



INVE AQUACULTURE **NUTRITION**
HATCHERY DIETS



THE GROUNDBREAKING
LARVAL FISH DIET
THAT WILL TAKE YOU
TO THE NEXT ERA OF
MARINE FISH HATCHERY
PRODUCTION

REDUCES ROTIFER NEEDS BY MORE THAN 50%

BOOSTS FRY QUALITY AND PERFORMANCE

SIMPLIFIES THE LARVAL REARING PROCESS

UNLEASHES THE POTENTIAL OF YOUR HATCHERY

Improving fry quality and substituting rotifers requires top notch experience in larval feeds production and marine fish hatchery production. With **Natura pRo** and **ExL**, INVE Aquaculture has achieved the right balance amongst ingredient selection, feed behavior and easy application in the commercial hatcheries.



 A Benchmark
Company

CARE FOR **GROWTH**

Natura

pRo and ExL

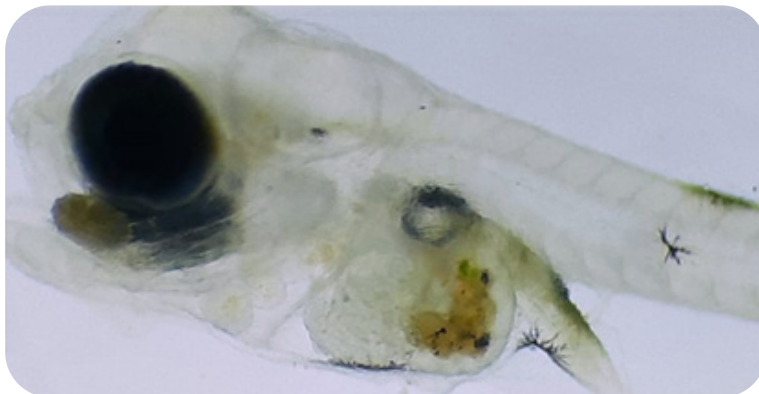
CHARACTERISTICS

Our rotifer substitution feed line is composed of two formulations **Natura pRo** and **ExL** that provide hatcheries with superior nutrition to achieve the unthinkable.



Natura pRo enables fish hatcheries to start dry feed application from mouth opening and achieve better performance in terms of fry survival and quality, reducing the dependency on rotifer variability in terms of quality and numbers.

- Reduces rotifer needs by more than 50%
- Balanced diet focusing on high quality fats and proteins
- Excellent behavior in water mimicking rotifers
- Highly palatable ensuring >90% success feeding rate
- Efficient nutrient assimilation by underdeveloped larvae
- Produced with innovative technology avoiding larvae tank pollution from dry feeds
- Available in 2 sizes pRo <100 (50 - 100 μm) and pRo 100 - 250 μm



Natura ExL

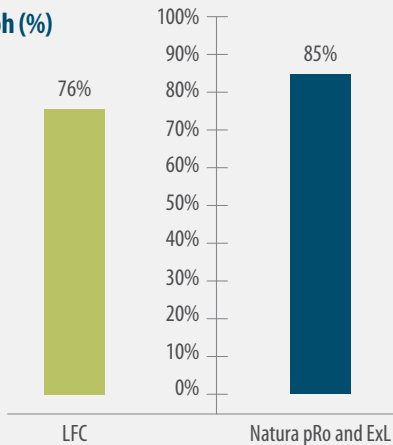
The target of quality does not stop with the rotifer phase supporting larvae with superior nutrition is key for optimal development and growth, with **Natura ExL** we have concentrated all our expertise to achieve higher standards in fry quality.

- Unique follow up for rotifer substitution
- Balanced diet focusing on high quality fats and proteins
- Securing optimal fry quality and robustness
- Highly palatable and digestible simplifying weaning process
- Optimal balance between quality larval nutrition and physical properties
- Available in 2 sizes ExL 200 - 400 μm and ExL 300 - 600 μm

PERFORMANCE

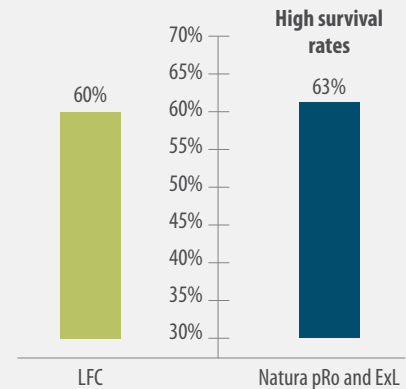
Our commercial scale trials in Sea bream *S.aurata* have achieved an **important milestone in efficient quality fry production with more than 50% rotifer substitution.**

Morphology Evaluation 77 dph (%)



