

PLANTIS: THE ALTERNATIVE TO FINING AGENTS OF ANIMAL ORIGIN

In recent years, the wine industry's research in the field of clarification aids is increasingly aimed at investigating alternatives to the classic use of proteins from animal origin. The aim is to produce high-quality wines that are equivalent to traditional methods used and satisfy the growing demands from vegan and vegetarian consumers.

ESSENTIAL REQUIREMENTS FOR AN EFFECTIVE FINING AGENT

1

Ensure fast and efficient clarification of juice (both static and flotation), minimizing lees content.

2

Reduce oxidized color of must (OD at 420nm). Remove oxidized or easily oxidizable phenolic substances.

3

Reduce heavy metals such as iron and copper that are catalysts in oxidation reactions.

4

Improve flavor balance.

Innovation and continuous research have enabled Enartis to create PLANTIS, a range of plant protein-based fining agents that obtain optimal results, guaranteeing the elimination of undesirable compounds from the earliest stages of clarification in juice. The PLANTIS range includes three different formulations of vegan clarification aids which are based on pea protein, allergen-free, specific for juice clarification, whether static or flotation.

- **PLANTIS AF:** Pure pea protein capable of accelerating floc formation.
- **PLANTIS AF-L:** Liquid formulation of pea protein that makes its application efficient and easy.
- **PLANTIS AF-Q:** A blend composed of pea protein boosted with Enartis chitosan.

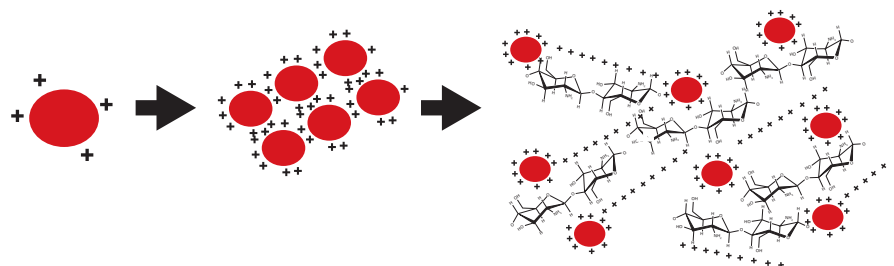
Two characteristics make this product unique:

- The synergy between hydrolyzed pea protein and chitosan optimizes its clarifying action.
- The high charge density for achieving maximum reactivity.

Pure protein

Protein after controlled hydrolysis process

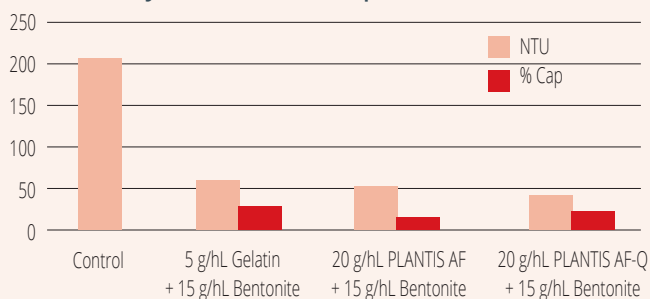
Hydrolyzed protein boosted with chitosan



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1 IMPROVE CLARIFICATION BY MINIMIZING THE % OF SUSPENDED SOLIDS

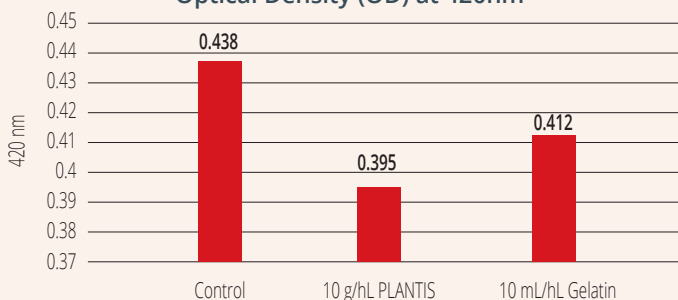
PLANTIS Ensures Fast Clarification (turbidity of must and % cap 1 hour after flotation)



PLANTIS ensures efficient clarification, maximizing must yield.

2 REDUCTION OF OXIDIZED COMPOUNDS

Optical Density (OD) at 420nm

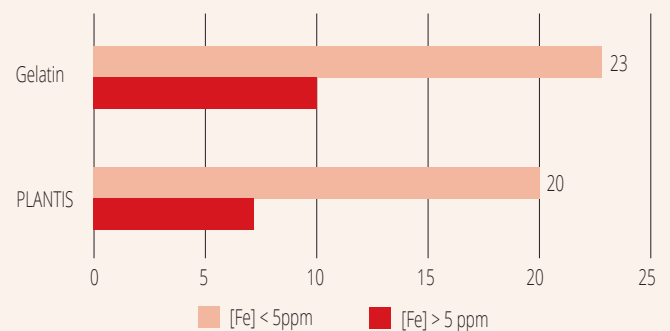


Use of the PLANTIS range for juice clarification reduces the characteristic yellow/brown color that comes from the oxidation of wine compounds.

If these oxidized or oxidable compounds are not properly removed during must clarification steps, wines are more bitter with lower longevity and shelf-life. PLANTIS also helps reduce catechins and total polyphenols in must.

3 REDUCE HEAVY METALS

% [Fe] reduction



Depending on the iron concentration and pH, PLANTIS can reduce up to 20% of the iron in juice, a comparable result to using gelatin.

4 SENSORY EFFECT

The PLANTIS range helps winemakers obtain wines which are characterized by:

- Brighter and less oxidized color tones
- Better shelf-life
- Improved aromatic cleanliness
- Reduced sensations of bitterness and astringency

enartis

Inspiring innovation.

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