

ROTIgROW NANNO™

Nannochloropsis

A frozen, whole-cell concentrate of Nannochloropsis microalgae for Rotifer Production and Rotifer Enrichment (EPA and ARA). High in carotenoids and phospholipids. 2-year frozen shelf life with a 3-month refrigerated shelf life.



PRODUCT DESCRIPTION

Frozen Nannochloropsis for Greenwater, Rotifer Production, and Rotifer Enrichment

RotiGrow Nanno™ is a frozen, whole-cell concentrate of Nannochloropsis microalgae for Rotifer Production and Rotifer Enrichment (EPA and ARA). High in carotenoids and phospholipids. 2-year frozen shelf life with a 3-week refrigerated shelf life.

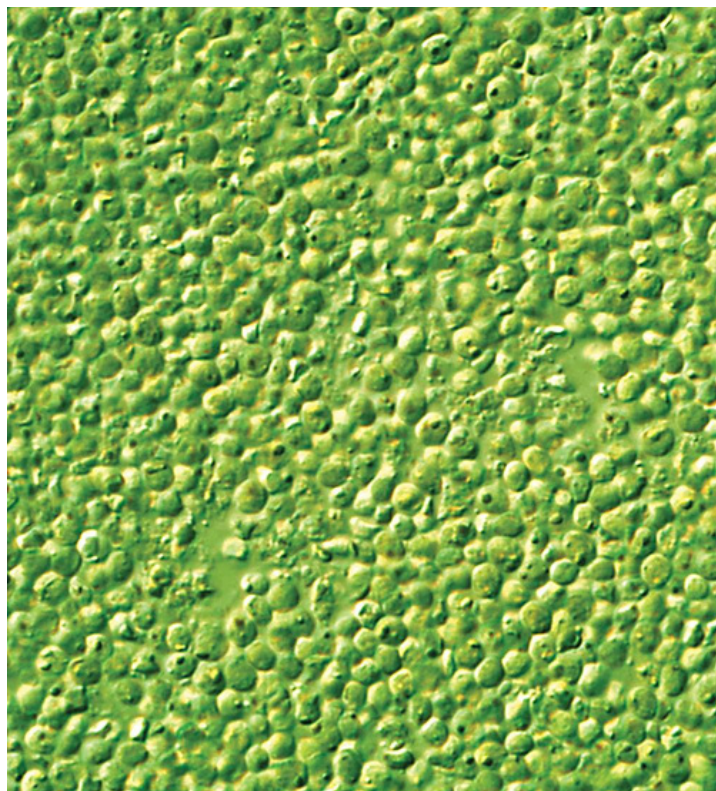
APPLICATIONS & BENEFITS

Applications

- Greenwater
- Rotifer production
- Rotifer enrichment

Benefits

- Biosecure
- Trusted Standard for 25 years
- Nutrient-rich
- Promotes larvae gut health
- Enhances larval visual perception
- Exceptionally clean
- Easy to use



DIRECTIONS



1. Defrost frozen Rotigrow Nanno slowly in a refrigerator overnight. RotiGrow Nanno can be poured directly into the larval tank, but pre-diluting. (Note: 10 liter Cubitainers and cases may require 2 days defrosting)
2. Mixing and screening are not necessary. DO NOT BLEND; it is unnecessary and may damage the algae cells.
3. Feed according to the table below. Adjust dosage to meet the needs of your hatchery and larvae

TYPICAL FEEDING PROTOCOL

Rotifer Production:

Feed rates based on 165micron l-type rotifer with a mass of 0.18g dry weight/million rotifers

Continuous:

- Feed rate: 2ml/million rotifers – use rotifer count after harvest
- Typical harvest is 35-40% per day
- Feed 4-6 times per day
- Feed continuously for best results
- Divide the daily feed rate by the number of feedings
- If you harvest more or less rotifers per day, adjust feeding according to the table below



HARVEST RATE	FEED / MILLION ROTIFERS (ML)	ROTIFERS PRODUCED PER LITER ROTIGROW NANNO
25%	1.2	320
35%	1.9	320
50%	3.4	320

Batch Production:

- Feed rate: 2ml/million rotifers
- Feed 4-6 times per day or continuously
- Divide the daily feed rate by the number of feedings
- Feed continuously for best results
- For a faster or slower growth rate, use the table below

Batch Production Systems:

	ROTIFER DENSITY (PER ML)						
ROTIGROW NANNO (FEED PER DAY PER MILLION ROTIFERS)	DAY 0	DAY 1	DAY 2	DAY 3	ROTIFER HARVEST (PER LITER OF FEED)	GROWTH RATE (PER DAY)	
1.4 ml	500	706	996	1406	320 million	41%	
2.0 ml	500	795	1264	2010	320 million	59%	
2.9 ml	500	9910	1656	3013	320 million	82%	

Nutritional Profile of Harvested Rotifers:

ROTIGROW NANNO	
PROTEIN	68%
LIPIDS	8.90%
DHA	0.0 *
EPA	20.0 mg/g *
ARA	2.8 mg/g *
HUFAS	32 mg/g *
POLAR LIPIDS	56%
STEROLS	4.2%
FREE FATTY ACIDS	5%
TRIGLICERIDES	n/a

* dry weight

PACKAGING	1-quart bottle, 1-liter bag, 10-liter cubitaner®
STORAGE	2 years shelf life when frozen12-14 week refrigerated shelf life after defrosting
TIP	If thawed and won't be used within 12 to 14 weeks, freeze in standard ice cube for 24 hoursStore frozen cubes in plastic bag in freezer and then thaw before use

PHYSICAL PROPERTIES	
APPEARANCE	Viscous green or brown Liquid
ALGAL CELL SIZE	1.5 - 2 microns
CELL DENSITY	68 Billion/ml
ALGAL BIOMASS	180g Dry biomass/L

COMPOSITION OF DRY ALGAL BIOMASS

PROTEIN	< 59.6%
LIPID	< 14.8%
EPA (% OF LIPIDS)	27.3%
ARA (% OF LIPIDS)	3.5%
CARBOHYDRATE	< 18.0%
ASH	< 5.5%

COMPOSITION OF LIQUID PRODUCT

PROTEIN	> 10.0%
LIPIDS	> 2.5%
EPA (% OF LIPIDS)	> 3.1%
ASH	< 7.0%
MOISTURE	< 79%

MICROBIAL SPECIFICATION

COLIFORM BACTERIA	2 <0.3 mpn/mL
SALMONELLA	Negative
KNOWN PATHOGENIC MARINE BACTERIA	Negative