



No Brett Inside®



A new tool to fight against *Brettanomyces* and preserve the aromatic qualities of wines

ORIGIN AND APPLICATION

Brettanomyces bruxellensis are a threat to wine quality. These yeasts are capable of developing in difficult conditions (high alcohol, nutritional deficiencies, high SO₂), at all stages of vinification and are responsible for the production of undesirable aromatic compounds: volatile phenols (4-ethyl-phenol, 4-ethyl-guaiacol, 4-ethyl-catechol). These compounds give rise to the perception of unpleasant 'animal-like' notes (leather, stable, barnyard) or pharmaceutical notes (Band-Aid®, medicinal)...

Even at low population levels (1 to 1000 CFU/mL), *Brettanomyces* constitute a threat, as they can produce these volatile phenols at any moment. Even when the concentrations of these phenols are low or below perception thresholds, they can mask the wine's bouquet and compromise its varietal expression, and its intensity. In many regions, the volume of wine affected by *Brettanomyces* is relatively significant.

Currently, different preventive means are implemented to fight against *Brettanomyces*:

- Good management of SO₂ related to the wine pH
- Optimized alcoholic and malolactic fermentations
- Lees management
- Barrel hygiene and storage

But these means are not always effective. **No Brett Inside®** (chitosan of fungal origin) represents an innovative and efficient tool to fight against *Brettanomyces*.



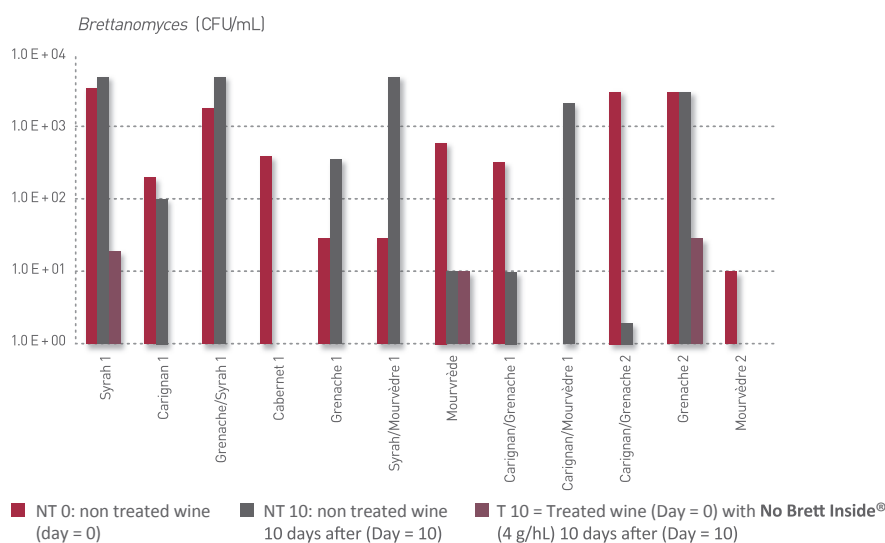
OENOLOGICAL PROPERTIES

- **No Brett Inside®** is a natural polysaccharide extracted from a fungal source of chitin (*Aspergillus niger*).
- **No Brett Inside®** interacts with *Brettanomyces* causing their elimination from the wine.
- Many scientific studies have shown the effectiveness of **No Brett Inside®** against *Brettanomyces*.
- Many winery trials have validated the effectiveness of treatment with **No Brett Inside®** on *Brettanomyces* in large volumes.
- Once in contact with the soil, chitosan is digested by microorganisms that transform it into soluble metabolites, for safe disposal.
- Numerous chitosan applications are referenced in the fields of agriculture, food, cosmetics and medicine. The fungal origin of **No Brett Inside®** ensures oenological applications are free from any labelling requirements regarding animal origins or allergens.
- Accepted as a new practice by oenological codex in July 2009 by the OIV (Organisation Internationale de la Vigne et du Vin),
- Allowed by the European Union in December 2010,
- Original and patented method developed by the company KitoZyme.



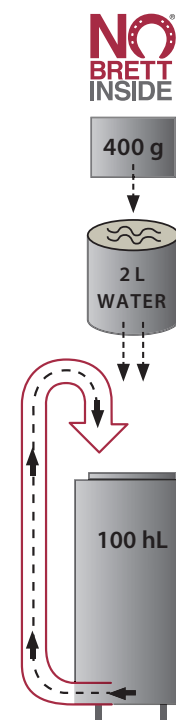
INSTRUCTIONS FOR USE

No Brett Inside®: an effective new preventing tool against *Brettanomyces*.



Large scale trials were carried out from 2008-2010

- Recommended dosage: 4 g/hL. Maximum authorized dosage: 10 g/hL
- **No Brett Inside®** is insoluble and must be suspended in water or wine, before adding to the wine at a dose of 4 g/hL.
- Introduce **No Brett Inside®** into the wine at the top of the tank and mix thoroughly the whole volume of the tank.
- We recommend that after 10 days of contact time, the treated wine should then be racked and separated from its lees.
- Winery trials in Tuscany, Burgundy and Australia with extended contact times of up to 9 months of **No Brett Inside®** in barrels are yet to raise any concerns.
- This extended contact is not recommended for wines highly contaminated ($> 10^4$ CFU/mL) with *Brettanomyces*. The objective here should be to remove the *Brettanomyces* culture from the wine.
- **No Brett Inside®** will not remove volatile phenols already present in the wine.
- The application time is after malolactic fermentation.



PACKAGING AND STORAGE

- No Brett Inside® comes in the form of a fine, light-colored beige powder.
- 100 g packs.
- Store in a cool and dry place.

The information herein is true and accurate to the best of our knowledge; however, this data sheet is not to be considered as a guarantee, expressed or implied, or as a condition of sale of this product.



WINE YEASTS



WINE BACTERIA



NUTRIENTS / PROTECTORS



SPECIFIC INACTIVATED YEASTS



ENZYMES



CHITOSAN



VINEYARD SOLUTIONS



LALLEMAND OENOLOGY

Original by culture