PLANTERIA® BF FIXOLOR® AT
IN PEACH ICED TEA

Handary
SHELF LIFE

KEY BENEFITS

- Yeasts, Molds TPC Inhibition;
- Increases Anthocyanin (color) stability;
- Maintain freshness and authentic appeal;
- Cost effective;
- Shelf-life extension;
- Clean Label;

	Fixolor® AT	Plantéria® BF
Code	0901	0702
Registration Number	Clean Label	Clean Label
Organoleptic impact	Slightly Acidic	No Impact
Source	Non-GMO, renewable	Non-GMO, renewable
Thermal Stability	Up to 70°C	Up to 200°C
Applicable pH	3-6	5.5-8
Recommended dosage	0.5-0.7 % (w/w)	2.5-5 g/kg
Packing Size	1L, 20L	0.5KG, 10KG
Appearance	Clear Liquid	Off-White Powder
Labelling	Cultured Sugarcane	Berry Fruit Extract
Solubility	Water Miscible	Water Soluble

NATURAL ANTIMICROBIAL AND COLOR STABILIZER IN PEACH ICED TEA

As consumers become more conscious about the ingredients in their food and drinks, there is a growing demand for natural and sustainable products, leading to a rejection of synthetic preservatives. In fact, a report by a global consumer trend forecasting company has found that the new generation of consumers are seeking clean, sustainable, and socially responsible beverage brands to quench their thirst.

To meet this demand, new ways of preserving beverages naturally have emerged. Handary, a company specializing in natural food protection solutions, has discovered that plant-based products offer the potential to extend the shelf-life of beverages without affecting their flavor, color, or aroma. Handary's solutions also help improve the microbial stability of beverages during and after production.

One popular beverage trend is iced tea, which is now available in various fruit flavors in supermarkets. However, these types of applications often encounter problems with yeast, molds, and bacteria. To address this issue, Handary has developed a complete solution using Fixolor® AT and Planteria® BF, which work synergistically with the formulation to safely extend the shelf-life of the final tea product, while preserving its quality and taste.

OUR BRANDS

FIXOLOR® AT
Cultured Sugarcane

PLANTERIA® BF
Citrus Fruit Extract

CASE STUDIES

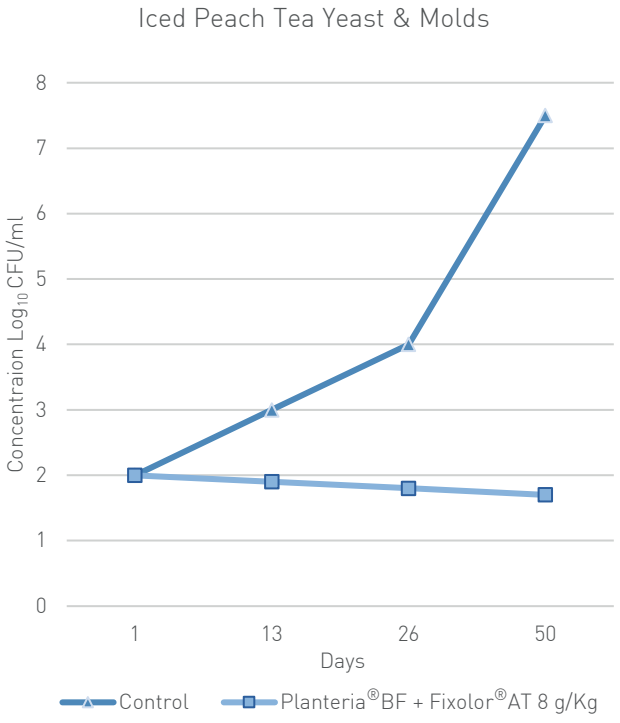
Bacteria, such as *Alicyclobacillus acidoterrestris,* can thrive in environments with high water activity and a broad temperature range of 20 to 70°C, even with restricted oxygen supply (pH 3.5–4.5; temperature 35–53°C). This type of microbe can also grow in products such as peach tea, where it may not produce gas, making spoilage difficult to detect until the end of the food chain. This can result in consumer complaints, product withdrawal, and economic loss.

