# THERE ARE INFINITE NUANCES IN


# FIND YOURS AMONG THE AEB YEASTS

DISCOVER OUR WIDE **RANGE OF SELECTED YEASTS** FOR AN OPTIMAL FERMENTATION.

AEB®

# THE CHOICE OF THE IDEAL YEAST

**Yeast** is the main subject of **alcoholic fermentation**, which is certainly the most important step in all winemaking. The choice of yeast cannot be left to chance, but must be made carefully, based on reliable data.

This is why AEB has developed the **yeast identity card***, which summarises most of the properties of the available strains and compares them with each other.

In this way, the winemaker can more accurately choose the yeast best suited to his wine and the technology he has at his disposal, based on the following data:

- **ORGANOLEPTIC CHARACTERISTICS,** denoting the influence on the wine's aromatic notes and body;
- **MORPHOLOGICAL CHARACTERISTICS,** linked to the tendency to produce foam, its mode of development, the appearance of the deposit and the adsorption of colour;
- **FERMENTATIVE CHARACTERISTICS,** namely alcohol power, latency, alcohol conversion, sugar yield and sensitivity to $SO_2$.

The data on the identity card of each yeast is also accompanied by studies of fermentations in natural and synthetic musts with different levels of YAN.
The maximum speed, average speed and regularity of fermentation at three different temperatures were evaluated.

Rehydrate the yeast in

**10 PARTS**

of warm sugared water

Maximum

**38°C**

For

**20-30 MINUTES**

30

**IT IS RECOMMENDED**

Add the nutrient **Fermoplus Energy Glu 3.0,** in the reactivation water in a

**1:4**

ratio with the yeast.

Tests showed that with the nutrient **Fermoplus Energy Glu 3.0** the number of yeast cells **INCREASED BY ABOUT**

**30%**

6 hours after reactivation.

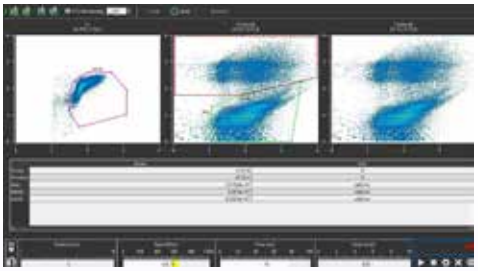
* Yeast identity cards are provided by our sales engineers according to customer requirements.

# RESEARCH AND QUALITY
## YEAST SELECTION FOR AEB

The AEB Group has many years of experience and strong know-how in the use of yeasts in oenology. This experience has given rise to a very restrictive Quality Control, developed by our R&D department in collaboration with prestigious research institutes. Research and Development **department in collaboration with prestigious research institutes:** the checks take into account both current regulations and fermentation performance. An established process that includes **chemical, microbiological and functional analyses.** AEB's wide range of yeasts are distinguished by their ability to **bring out the precursors present in the grapes**, to produce varying quantities and proportions of fermentation esters and acetates, to synthesise glycerine, acids, mannoproteins and other specific characteristics. All the selected yeasts possess high technological characteristics and produce extremely limited quantities of compounds that can interfere with the quality of the wine.

## FUNCTIONAL ANALYSES AND CELL VIABILITY

Alongside the chemical and microbiological controls required by regulations, we have developed functional analyses in view of the fermentation end application. **Our controls go beyond simple cell viability,** as they also examine dead cells, the ratio of which to live cells is **an important indicator of the quality of the yeast production process.**
The checks carried out by AEB are very restrictive, as they take as a minimum parameter of viable cells at least double the number of cells required by the current legislation.



*Detailed graph showing yeast counts and cross-referencing FSC and SSC data.*
***FSC (Forward Scatter):*** *descriptive parameter of yeast cell size.*
***SSC (Side Scatter):*** *descriptive parameter of the complexity of the cell membrane.*

***Cytofluorometer:*** *instrument for quantifying yeast cell concentration.*

**LEARN MORE ABOUT QUALITY CONTROL OF YEASTS**

**WATCH OUR VIDEO**

## ANALYSIS AND CONTROL OF THE GENETIC PROFILE OF YEASTS

- **PCR** - *Polimerase Chain Reaction*: evaluation of DNA following an enzymatic reaction that amplifies its signal.
- **RFLP** - *Restriction Fragment Length Polymorphism:* analysis of restriction fragments of the PCR product for species-level identification and discrimination within the *Saccharomyces* genus.
- **PFGE** - *Pulsed Field Gel Electrophoresis:* determination of the number and size of chromosomes separated from each other by application of pulsed field electrophoresis on agarose gels.