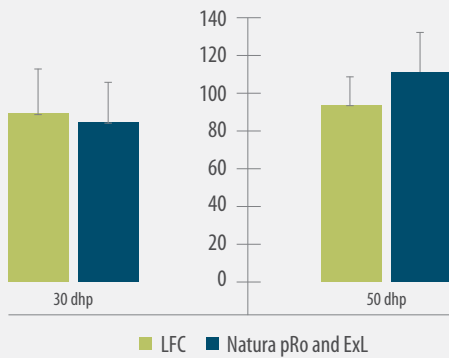
Morphological evaluation at 77 dph have shown better fry quality with **Natura pRo** and **ExL** when compared to standard larval rearing protocol (LFC). **Enabling fish hatcheries to achieve higher standards towards efficient production.**

Survival rate 56 dph (%)



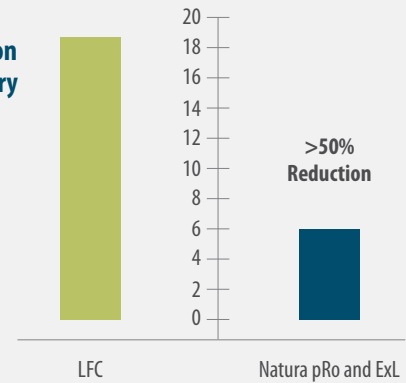
With more than 50% reduction of rotifer quantities with **Natura pRo** and **ExL** survival rates is either similar or higher when compared to standard rotifer application. Enabling hatcheries, **a major simplification in hatchery production without any compromise on performance.**

Robustness 30-50 dph



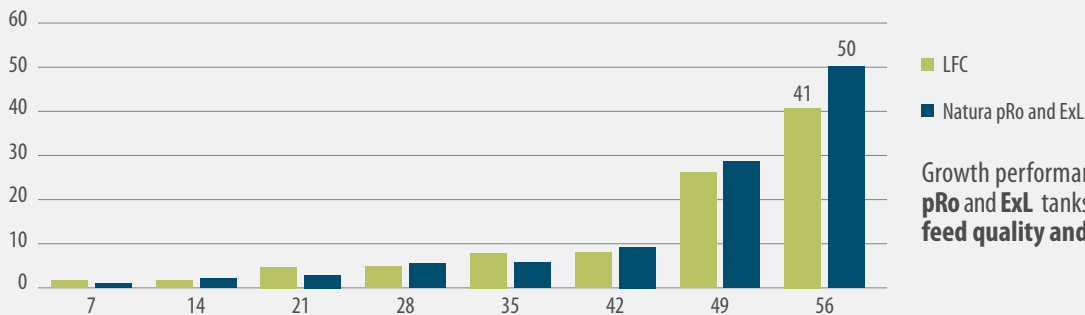
Natura pRo and **ExL** provides similar or better fry robustness (salinity stress test) despite reducing by more than 50% rotifer consumption.

Rotifer consumption in billions per mill fry



The use of **Natura pRo** and **ExL** efficiently replaces by more than 50% rotifer requirements consult you local INVE representative for tailor made protocols to achieve best results.

Growth Ind wet weight in mg until 56 dph



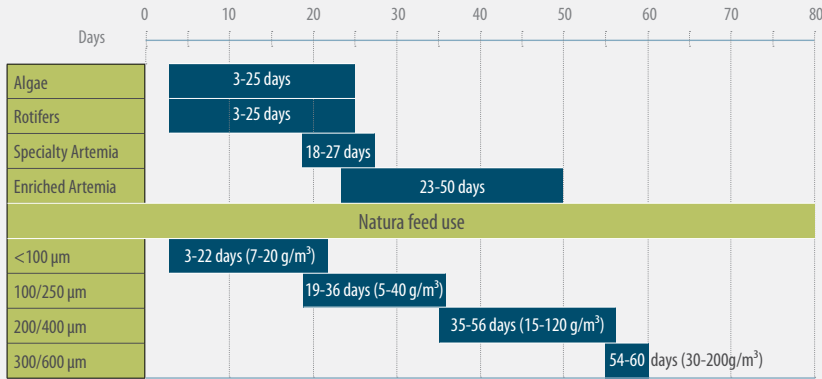
Growth performance was better with **Natura pRo** and **ExL** tanks, highlighting **the superior feed quality and digestibility.**

USE

Particle size	Use
Natura pRo <100	Apply as wet feeding. 1) Add up to 10 g of feed per 1 l of sea water and stir gently. 2) Feed up to 20 g/m ³ over multiple rations. Supplement with enriched rotifers.
Natura pRo 100/250	Apply as dry feed. Feed daily up to 40 g/m ³ over multiple rations. Supplement with enriched rotifers and/or Artemia.
Natura ExL 200/400	Apply as dry feed. Feed daily up to 120 g/m ³ over multiple rations. Supplement with enriched Artemia.
Natura ExL 300/600	Apply as dry feed. Feed daily up to 200 g/m ³ over multiple rations. Supplement with enriched Artemia if required.

