Wine Yeast
Saccharomyces cerevisiae

Yeast for producing aromatic white wines, particularly suited to ageing on lees.

Origin
Strain n° 4F9 isolated and selected in the region of Nantes (France) by the Centre Technique Interprofessionnel de la Vigne et du Vin (ITV France).

Application
Fermicru® 4F9 allows the winemaker to obtain aromatic whites and rosé wines. This strain is particularly recommended for ageing on lees. Fermicru® 4F9 favours the production of fine, perfectly balanced (round and full) wines with characteristic fruity and floral aromas. This strain gives great results on several varieties including Chenin, Chardonnay, Sauvignon…

Wine making qualities
- Fermentation kinetics
  - Short lag phase.
  - Fast and steady fermentation.
- Sugar/alcohol yield
  - 16.3 g sugar for 1 % alcohol.
- Technical characteristics
  - Optimum temperature range: 15 to 25 °C, (59 to 77 °F).
  - Alcohol tolerance: 15.5 % vol.
  - Resistance to free SO₂: 50 mg/l.
  - Average production of foam.
- Metabolic characteristics
  - Low volatile acidity production, generally less than 0.15 g /l.
  - Average glycerol production, generally 5 to 7 g/l.
  - Average acetaldehyde production.
  - Does not produce any SO₂.
  - Very low H₂S production.

■ Increases the thiol type varietal aromas (3-mercapto-1-hexanol and its acetate ester) concentration from grape precursors.

■ Releases important quantities of manoproteins.
  Allows the production of full wines with great mouthfeel.

■ The use of an adapted yeast nutrient may allow to reach alcohol levels higher than 15.5 %.

■ Phenotype: killer.

Dosage
Fermicru® 4F9 contains 10 billion active dried yeast cells per gram.
Recommended dose: 20 g/hl (= 2 lbs/M).

Packaging
Fermicru® 4F9 is vacuum-packed in 500 g sachets. It must be stored in a cool (5 - 15 °C, 41 - 59 °F) dry place, sealed in its original packaging.
How to use

Inoculate 50 hl (1000 gal) of must at a dosage rate of 20 g/hl (2 lb/1000 gal)

Re-hydrating the yeast

In a clean bucket put 10 l (3 gal) of drinking water at a temperature of 35 to 38 °C (95 - 100 °F). Avoid using chlorinated water.

Add 500 g (1 lb) of sugar or 4 l (1 gal) of warmed must, stir well. Yeast will rehydrate best and start growing in a 5 % sugar solution.

Gradually pour 1 kg (2 lb) of yeast into the rehydration solution, continuing to stir vigorously to maintain the yeast cells in suspension.

Leave the yeast to swell for 30 minutes, stirring frequently. A strong smelling foam will be produced, indicating that the yeast has started to re-activate.

Incorporating the yeast to the must

In order to avoid the proliferation of unwanted microorganisms, the yeast should be incorporated as soon as possible after the rehydrating phase is complete.

To avoid temperature shock, gradually lower the rehydrated yeast temperature by adding must in several steps until the temperature of the final must is reached.

Add the yeast when filling the must into the tanks. Pumping over will evenly distribute the yeast in the tank.

Fermentation management

- **Daily check**
  Decrease in specific gravity (or Brix) to ensure a healthy progression of fermentation.

- **Temperature monitoring**
  It is of capital importance to respect the temperature limits provided on the product sheet.

- **At mid fermentation (16 to 14 Brix - 1060 to 1040 specific gravity)**
  Pumping over with air will provide the yeast with vital oxygen and prevent fermentation problems. At this stage oxygen doesn't affect wine aroma and there is no risk of oxidation.
  The addition of MAXAFERM®F a fermentation bio-regulator, combining inactivated yeast, thiamin and ammonium salts, will provide the yeast with nutrients and allow to complete fermentation.

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