On some white wine yeasts, we also evaluate the ability to produce riboflavin using an enzymatic method.

# OUR RANGE OF SELECTED YEASTS FOR EACH TYPE OF WINE

## YEASTS FOR WHITE WINES

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| **LEVULIA Esperide** C<br>*Selected by the Loira Valley IFV pole.* | Born from hybridisation, it combines the interesting characteristics of the two pre-selected strains. It has a more amyl aromatic tendency, favouring the production of fermentation aromas, esters and acetates (floral, pear, strawberry) and the revelation of varietal thiols. |
| **FERMOL Aromatic** C<br>Reference PB2540 | It produces a considerable amount of fermentation aromas, making it the ideal yeast for neutral varieties and young wines. Its very regular sugar consumption kinetics facilitate the control of fermentation temperatures. |
| **FERMOL Arôme Plus** C<br>Reference PB2010 | It enables the creation of wines with very intense aromas, accentuates floral notes and produces wines with an elegant taste supported by good acidity. Excellent resistance to alcohol and $SO_2$ and ability to initiate AF even at low T°. |
| **FERMOL Bayanus Lipari** B C | It produces straw yellow wines, increasing their body and taste balance. Gives a fresh aroma with notes of summer, red and tropical fruit. Ensures excellent fermentation kinetics even in wines with higher alcohol contents. |
| **FERMOL Blanc** B<br>Reference PB2019 | It enhances fruit notes in a balanced manner. It produces full-bodied and harmonious wines. Its cryophilicity makes it ideal for prestigious white wines, and for balanced, fresh yet complex sparkling wine bases. |
| **FERMOL Bouquet** C | A good producer of glycerine, it gives the wine a pleasant smoothness. It is appreciated for its ability to accentuate primary and floral aromas, and enhances the terpenic notes of grapes from climates that are not too hot. |
| **FERMOL Chardonnay** C<br>Reference PB2585 | It enhances ripe and exotic fruit notes. Thanks to its high production of mannoproteins, it produces full-bodied and harmonious wines. Its pronounced cryophilicity makes it ideal for prestigious white wines, obtained by cold maceration or aged in barriques. |
| **FERMOL Cryoaromae** U<br>Reference PB2007 | A strongly cryophilic strain that emphasises varietal characteristics, especially in wines obtained by cold maceration. It produces numerous valuable secondary aromatic compounds: it increases glycerine, total acidity and enhances the rose note (2-phenylethanol acetate). |
| **FERMOL Fleur** C<br>Reference PB2171<br>*Selected by the IFV of Nantes.* | Thanks to its low consumption of Malic Acid, it preserves the natural freshness of the original grape variety; it is therefore ideal for AF of musts from hot areas or where acidity is an important discriminating value. It brings out white flower, balsamic and menthol notes. |
| **FERMOL Iper R** C<br>Reference PB2870<br>*Selected and controlled by the Department of Agricultural Sciences of the University of Modena and Reggio Emilia (Italy).* | It releases and transforms the sulphurised aromatic precursors present in the grapes and preserved mainly by hyper-reduction. Aroma profile: complex and rich in floral and tropical fruit nuances (passion fruit, pineapple, grapefruit, sage and box buds). |
| **FERMOL Lime** C<br>Reference PB2101<br>*Selected by the IFV of Nantes.* | Thanks to its low consumption of Malic Acid, it preserves the natural freshness of the original grape variety; it is therefore ideal for musts from hot areas or where acidity is an important discriminating value. Reminiscent of citrus aromas, with notes of aromatic herbs. |
| **FERMOL PMD53** C<br>Reference PB2053 | It enhances musts obtained from neutral grape varieties (e.g. Trebbiano, Malvasia, Greco) in which it emphasises the intense fruity notes that persist during ageing. Thanks to its low consumption of Malic Acid, it is suitable for AF of musts from warm areas or where acidity is a discriminating factor (Riesling, Semillon, Traminer). |
| **FERMOL Sauvignon** C<br>Reference PB2530 | It enhances thiols notes (4-mercapto-4-methyl-pentan-2-one), bringing out the aromas of aromatic herbs, white flowers and nettle. It enables wines of considerable olfactory intensity to be obtained; it is therefore suitable for Sauvignon and in general for whites obtained from ripe grapes, rich in precursors. |
| **FERMOL Tropical** C<br>Reference PB2121<br>*Selected by the IFV of Nantes.* | Thanks to its low consumption of Malic Acid, it preserves the natural freshness of the original grape variety; it is therefore ideal for AF of musts from warm areas or where acidity is an important discriminating value. Its bouquet can be traced back to summer and tropical fruit, with hints of sage. |

