRAITS

AROMA CHARACTERISTICS:
This strain will fully express the aroma characteristics of the grape or fruit being fermented, for a wine with heightened aromatic qualities.

FLAVOUR/MOUTHFEEL CHARACTERISTICS:
Wines made with this yeast will be richly flavoured and expressive, exhibiting good mouthfeel, texture, and palate intensity.

HIGHER ALCOHOL WINES:
Not suitable for wines above 14% ABV.

CR51

CR51

Suitable for Grenache, Gamay, Pinot Noir and more.

YEAST STRAIN DESCRIPTION

A strain suitable for red wines, especially those intended to be light, fresh and fruity. This moderate fermenting strain produces soft, velvety-smooth wines, with aromatic enhancement of red berry fruit notes.

Note: This yeast is blended with vitamins and minerals to ensure optimum fermentation. Note that supplementation with an appropriate organic or inorganic nitrogen-based nutrient regime is required when using this yeast.

TECHNICAL CHARACTERISTICS

YEAST CLASSIFICATION: *Saccharomyces cerevisiae*

NITROGEN REQUIREMENT: High

RECOMMENDED TEMPERATURE RANGE: 16 – 24°C (61 – 75°F)

OPTIMUM pH RANGE: 3.0-6.0

REHYDRATION: None required, add direct to grape must and stir well

KILLER FACTOR: Sensitive

ALCOHOL TOLERANCE: 14% ABV

VIABLE YEAST CELLS: >1 x 10^{10} cells per gram

DRY WEIGHT: 92 – 96%

WILD YEAST: <1 x 10^{5} cfu/gram

TOTAL BACTERIA: <1 x 10^{5} cfu/gram

GMO STATUS: GMO Free

OBSERVABLE TRAITS

AROMA CHARACTERISTICS:
This strain enhances fruit aromatics, particularly those of summer berries, producing wines with bright, fresh aromas.

FLAVOUR/MOUTHFEEL CHARACTERISTICS:
Wines produced using this strain will be silky-smooth and well rounded, with enhanced red berry fruit flavours.

HIGHER ALCOHOL WINES:
Not suitable for wines above 14% ABV.

VR21

Suitable for Cabernet Sauvignon, Syrah, Shiraz, Zinfandel, Grenache, Tempranillo, Sangiovese and more.

VR21

YEAST STRAIN DESCRIPTION

A strain suitable for all styles of red wine (except high alcohol wines above 15% ABV), this moderate fermenting yeast produces well-structured, well-balanced wines with enhanced dark fruit notes and good palate length. The positive organoleptic impact of this strain allows for promoting varietal fruit expression without detracting from the natural qualities of the grape.

Note: This yeast is blended with vitamins and minerals to ensure optimum fermentation. Note that supplementation with an appropriate organic or inorganic nitrogen-based nutrient regime is required when using this yeast.

TECHNICAL CHARACTERISTICS

YEAST CLASSIFICATION: *Saccharomyces cerevisiae*

NITROGEN REQUIREMENT: High

RECOMMENDED TEMPERATURE RANGE: 18 – 28°C (64 – 82°F)

OPTIMUM pH RANGE: 3.0-6.0

REHYDRATION: None required, add direct to grape must and stir well

KILLER FACTOR: Positive

ALCOHOL TOLERANCE: 15% ABV

VIABLE YEAST CELLS: >1 x 10^{10} cells per gram

DRY WEIGHT: 92 – 96%

WILD YEAST: <1 x 10^{5} cfu/gram

TOTAL BACTERIA: <1 x 10^{5} cfu/gram

GMO STATUS: GMO Free

OBSERVABLE TRAITS

AROMA CHARACTERISTICS:
This strain develops dark fruit aromatics, producing wines with fruit forward aromas.

FLAVOUR/MOUTHFEEL CHARACTERISTICS:
Wines made with this strain are full-bodied with an abundance of dark fruit flavours. This yeast is gentle on the must, so does not strip out any flavour, colour or body, rather preserving and enhancing these aspects.

HIGHER ALCOHOL WINES:
This strain shows good ethanol tolerance up to 15% ABV, producing full and fruity wines.

R56

R56

Suitable for Cabernet Sauvignon, Merlot, Malbec, Nebbiolo, Zinfandel, Tempranillo, red fruit wines and more.

YEAST STRAIN DESCRIPTION

A strain suitable for red wines which enhances body and mouthfeel, develops complex fruit flavours/aromas, and promotes structure and longevity. This moderate fermenting yeast is ideal for both new and old world styles, producing complex and interesting fruit-driven red wines.

