

## BEST PRACTICES

# YEAST NUTRIENTS FOR BREWING: SERVOMYCES VS YEASTLIFE EXTRA

Whether you're brewing all-malt or adding adjuncts, yeast health and performance is critical for a successful fermentation and consistency from batch to batch. Nutrient additions are an effective method to ensure yeast health. Servomyces and Yeastlife Extra are two nutrient options provided by Lallemand Brewing for different applications.

## SERVOMYCES

Servomyces is an active, naturally zinc-enriched *Saccharomyces cerevisiae* yeast that contains 50,000-60,000 ppm of zinc within its cellular structure. The name Servomyces is derived from the fact that the active yeast is added to the kettle as a sacrificial 'zinc-bearing' yeast to serve the chosen fermentation yeast.

All-malt wort should normally provide most of the necessary nutrients for a successful fermentation. Zinc, however, can still be deficient. Servomyces is added at the end of the boil to inactivate the yeast while keeping the zinc in the cellular matrix. The zinc derived from Servomyces is therefore considered to be more bioavailable compared to the addition of mineral zinc.

Servomyces is highly recommended for propagation and repitching, and can be used as a 'yeast insurance' to ensure beers will ferment and attenuate to your expectations. Since zinc is necessary as an enzymatic cofactor in the last step of alcohol production, it is highly encouraged to use Servomyces for high gravity fermentations.



## YEASTLIFE EXTRA

Yeastlife Extra is a complete nutrient blend containing nitrogen, amino acids, minerals (Zn, Mg, Ca) and vitamins. As a balanced nutrient formulation, Yeastlife Extra has a wide range of applications related to stress caused by nutrient deficiency. If yeast is nutritionally deprived, this can result in partial fermentations, leading to off-flavors and other detrimental effects. Yeastlife Extra provides all-around nutrition to ensure healthy yeast cells at each generation, thus minimizing off-flavors, reducing diacetyl faster and generally promoting a more efficient fermentation. The use of Yeastlife Extra may save breweries time and money through increased fermentation efficiency and consistency.



## IMPROVED PERFORMANCE IN ALL-MALT WORT

Both Servomyces and Yeastlife Extra improve fermentation speed in all-malt wort. Since all-malt wort is rich in nutrients, little advantage is seen in the first generation (Figure 1), but when repitching the effect of nutrient additions becomes more pronounced with faster and more consistent fermentations observed with Servomyces and Yeastlife Extra (Figure 2).

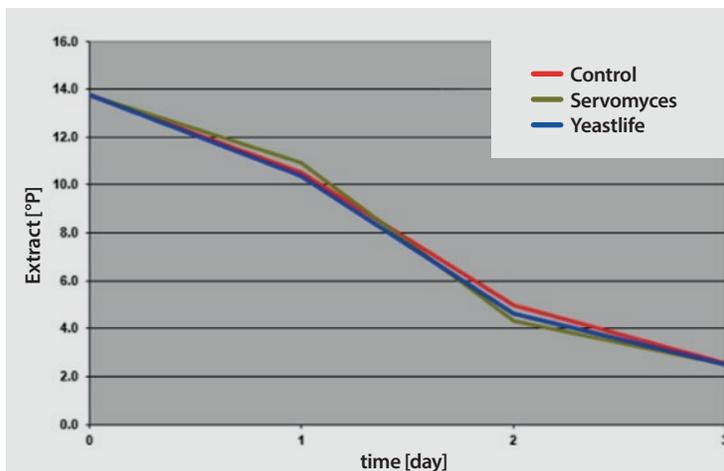


Figure 1: All-malt wort - Generation 1

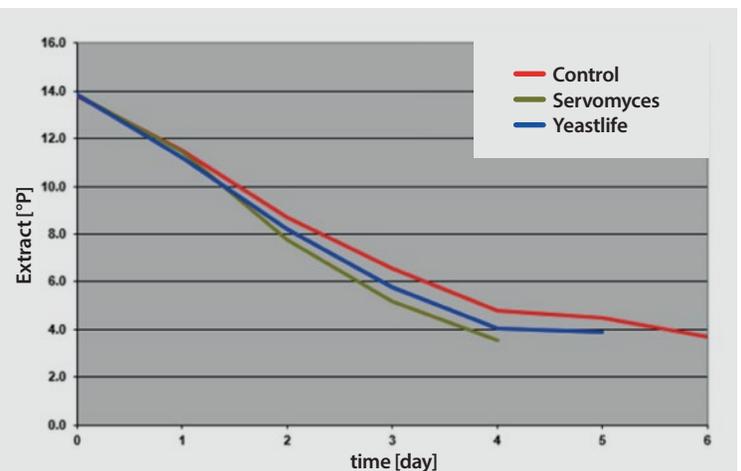


Figure 2: All-malt wort - Generation 8

# YEAST NUTRIENTS FOR BREWING: SERVOMYCES VS YEASTLIFE EXTRA

## IMPROVED PERFORMANCE IN HIGH GRAVITY ADJUNCT WORT

Both Servomyces and Yeastlife Extra improve fermentation speed and attenuation in high gravity adjunct wort. Faster fermentations and greater attenuation is seen in the first generation when using Servomyces and Yeastlife Extra (Figure 3) and these benefits become more pronounced when repitching for several generations (Figure 4).

