

# S.presso<sup>®</sup>

A COMPLETE LIVE FEED ENRICHMENT PRODUCT

ALLOWING A FAST, FLEXIBLE AND CLEAN ENRICHMENT WITH HIGH NUTRITIONAL BENEFITS



## INNOVATIVE

**S.presso** is an innovative enrichment, designed to meet the most exigent needs in terms of live feed quality enhancing. Produced with an advanced process of aqueous suspension and emulsion, it allows the incorporation of many beneficial ingredients.

## FLEXIBLE

**S.presso** is a very flexible tool to easily enrich up to very high values, offering a unique solution to multiple enrichment strategies depending on the customer's choice.

## COMPLETE

**S.presso** offers a complete liquid enrichment with trace-elements, micro-elements, lipids, vitamins and proteins.

## CLEAN

**S.presso** is clean in use. It creates an unpolluted environment allowing a perfect rotifer and *Artemia* condition.



Typical values may vary according to rotifer strain and quality

1.1 PREPARATION AND USE OF THE PRODUCT

- Take the product out of the refrigerator at least 3 hours before use (product becomes more fluid).
- Emulsify **Selco® S.presso** in water (at max. 300 g/l) by mixing vigorously for three minutes (with an industrial mixer).
- Apply according to enrichment strategy.

1.2 PREPARATION OF THE TANK

- Clean and disinfect the enrichment tank, airstones, air tubing prior to use (use e.g. 200 g/m³ active chlorine + detergent) and rinse well.
- Disinfect the water of the tank with e.g. 5 g/m³ active chlorine and aerate gently for ± 1 hour.
- Deactivate any remaining chlorine by adding 7 g/m³ sodiumthiosulphate.

1.3 TANK SET-UP AND OPTIMAL ENRICHMENT CONDITIONS

- Rotifer density 1.000-5.000/ml
- Salinity 20-25 ppt
- Temperature 25-27°C
- Aeration medium-strong using open tube central aeration
- Keep dissolved oxygen > 5 ppm by means of a leaky pipe (pure oxygen) or other fine bubble device

1.4 ENRICHMENT AND HARVEST OF ROTIFERS

- Enrichment of rotifers** can be performed in a separate tank using **S.presso** up to 12 hours
  - Add 2 x 175 g **S.presso** per m³ (at T0 and T3) up to 12 hours in the enrichment tank containing 1.000 Rot/ml, or different dose for higher densities.
 

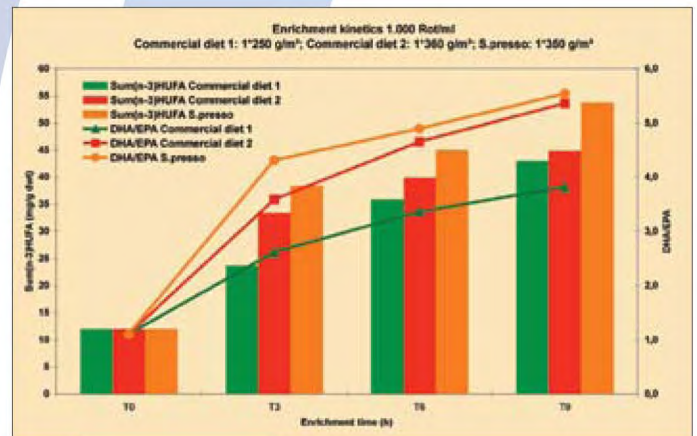
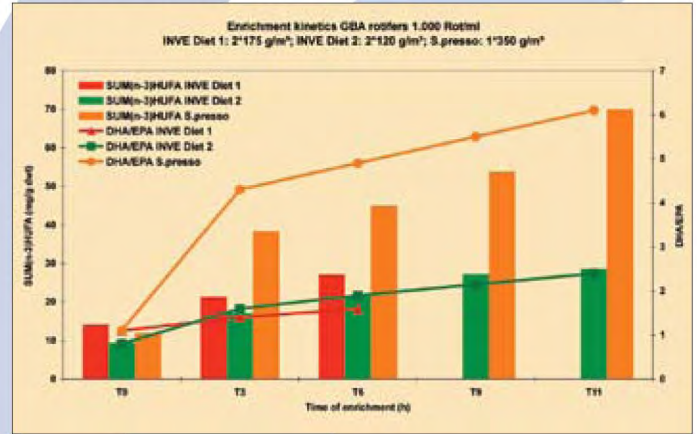
Rot/ml	Total amount of S.presso
≤1.000	350 g/m³
2.000	450 g/m³
5.000	650 g/m³