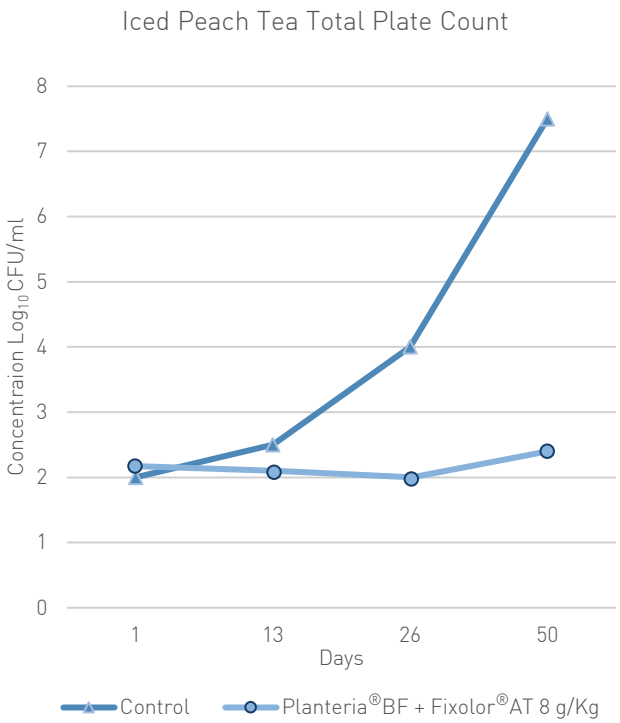
In this case study, we aimed to evaluate the effectiveness of using Planteria® BF and Fixolor® AT in inhibiting the growth of Total Plate Count and Yeast and Molds in an iced peach tea application. By using these natural preservative solutions, we can help prevent bacterial growth and extend the shelf life of the product.

PLANTERIA® BF & FIXOLOR® AT: PEACH ICED TEA SHELF-LIFE EXTENSION

During the experiment, microbial analysis was conducted for Total Plate Count and yeast and molds, which showed minimal to no detection of both bacteria and fungi. This indicates that the use of Fixolor® AT and Planteria® BF in peach iced tea effectively inhibited the growth of these microorganisms.

In comparison to non-treated negative control samples, the products Fixolor® AT and Planteria® BF exhibited excellent results, indicating their efficacy in extending the shelf life of iced peach tea for up to 50 days.





CONCLUSION

During the experiment, microbial analyses were carried out for total plate counts and for yeasts and moulds, and Fixolor® AT and Planteria® BF delivered minimal or no results for both bacteria and fungi. It is clear from this experiment that these two products are effective in extending the shelf life of peach iced tea by up to 50 days.

This study demonstrates how Handary's natural preservatives can help maintain product quality and safety, reducing the risk of spoilage and ensuring customer satisfaction.





APPLICATION GUIDELINE

The following guideline will assist you to get the optimal solution by using Handary Planteria® BF and Fixolor® AT to effectively and naturally extend the microbial stability and the shelf-life of sparkling lemonade.