# OUR RANGE OF SELECTED YEASTS FOR EACH TYPE OF WINE

## YEASTS FOR ROSÉ AND LIGHT RED WINES

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| **FERMOL Candy** (C)<br>*Selected by the Loira Valley IFV pole.* | Hybrid yeast strain, develops fermentation aromas and improves the organoleptic profile by imparting amyl notes and aromas reminiscent of candy and yellow fruits. Can be used for the AF of musts from cold pre-fermentative maceration; ideal for rosé wines. |
| **FERMOL Cryophile** (U)<br>Reference PB2570 | The cold pre-maceration technique involves cooling the crushed red grapes down to 5°C. Selected under these conditions, Cryophile is capable of producing high quantities of glycerine and enhancing the varietal aroma of cold macerated red wines. |
| **FERMOL MPF** (C) (U)<br>Reference PB2032 | Ideal for modern winemaking technologies conducted at low T° (<16°C), aimed at obtaining wines with intense, lively colours and a fresh, fruity profile. It enhances the primary aromas of the grapes, especially strawberry, fresh berries and releases sensations of citrus peel. |
| **FERMOL PB2033** (C)<br>Reference PB2033 | Suitable for rosé and young wines with high colour intensity and a complex range of floral and fruity aromas. It ferments in a wide range of T° (12-34°C) and has very regular kinetics, which makes it easy to control the T° of AF. |
| **FERMOL Primeurs** (C)<br>Reference PB2015 | It produces several esters with a pleasant fruity aroma (which increases when there is a good dose of YAN); the esters integrate well with the typical aromas of carbonic maceration. It has a short lag-phase that allows it to quickly take over the indigenous microflora. |
| **FERMOL Red Bouquet** (C)<br>Reference PB1264 | Suitable for rosé and intense wines. It is therefore ideal for musts from warm areas or where acidity is a discriminating value. It gives delicate floral notes of black cherry, blackberry and plum. Thanks to its low consumption of Malic Acid it preseves the natural freshness of the original grape variety. |
| **FERMOL Red Fruit** (C)<br>Reference PB2018<br>*Selected and controlled by the Department of Agricultural Sciences of the University of Modena and Reggio Emilia (Italy).* | Developed from the hybridisation of two strains (Fermol Iper R and PB2033), it is ideally suited for use in highly stressful medium conditions. Thanks to its low demand for activators, it is suitable for musts poor in nutrients; it enhances aromatic notes such as blueberry, currant, raspberry. This yeast is also perfect for structured red wines with great mouthfeel. |
| **FERMOL Rouge** (C)<br>Reference PB2027 | Due to its vigour and resistance, it quickly prevails over the indigenous flora. Compared to other ADYs, it produces wines with a higher average colour intensity, as it has a limited ability to fix the colouring substances extracted during maceration. Ideal for young and medium-aged wines with intense red fruit aromas and good structure. |

## YEASTS FOR STRUCTURED AND AGEING RED WINES

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| **FERMOL Clarifiant** (C)<br>Reference PB2023 | An ideal varietal strain for full-bodied reds, which favours the extraction of the typical aromas of the cultivar and enhances the great aromatic complexity of fine wines. In trials with Clarifiant, a higher colour intensity (up to 17%) and a higher anthocyanin content (>14%) were observed compared to the witnesses. |
| **FERMOL Grand Rouge** (C)<br>Reference PB2705<br>*Isolated by the Enological Research Institute of Navarra and selected by the Department of Agricultural Sciences of the University of Modena and Reggio Emilia (Italy).* | Ideal for reducing indigenous microflora because it is naturally prevalent (limited use of $SO_2$). It has excellent characteristics: short lag-phase, low nutritional requirements, excellent resistance to alcohol and high T°. Enables the creation of clean wines with a good tannic structure. |
| **FERMOL Mediterranée** (C)<br>Reference PB2590 | Suitable for warm, full-bodied red wines suitable for ageing. Thanks to the high production of polysaccharides and mannoproteins, it harmonises the taste, stabilises the colour and tannic structure. It amplifies sweet notes reminiscent of ripe figs and small red fruits (currants and cherries). |
| **FERMOL Premier Cru** (C)<br>Reference PB2031 | Reference strain for the production of high-end red wines. It has an extremely limited $H_2S$ production and therefore develops intense and clean aromatic notes. It produces significant quantities of glycerine and polysaccharides, and is reminiscent of berries, spices, herbs and small red fruits. |
| **LEVULIA T.P.CO** (C)<br>Reference PB2515 | Thanks to the improved extraction of total polyphenols, it produces balanced ageing wines with a more intense and stable colour. It enhances fruity (cherry) and spicy notes. Its great acclimatisation capacity and low nitrogen consumption make it ideal for safe AF even with a high alcohol content and low $SO_2$ and volatile acidity production. |