 Split the dose into 2 equal rations
  - Harvest the rotifers after 3-6-9-12 hours according to HUFA requirements.
- Overnight long term enrichment:** 20 hours
  - If for practical reasons a longer enrichment period (e.g. 20 hours) is required, rotifers can be re-stocked in a new tank with clear water.
  - A background feeding of 100 g/m³ Culture Selco® Plus is given every 6 hours prior to the start of enrichment (max. 2 background feedings).
  - 500 g **S.presso** per m³ should be administered in 2 rations during 12 hours before harvest.
  - Harvest the rotifers after 20 hours
  - With this strategy, one can expect HUFA levels of 50 mg/g dwt and a DHA/EPA ratio of min. 5.

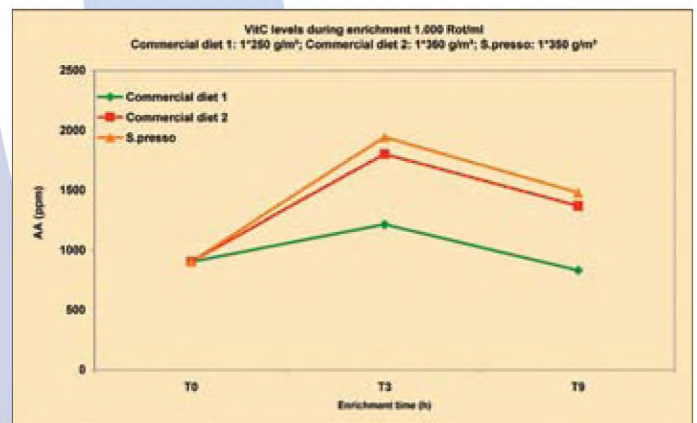
1.5 STORAGE

- After enrichment: filter and wash the rotifers with seawater of the same temperature as the water in the enrichment tank. Make sure that the rotifers are always submerged and avoid "splashing" of the rotifers in the filter.
- During storage: use open tube aeration for maintaining the rotifers suspended and keep dissolved oxygen > 5 ppm.

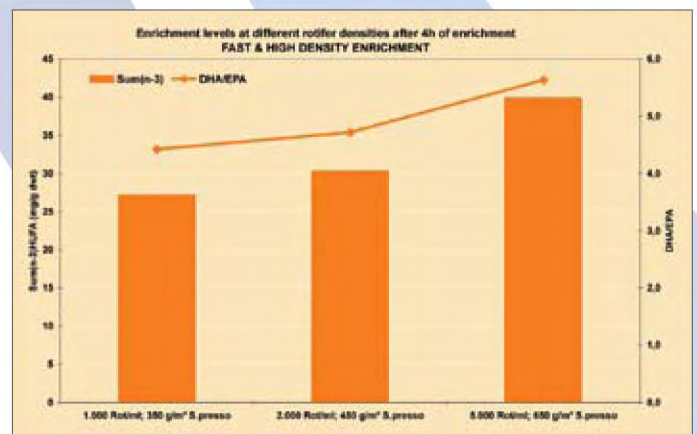
ENRICHMENT KINETICS USING S.PRESSO



VITAMIN C LEVELS USING S.PRESSO



POSSIBILITY TO USE S.PRESSO AT DIFFERENT ROTIFER DENSITIES





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1.2 PREPARATION OF THE TANK

- Clean and disinfect the enrichment tank, airstones, air tubing prior to use (use e.g. 200 g/m<sup>3</sup> active chlorine + detergent) and rinse well.
- Disinfect the water of the tank with e.g. 5 g/m<sup>3</sup> active chlorine and aerate gently for ± 1 hour.
- Deactivate any remaining chlorine by adding 7 g/m<sup>3</sup> sodiumthiosulphate.