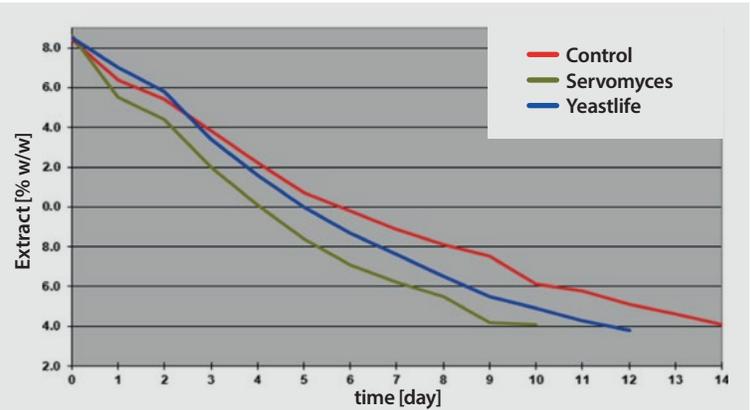
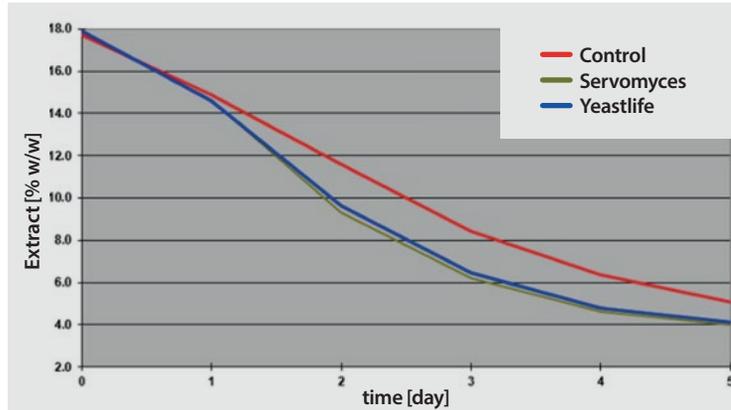
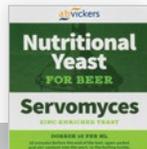


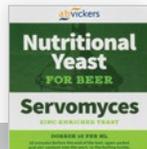
Figure 3: High gravity, high adjunct wort - Generation 1

Figure 4: High gravity, high adjunct wort - Generation 8

Contains 60% malt extract 40% high maltose corn syrup

## QUICK REFERENCE TABLE



		
<b>Description of products</b>	A pure strain of active brewing yeast naturally enriched in zinc. Since the zinc is bioavailable, it is more efficiently used by fermenting yeast than mineral zinc.	Yeastlife Extra is a complete nutrient blend containing organic and inorganic nitrogen, amino acids, minerals (Zn, Mg, Ca) and vitamins.
<b>Benefits</b>	Faster fermentation, improves yeast sedimentation, stimulates uptake of maltose and maltotriose (which results in greater attenuation and higher alcohol yields), and stimulates protein synthesis and yeast growth which leads to higher biomass production during propagation.	Keeps yeast nutritionally healthy from generation to generation reducing off-flavors, promoting faster and more efficient reduction of diacetyl; adds necessary nitrogen to high-adjunct wort.
<b>When to use?</b>	<ul style="list-style-type: none"> <li>- Repitching yeast</li> <li>- High gravity brewing</li> <li>- Propagation</li> </ul>	<ul style="list-style-type: none"> <li>- Re-pitching yeast</li> <li>- Low Nitrogen wort/high adjunct rates</li> <li>- Stuck fermentations/high stress</li> <li>- Poor/variable quality malt</li> </ul>
<b>Packaging</b>	500g, 10g, and 10kg	2kg and 25kg
<b>Application</b>	Added to kettle about ten minutes before the end of boil.	Added to the kettle at the end of boil, to the whirlpool, or in line to the wort main.
<b>Dosage</b>	<ul style="list-style-type: none"> <li>- 1g Servomyces for 1hL wort for fermentation</li> <li>- 2g Servomyces for 1hL wort for propagation</li> </ul>	<ul style="list-style-type: none"> <li>- 4-10g/hL</li> <li>- 8-15g/hl for propagation</li> </ul>