Note: This yeast is blended with vitamins and minerals to ensure optimum fermentation. Note that supplementation with an appropriate organic or inorganic nitrogen-based nutrient regime is required when using this yeast.

TECHNICAL CHARACTERISTICS

YEAST CLASSIFICATION: *Saccharomyces cerevisiae*

NITROGEN REQUIREMENT: Low

RECOMMENDED TEMPERATURE RANGE: 18 – 28°C (64 – 82°F)

OPTIMUM pH RANGE: 3.0-6.0

REHYDRATION: None required, add direct to grape must and stir well

KILLER FACTOR: Sensitive

ALCOHOL TOLERANCE: 15% ABV

VIABLE YEAST CELLS: >1 x 10^{10} cells per gram

DRY WEIGHT: 92 – 96%

WILD YEAST: <1 x 10^{5} cfu/gram

TOTAL BACTERIA: <1 x 10^{5} cfu/gram

GMO STATUS: GMO Free

OBSERVABLE TRAITS

AROMA CHARACTERISTICS:
A strain suitable for red wines which enhances body and mouthfeel, develops complex fruit flavours/aromas, and promotes structure and longevity. This moderate fermenting yeast is ideal for both new and old world styles, producing complex and interesting fruit-driven red wines.

FLAVOUR/MOUTHFEEL CHARACTERISTICS:
This strain develops dark fruit aromatics, producing wines with fruit forward aromas.

HIGHER ALCOHOL WINES:
Wines made with this strain are full-bodied with an abundance of dark fruit flavours. This yeast is gentle on the must, so does not strip out any flavour, colour or body, rather preserving and enhancing these aspects.

SN9

Suitable for Fortified wines, High alcohol wines, Perry, Mead, Vegetable wines, Flower wines and more.

SN9

YEAST STRAIN DESCRIPTION

A general purpose strain with a relatively neutral sensory impact, suitable for almost any wine style. This fast fermenting yeast is highly robust, tolerating difficult fermentation conditions and alcohol levels up to 18% ABV.

Note: This yeast is blended with vitamins and minerals to ensure optimum fermentation. Note that supplementation with an appropriate organic or inorganic nitrogen-based nutrient regime is required when using this yeast.

TECHNICAL CHARACTERISTICS

YEAST CLASSIFICATION: *Saccharomyces bayanus*

NITROGEN REQUIREMENT: Low

RECOMMENDED TEMPERATURE RANGE: 14 – 28°C (57 – 82°F)