DIRECT ADDITION INTO FORMULATION

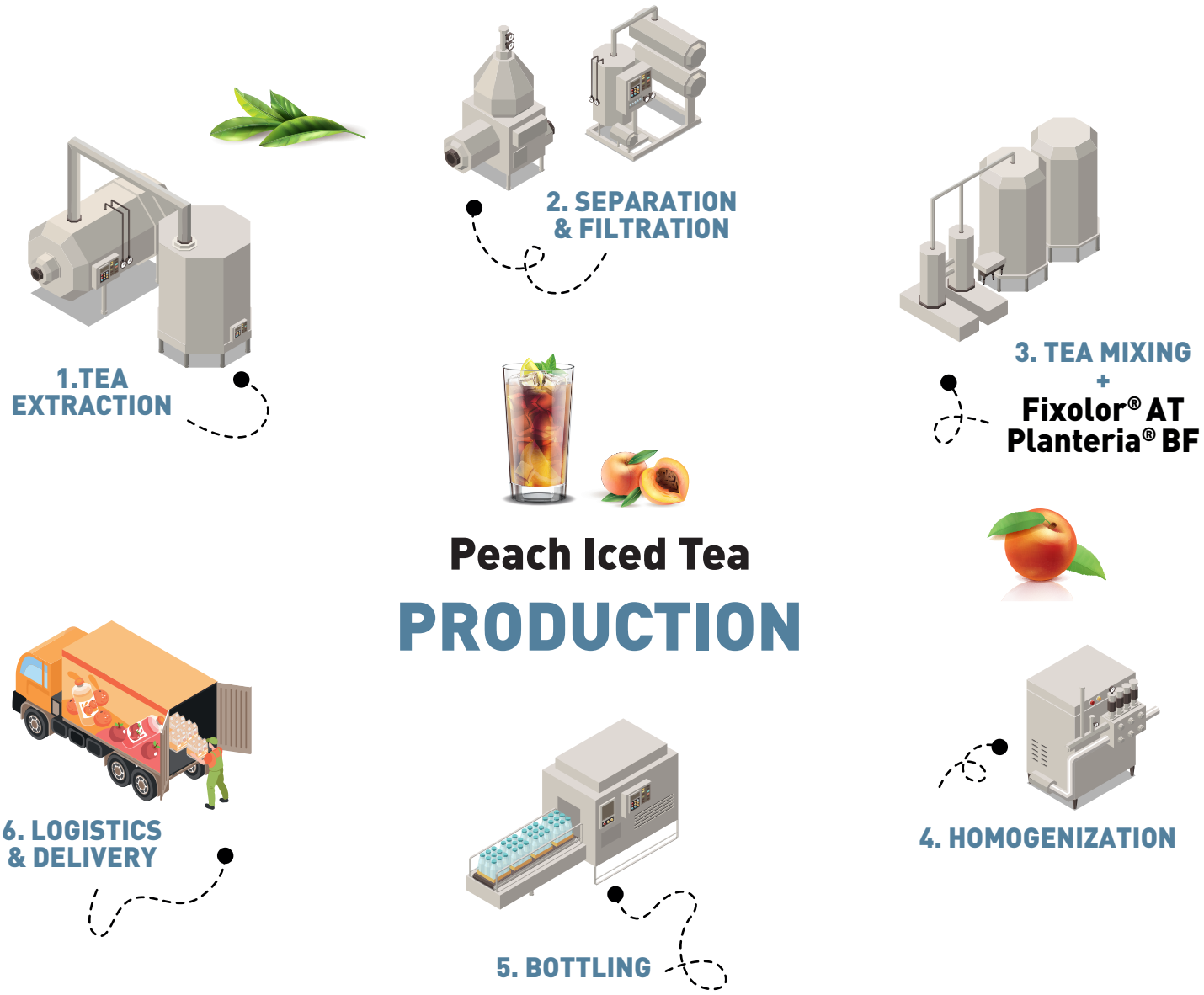
Follow the suggested dosages to apply Planteria® BF and Fixolor® ATdirectly into Peach Iced tea.

Ingredients	Application		Benefits	Dosage
Fixolor® AT	Beverages	Soft Beverages	Growth control of TPC (Total Plate Count) and color stability	0.1-0.7% (w/w)
Planteria® BF	Beverages	Soft Beverages	Growth control and stability of Yeasts and molds	2.5-5 g/kg

The recommended doses of Planteria® BF and Fixolor® ATare added individually but at the same step of the production. The suggested dosage of each product should be added after the filtration step.

PEACH ICED TEA MANUFACTURING PROCESS

Follow the representative production process flow chart of sparkling lemonade nd the recommended stage of product incorporation to get the best efficiency for Planteria® BF and Fixolor™ AT application.



These steps are just a general guide for the production of iced tea with a filtration step. The exact process may vary depending on the specific recipe and production equipment used.