# OUR RANGE OF SELECTED YEASTS FOR EACH TYPE OF WINE

## YEASTS FOR SPARKLING WINES

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| **FERMOL Charmat** (B)<br>Reference PB2051 | It has exceptionally high AF speed and does not cover the varietal aroma. Its low nutritional requirements, high alcohol content and pronounced cryophilicity make it particularly suitable for prise de mousse in autoclaves or in bottles. Excellent results have also been obtained in the treatment of stuck fermentations. |
| **FERMOL RCH** (B)<br>Reference PB2002 | Selected for classic method fermentations; also suitable for refermentations. It accentuates fruity-floral notes, has a good ability to produce glycerine and acetates, is cryophilic and possesses a good flocculating and agglomerating power that facilitates remuage |
| **LEVULIA Agglo** (B) | A specific agglomerating yeast for the production of sparkling wines. Thanks to its ability to settle naturally, it facilitates filtration and bottling in autoclaves, and allows optimisation of remuage times. Agglo has regular fermentation kinetics and ferments all sugars at low temperatures. |
| **LEVULIA Cristal** (B)<br>*Authorised and certified by the Comité Interprofessionnel du vin de Champagne.* | Specifically for the elaboration of fine and elegant sparkling wines, ideal in both primary AF and bottle refermentations. In AF it guarantees complete sugar depletion and has a low production of volatile acidity and foam. While in AF it ensures a good fermentation restart and good alcohol resistance. It is suitable for the preparation of pied de cuve. |
| **PERLAGE BB** (B) | Its excellent fermentation capacity, low nutritional requirements, alcoholic strength and cryophilic character make it ideal for the production of sparkling wine bases and for prise de mousse. It is particularly suitable for the fermentation of white varieties such as Chardonnay, Pinot Bianco, Prosecco, Riesling and Muller-Thurgau. In fact, it enhances the fresh, acidic and weakly sulphur-rich notes that give rise to wines with a profile that is not too open, but ideal for obtaining floral, pleasantly fruity, harmonious and well-holding aromas in second fermentation. |

## NON-*SACCHAROMYCES* YEASTS

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| **LEVULIA Alcomeno** (LT)<br>*Selected in Burgundy in collaboration with the Université de la Vigne et du Vin in Dijon.* | | Alcomeno responds to the growing interest in the inoculation in succession or co-culture of *Saccharomyces* and non-*Saccharomyces* yeasts. This strain is capable of affecting the organoleptic aspect of wines and has a great impact on analytical values due to the very low sugar to alcohol conversion index in favour of lactic acid production, with a consequent increase in total acidity due to the high lactic acid production. |
| **LEVULIA Pulcherrima** (MP)<br>*Selected in Burgundy in collaboration with the Université de la Vigne et du Vin in Dijon.* | | Originating from a microbial ecology research programme that has enabled the isolation of various non-*Saccharomyces* yeast species, this yeast of the *Metschnikowia Pulcherrima* species is naturally present on grape skins. It contributes, right from the alcoholic pre-fermentation phase, to the organoleptic complexity of the wine by enhancing its varietal aromas. |
| **LEVULIA Torula** (TD) | | Organic certified, it contributes to aromatic complexity, limits the development of volatile acidity-producing species and reduces astringent notes. It is ideal for both bioprotection and the first part of the fermentation phase, assisted by a sequential inoculation of *S. cerevisiae*. It is suitable for different grape varieties, both terpenic and thiol. |

PHYSIOLOGICAL RACE

- (C) *Saccharomyces cerevisiae r.f. cerevisiae*
- (B) *Saccharomyces cerevisiae r.f. bayanus*
- (U) *Saccharomyces cerevisiae r.f. uvarum*
- (MP) *Metschnikowia pulcherrima*
- (LT) *Lachancea thermotolerans*
- (TD) *Torulaspora delbrueckii*