OPTIMUM pH RANGE: 2.9-6.0

REHYDRATION: None required, add direct to grape must and stir well

KILLER FACTOR: Positive

ALCOHOL TOLERANCE: 18% ABV

VIABLE YEAST CELLS: >1 x 10^{10} cells per gram

DRY WEIGHT: 92 – 96%

WILD YEAST: <1 x 10^{5} cfu/gram

TOTAL BACTERIA: <1 x 10^{5} cfu/gram

GMO STATUS: GMO Free

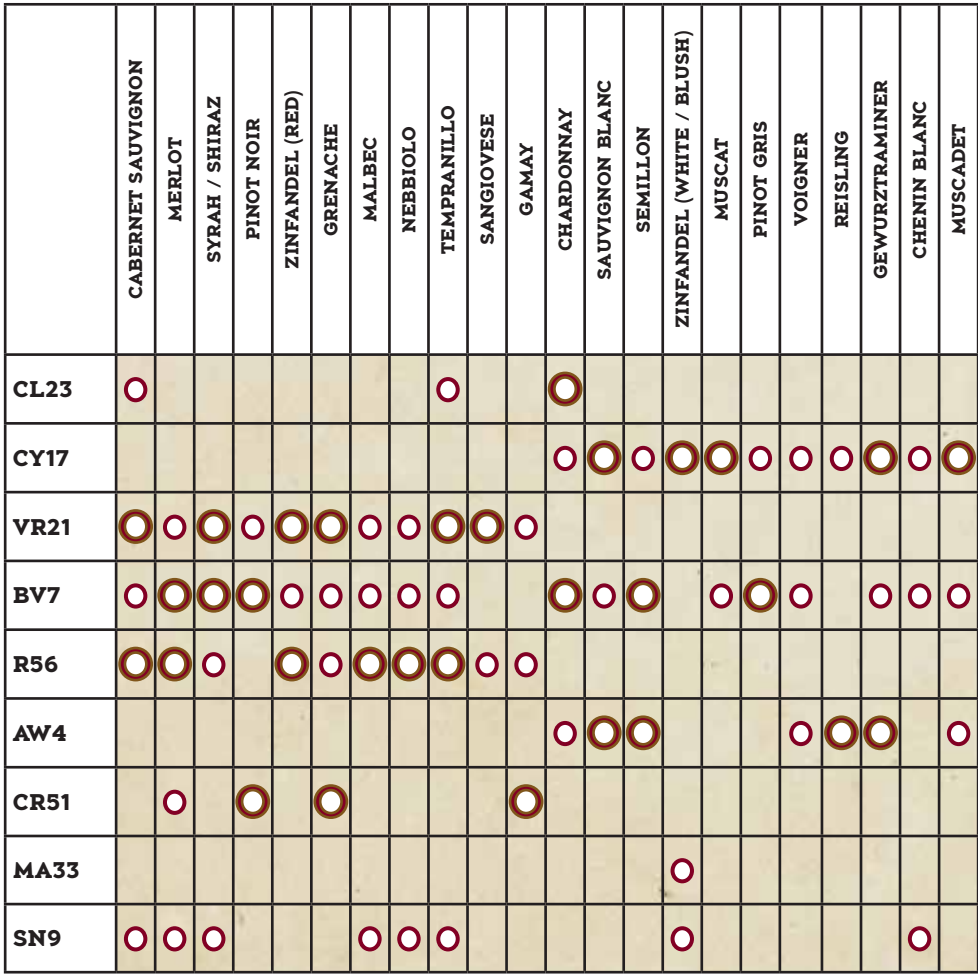
OBSERVABLE TRAITS

AROMA CHARACTERISTICS:
This strain exhibits relatively neutral sensory characteristics, so aroma would be from the grapes/fruit alone.

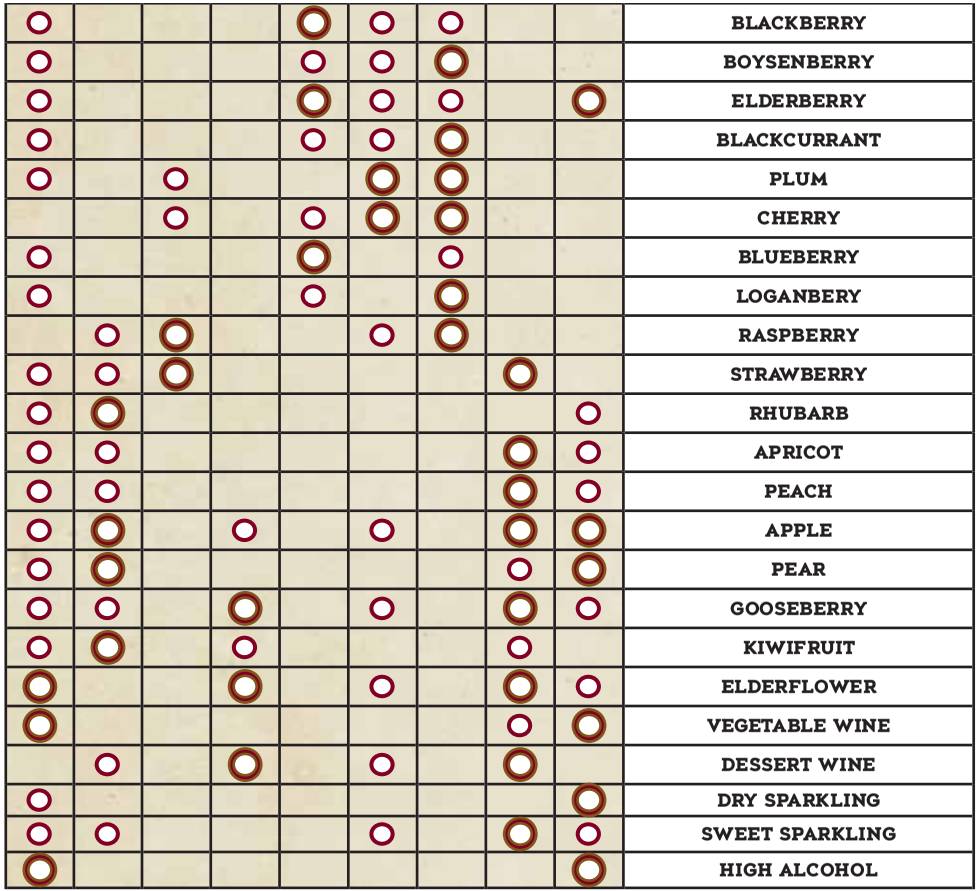
FLAVOUR/MOUTHFEEL CHARACTERISTICS:
High glycerol production allows good enhancement to mouthfeel of a wine, but impact on flavour profile is relatively low. This strain makes robust, well structured wines.