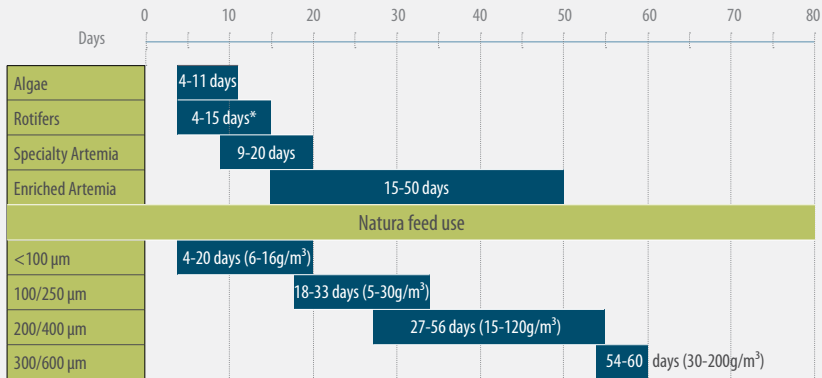
Tentative feeding regime for Sea bream reared from hatching to juveniles. This feeding regime has to be adapted to local conditions such as the rearing system, temperature, fish density ect.... Initial 2 days old larvae density is 80 up to 120 larvae per liter. Temperature 18°C at day 3 rising up to max 20°C. Salinity 35-37 ppt. Photoperiod 14-16 hours daylight.

Natura pRo and ExL diet range use in Sea bream according to age in days.



Tentative feeding regime for Sea bass reared from hatching to juveniles. This feeding regime has to be adapted to local conditions such as the rearing system, temperature, fish density ect.... Initial 2 days old larvae density is 80 up to 120 larvae per liter. Temperature 16°C at day 10 rising up to max 18°C. Salinity 35-37 ppt. Photoperiod 14-16 hours daylight.

Natura pRo and ExL diet range use in Sea bass according to age in days.



*Optional

Simple suggestions for successful rotifer substitution.

Dry feed application targeting Rotifer substitution must have exceptional physical characteristics, behaviour in water and the water quality must be kept optimal. **Natura pRo** and **ExL** can be easily integrated in marine fish hatcheries through our unique knowledge in producing top quality larval feeds and hatchery protocols development. INVE Aquaculture suggest the following water exchange rates and siphoning operations for optimal results.

Water exchange in 24 hours *		Suggested Siphoning*
Day 4-7 (DPH) min	100 up to 150%	Day 6 post hatch
Day 8-18 (DPH)	200%	Daily as of day 8 post hatch

PACKAGING

Natura pRo <100	1kg Alufoil X 5 cardboard box
Natura pRo 100-250	1kg Alufoil X 5 cardboard box
Natura ExL 200-400	1kg Alufoil X 5 cardboard box
Natura ExL 300-600	1kg Alufoil X 5 cardboard box

STORAGE/SHELF LIFE

Store in a dry place (max. 25°C). For prolonged storage and after opening, refrigeration (max. 5°C) is advised. Oxygen absorber included. Manufactured using natural ingredients. Color shade variation may occur but does not affect the product's performance.

GUARANTEED COMPOSITION

GUARANTEED	Natura pRo	Natura ExL
crude protein	51%	45%
crude fat	18%	16%
crude ash	12%	8.6%
ash insoluble in hydrochloric acid	4%	
calcium	1.2%	0.7%
phosphorus	0.6%	1.2%
sodium	0.8%	0.6%
crude fibre	0.7%	1.4%
DHA	20 mg/g dw	20 mg/g dw
EPA	10 mg/g dw	10 mg/g dw

ADDITIVES

VITAMINS

vit. A	3a672b	12,500 IU/kg	3a672b	12,500 IU/kg
vit. D3	3a671	2,500 IU/kg	3a671	2,500 IU/kg

TRACE ELEMENTS

iodine (potassium iodide)	3b201	5 mg/kg	3b201	5 mg/kg
copper (copper(II) chelate of glycine hydrate (solid))	3b413	6 mg/kg	3b413	6 mg/kg
manganese (manganese chelate of glycine hydrate)	3b506	45 mg/kg	3b506	45 mg/kg
zinc (zinc chelate of glycine hydrate (solid))	3b607	50 mg/kg	3b607	50 mg/kg
selenium (selenomethionine produced by Saccharomyces cerevisiae NCYC R646 (selenised yeast inactivated))	3b813	0.3 mg/kg	3b813	0.3 mg/kg

ANTIOXIDANTS

BHA	1b320	75 mg/kg	1b320	75 mg/kg
BHT	E 321	75 mg/kg	E 321	75 mg/kg
propyl gallate	E 321	100 mg/kg	E 321	100 mg/kg

*The suggested instructions need to be fine-tuned to local conditions especially to specific water quality issues, for technical advice contact your local INVE Aquaculture representative.



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CARE FOR GROWTH

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For more information, please contact your local INVE Aquaculture Service Center or take a minute to visit our website:
www.inveaquaculture.com