1.3 TANK SET-UP AND OPTIMAL ENRICHMENT CONDITIONS

- *Artemia* density 300-1.000/ml
- Salinity 25-35 ppt
- Temperature 26-28°C
- Aeration medium-strong using open tube central aeration
- Keep dissolved oxygen > 5 ppm by means of a leaky pipe (pure oxygen) or other fine bubble device.

1.4 ENRICHMENT AND HARVEST OF ARTEMIA

- Add 2 x 500 g **S.presso** per m<sup>3</sup> (at T0 and T12) in the enrichment tank containing up to 300-350 Art/ml, or different dose for higher densities.
- Enrich for a period of 22 hours
- Harvest with the INVE concentrator rinser at T22

Art/ml	Total amount of S.presso
300	1.000 g/m <sup>3</sup>
500	1.500 g/m <sup>3</sup>
1.000	2.000 g/m <sup>3</sup>

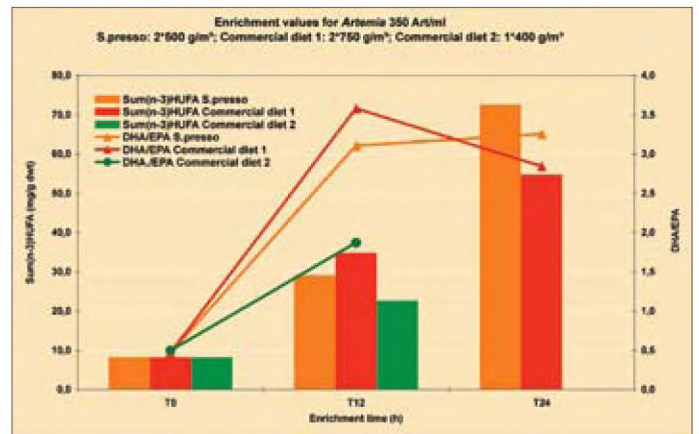
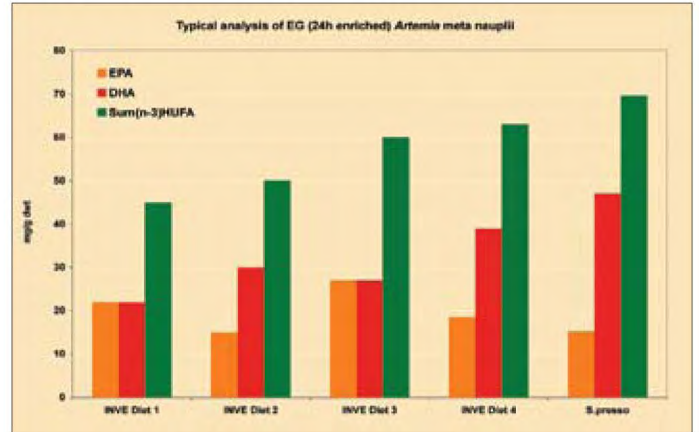
Split the dose into 2 equal rations

1.5 FEEDING TO THE LARVAE OR COLD STORAGE (MAX. 24 HOURS)

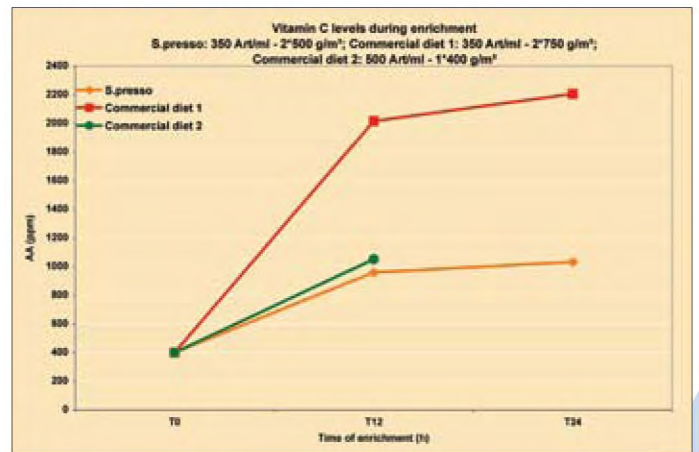
- Density up to 5.000 Art/ml
- Salinity 25-35 ppt
- Temperature 4-10°C
- Oxygen 4-6 ppm
- Soft point aeration & aeration diffuser collar