HIGHER ALCOHOL WINES:
Ideal for high alcohol wine of all styles up to 18% ABV, this sensory neutral strain balances the alcohol with a positive contribution to body and mouthfeel.

WINE YEASTS



A GREAT FIT A GOOD FIT


BLACKBERRY
BOYSENBERRY
ELDERBERRY
BLACKCURRANT
PLUM
CHERRY
BLUEBERRY
LOGANBERY
RASPBERRY
STRAWBERRY
RHUBARB
APRICOT
PEACH
APPLE
PEAR
GOOSEBERRY
KIWIFRUIT
ELDERFLOWER
VEGETABLE WINE
DESSERT WINE
DRY SPARKLING
SWEET SPARKLING
HIGH ALCOHOL

BEER YEASTS

BJCP CATEGORIES	STYLES	1ST CHOICE	2ND CHOICE	3RD CHOICE
1. STANDARD AMERICAN BEER	AMERICAN LIGHT LAGER	M84	M54	M76
	AMERICAN LAGER	M84	M54	M76
	CREAM ALE	M54	M84	M76
	AMERICAN WHEAT BEER	M44	M54	M36
2. INTERNATIONAL LAGER	INTERNATIONAL PALE LAGER	M84	M54	M76
	INTERNATIONAL AMBER LAGER	M84	M54	M76
	INTERNATIONAL DARK LAGER	M84	M54	M76
3. CZECH LAGER	CZECH PALE LAGER	M84	M76	M54
	CZECH PREMIUM PALE LAGER	M84	M76	M54
	CZECH AMBER LAGER	M84	M76	M54
	CZECH DARK LAGER	M84	M76	M54
4. PALE MALTY EUROPEAN LAGER	MUNICH HELLES	M76	M84	M54
	FESTBIER	M76	M84	M54
	HELLES BOCK	M76	M84	M54
5. PALE BITTER EUROPEAN BEER	GERMAN LEICHTBIER	M76	M84	M54
	KÖLSCH	M54	M76	M84
	GERMAN HELLES EXPORTBIER	M76	M84	M54
	GERMAN PILS	M76	M84	M54
6. AMBER MALTY EUROPEAN LAGER	MÄRZEN	M76	M84	M54
	RAUCHBIER	M76	M84	M54
	DUNKLES BOCK	M76	M84	M54
7. AMBER BITTER EUROPEAN BEER	VIENNA LAGER	M76	M84	M54
	ALTBIER	M54	M76	M84
	PALE KELLERBIER	M76	M84	M54
	AMBER KELLERBIER	M76	M84	M54
8. EUROPEAN LAGER	MUNICH DUNKEL	M76	M84	M54
	SCHWARZBIER	M76	M84	M54

9. STRONG EUROPEAN BEER	DOPPELBOCK	M76	M84	M54
	EISBOCK	M76	M84	M54
	BALTIC PORTER	M76	M84	M54
10. GERMAN WHEAT BEER	WEISSBIER	M20	-	-
	DUNKLES WEISSBIER	M20	-	-
	WEIZENBOCK	M20	-	-
11. BRITISH BITTER	ORDINARY BITTER	M36	M42	M15
	BEST BITTER	M36	M42	M15
	STRONG BITTER	M36	M42	M15
12. PALE COMMONWEALTH BEER	BRITISH GOLDEN ALE	M36	M42	M15
	AUSTRALIAN SPARKLING ALE	M36	M42	M20
	ENGLISH IPA	M36	M42	M15
13. BROWN BRITISH BEER	DARK MILD	M15	M36	M42
	BRITISH BROWN ALE	M15	M36	M42
	ENGLISH PORTER	M15	M36	M42
14. SCOTTISH ALE	SCOTTISH LIGHT	M15	M36	M42
	SCOTTISH HEAVY	M15	M36	M42
	SCOTTISH EXPORT	M15	M36	M42
15. IRISH BEER	IRISH RED ALE	M15	M36	M42
	IRISH STOUT	M15	M42	M36
	IRISH EXTRA STOUT	M15	M42	M36
16. DARK BRITISH BEER	SWEET STOUT	M15	M42	M36
	OATMEAL STOUT	M15	M42	M36
	TROPICAL STOUT	M15	M42	M36
	FOREIGN EXTRA STOUT	M15	M42	M36
17. STRONG BRITISH ALE	BRITISH STRONG ALE	M42	M36	M44
	OLD ALE	M42	M36	M44
	WEE HEAVY	M42	M36	M44
	ENGLISH BARLEYWINE	M42	M36	M44
18. PALE AMERICAN ALE	BLONDE ALE	M44	M36	M42
	AMERICAN PALE ALE	M44	M66	M36
19. AMBER AND BROWN AMERICAN BEER	AMERICAN AMBER ALE	M44	M36	M42
	CALIFORNIA COMMON	M54	M44	M42
	AMERICAN BROWN ALE	M44	M36	M42