ORGANIC certified

# OUR RANGE OF SELECTED YEASTS FOR EACH TYPE OF WINE

## MULTIPURPOSE YEASTS

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| **FERMOL Associées** B C<br>Reference PB2003 | Multi-strain preparation for regular and complete fermentations even in difficult situations. The resulting wines have complex and intense aromas, as the combination of two yeasts releases a much wider range of aromatic precursors. |
| **FERMOL Complet Killer Fru** B<br>Reference PB2024 | Extremely versatile, suitable both for primary AF and in case of stuck fermentation or alcohol correction. Rapidly consumes fructose, which normally resides more in wines that have undergone stuck fermentation. Ideal for neutral white wines, where it is able to amplify floral and fruity notes. |
| **FERMOL Cryofruit** U<br>Reference PB2021<br>*Selected and controlled by the University of Modena and Reggio Emilia (Italy).* | It has a marked tendency to produce large concentrations of glycerine, which brings softness to the wine. It can be used on both white and red musts, imparting taste sensations devoid of aggressiveness, often present on grapes that have not reached phenolic maturity. |
| **FERMOL Davis 522** C<br>Reference UDC522 | An extremely versatile strain suitable for both white and red wines. Thanks to its high multiplication rate, it quickly prevails over the indigenous microflora and enables AF to be completed in a short time. It is resistant to high $SO_2$ contents and does not interfere with the aromatic characteristics of the grape variety. |
| **FERMOL Elegance** C<br>Reference PB2012 | Obtained from natural hybridisation, it is characterised by excellent fermentation kinetics and the breadth of the aromatic range, which is particularly appreciated in all denomination of origin wines in which the terroir is valued. It accentuates citrus, floral and herbal notes. |
| **FERMOL Killer** C<br>Reference PB2307 | Having a short latency phase, it is the most suitable remedy when sufficient must cleaning cannot be achieved. Its excellent resistance to $SO_2$ and high T° ensures good results under all conditions. The resulting wines have a fresh and lively aroma. |
| **FERMOL Power** C<br>Reference PB2014 | It optimally utilises the nitrogen availability of the musts, thus maintaining high metabolic activity even under critical conditions. The wines obtained have pleasant varietal notes that stand out in an aromatic context with low volatile acidity. The strain, which has also been tested for white wines, offers its best results in premium reds. |
| **FERMOL Rouge Bayanus** B<br>Reference PB2770 | It has excellent proven performance in AF; it guarantees, even in the most extreme cases, complete sugar depletion. It is therefore ideal in red AF where T° is to be kept below 18°C. The wines obtained are fine and elegant and accentuate the red fruit notes. |
| **FERMOL Super 16** C<br>Reference PB3084 | It reaches high alcohol contents and produces perfumed wines with ripe fruit notes. It demonstrates high fermentation activity even under extremely difficult conditions (34°C and 17% alc.): it is therefore ideal for structured reds with low volatile acidity. It gives excellent results in the fermentation of sugar-rich musts such as those obtained from overipe. |
| **LEVULIA Probios** B<br>*Tested and validated in Champagne in collaboration with the Comité Interprofessionnel du vin de Champagne.* | Organic certified, it has excellent fermentation capacity, even under difficult conditions of pH, temperature and alcohol. It is ideal for the vinification of base wines and for prise de mousse. It safeguards AF thanks to the total consumption of sugars and has a very low production of unwanted by-products. |

DISCOVER THE FULL RANGE OF AEB YEASTS

## CERTIFIED QUALITY

CERTIFIED MANAGEMENT SYSTEMS
CQY CERTIQUALITY
UNI EN ISO **9001:2015**
UNI EN ISO **14001:2015**
UNI ISO **45001:2018**
UNI EN ISO **22000:2018**

**Ours is a range of over 50 yeasts, the result of constant evolution and innovation.**
Being able to offer wineries such a choice means favouring the intrinsic characteristics of the grape variety, preserving them in the wine in order to make them perceptible to the final consumer, who will thus appreciate the effort made by the winegrowers in producing a quality grape, the fruit of the earth's cultivation.
We invest every year in the evolution of oenological research on a global level: our yeasts are the result of in-depth and accurate research carried out in collaboration with oenologists, agronomists, researchers and technical experts from the most prestigious research centres and universities around the world.
**Sustainability and innovation represent an inseparable and winning combination for us, as much in the study and research of new solutions as in the yeast production process itself.**

## YEAST, A NATURAL PRODUCT

The production of our yeasts **follows high standards of sustainability and quality** right from the selection of raw materials.

**Our yeasts and substrates used in the multiplication phase are free of GMOs and all EU-listed allergens,**
as provided for in Regulation (EU) No 1169/2011 as amended.

GMO FREE

Not just that:
**no palm oil is used in their production process.**

PALM OIL FREE

AEB USA - 111 N Cluff Avenue, Lodi, CA 95240
Tel: +1 209 625 8139 - info@aebusa.com - www.aeb-group.com

AEB®