Typical values may vary according to Artemia strain and feeding regime used

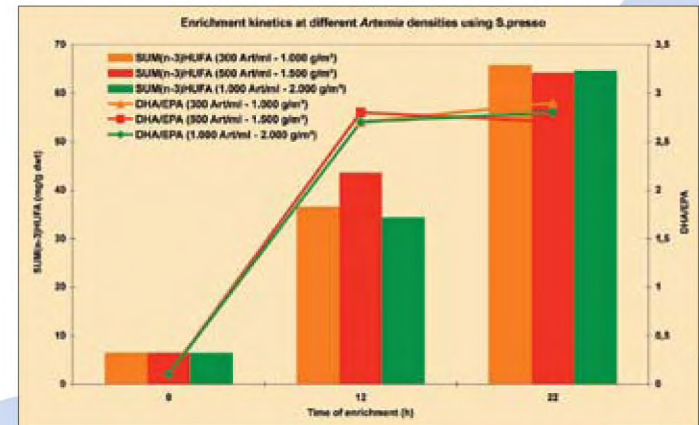
ENRICHMENT KINETICS USING S.PRESSO



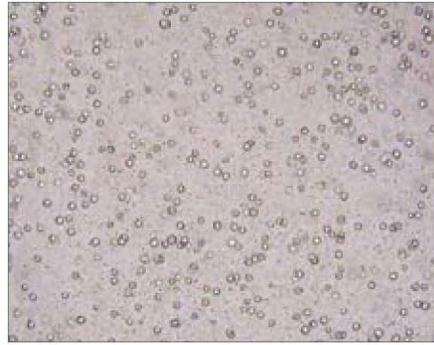
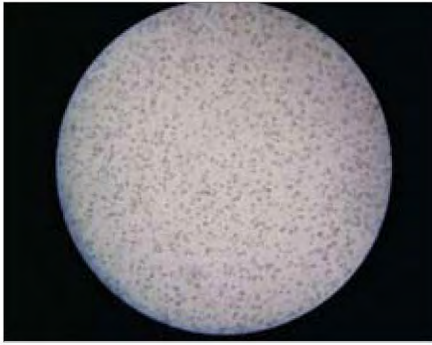
VITAMIN C LEVELS USING S.PRESSO



POSSIBILITY TO USE S.PRESSO AT DIFFERENT ARTEMIA DENSITIES



## AQUEOUS SUSPENSION AND EMULSION



After intensive research, INVE developed the suspension/emulsion technique, an improvement of the SELCO emulsification technology in which liquid and insoluble particles are mixed.

**S.presso** is a stable, liquid enrichment product where the combined emulsion and suspension guarantees optimal uptake of the various nutrients by the live plankton.

Thanks to this special production technique, DHA/EPA ratio is high (9) and the product includes a.o. minerals, trace-minerals such as Zn, Se, ...

## TYPICAL COMPOSITION

Moisture	58%
Crude protein	3%
Crude lipids	32%
Crude ash	2%
Phosphorus	0,5%
Vit.A	110.000 IU/kg
Vit.D3	10.000 IU/kg
Vit.E	5.400 mg/kg
Vit.C	8.000 mg/kg
Antioxidants	Ethoxyquin, BHA, propylgallate
$\Sigma\omega$ 3HUFA	150 mg/g dwt
DHA/EPA	9

## PACKAGING & STORAGE

**Selco® S.presso** is available in cartons of 9\*1 kg bottles and has a shelf life of 15 months from date of manufacture.

Store in a cool, dry place (max. 10°C). For prolonged storage (> 3 months) refrigeration (4°C) is advised.

Once opened, the product should be used within one month, kept well closed and stored in a refrigerator.

Do not freeze.