20. AMERICAN PORTER AND STOUT	AMERICAN PORTER	M44	M36	M42
	AMERICAN STOUT	M44	M36	M42
	IMPERIAL STOUT	M44	M36	M42
21. IPA	AMERICAN IPA	M44	M66	M12
	SPECIALTY IPA - BELGIAN IPA	M31	M41	M47
	SPECIALTY IPA - BLACK IPA	M44	M66	M36
	SPECIALTY IPA - BROWN IPA	M44	M66	M36
	SPECIALTY IPA - RED IPA	M44	M66	M36
	SPECIALTY IPA - RYE IPA	M44	M66	M36
	SPECIALTY IPA - WHITE IPA	M21	M20	M12
22. STRONG AMERICAN ALE	DOUBLE IPA	M66	M42	M12
	AMERICAN STRONG ALE	M44	M42	M36
	AMERICAN BARLEYWINE	M44	M42	M36
	WHEATWINE	M42	M44	M36
23. EUROPEAN SOUR ALE	BERLINER WEISSE *	M42	M44	M36
	FLANDERS RED ALE *	M42	M44	M41
	OUD BRUIN *	M42	M44	M41
	LAMBIC *	M42	M44	M41
	GUEUZE *	M42	M44	M41
	FRUIT LAMBIC *	M42	M44	M41
24. BELGIAN ALE	WITBIER	M21	M20	M12
	BELGIAN PALE ALE	M47	M41	M31
	BIÈRE DE GARDE	M29	M41	M31
25. STRONG BELGIAN ALE	BELGIAN BLOND ALE	M47	M41	M31
	SAISON	M29	M41	M31
	BELGIAN GOLDEN STRONG ALE	M41	M31	M47
26. TRAPPIST ALE	TRAPPIST SINGLE	M47	M41	M31
	BELGIAN DUBBEL	M47	M31	M41
	BELGIAN TRIPEL	M31	M41	-
	BELGIAN DARK STRONG ALE	M31	M41	-
27. HISTORICAL BEER	GOSE *	M42	M44	M21

*** REQUIRES ADDITIONAL CULTURE FOR SOURING**

SELECTING THE RIGHT BEER YEAST

Selecting the right yeast strain for the style of beer you are wishing to brew is critical. Each yeast strain will provide the beer with different flavour characteristics as well as body and clarity. Use the table below, as well as the yeast technical notes throughout this booklet, to ensure you select the best yeast for your chosen beer style.

NAMES	FLOCCULATION	ATTENUATION	ALCOHOL TOLERANCE	RECOMMENDED TEMPERATURE RANGE
M76 Bavarian Lager	3/5	75-80%	8%	8-14°C (46-57°F)
M20 Bavarian Wheat	2/5	70-75%	7.5%	18-30°C (64-86°F)
M47 Belgian Abbey	4/5	73-77%	8%	18-25°C (64-77°F)
M41 Belgian Ale	3/5	82-92%	12%	18-28°C (64-82°F)
M31 Belgian Tripel	3/5	82-92%	10%	18-28°C (64-82°F)
M21 Belgian Wit	2/5	70-75%	8%	18-25°C (64-77°F)
M84 Bohemian Lager	4/5	72-76%	8%	10-15°C (50-59°F)
M54 Californian Lager	4/5	77-82%	9%	18-20°C (64-68°F)
M15 Empire Ale	4/5	70-75%	8%	18-22°C (64-72°F)
M29 French Saison	3/5	85-95%	14%	26-32°C (79-90°F)
M66 Hophead Ale	4/5	74-82%	10%	18-22°C (64-72°F)
M12 Kveik	5/5	77-82%	12%	20-40°C (68-104°F)
M36 Liberty Bell Ale	4/5	74-78%	9%	18-23°C (64-73°F)
M42 New World Strong Ale	5/5	77-82%	12%	16-22°C (61-73°F)
M44 US West Coast	4/5	77-85%	11%	18-23°C (64-73°F)

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