

# Cultures and media for plankton breeding

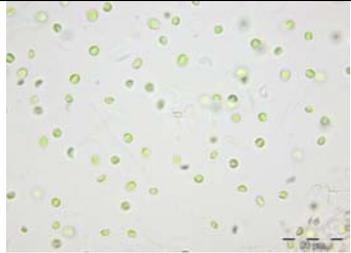
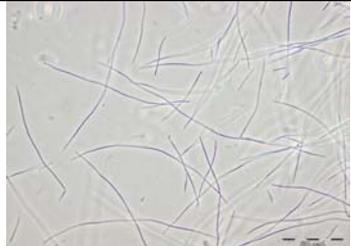


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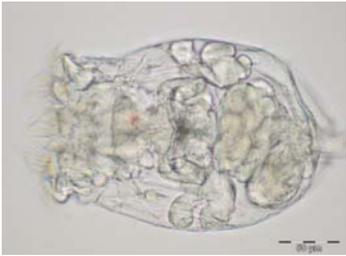


## Algae cultures

The cultures of AquaCare are delivered in 1 liter flasks. There is a high purity level (microscopic control), but we cannot guarantee axenic culture (free of any other organisms). The transport (within Germany) take place only Wednesdays and not at very hot weather. Detailed information are only available in the internet. The cultures are not available all the time.

<i>Nannochloropsis salina</i> , Strain Nan-4			
		Cell length: 2...5 µm Cell wide: 70...100% of cell length Order number 1 litre: klt-nan4-010	<i>Nannochloropsis salina</i> is an extreme small micro algae for feeding very small to larger zooplankton organisms. It is very rigid and prevails easily in mixed cultures at non optimal conditions. Ideal for beginners.  Medium: algae medium 14:1
<i>Unkown cyanobacterium</i> , Strain Xxx-8			
		Cell length: 5...500 µm Cell wide: < 1 µm Order number 1 litre: klt-xxx8-010	This unkown cyanobacterium is very fast growing species for feeding small to large zooplankton organisms. Ideal for beginners. Attention: it is overgrowing slowly growing algae cultures.  Medium: algae medium 10:1
<i>Phaeodactylum tricornutum</i> , Strain Pha-7			
		Cell length: 25 µm Cell wide: 2.5 µm Order number 1 litre: klt-pha7-010	Pennate diatom; easy to grow. It should be fed only indirect (e.g. with <i>Brachionus</i> ) to larvae.  Medium: algae medium 7:1

# Zooplankton cultures

<i>Brachionus plicatilis</i> L-type, Strain Bra-9		
	Animal length: 200...400 µm Animal wide: ca. 50...75% of length Order number 1 litre: klt-bra9-010 approx. 250 / ml	Ideal "transport container" for nutrients for feeding small and medium larvae. The nutrient concentration of <i>Brachionus</i> is very low, but it is possible to enrich these rotators very easily. Therefore a high-grade nutrient concentrate and/or fresh micro algae have to be fed. After it <i>Brachionus</i> should be used.

## Breeding media (concentrates)

Breeding media of AquaCare are designed exactly for the needs of the different algae. To prevent bacterial growth only mineral substances are used as far as possible. The pH of the ready solution is not influenced. To validate if the medium contains still enough nutrients the nitrate concentration should be controlled regularly by test sticks. If nitrate is diminished the phosphate concentration is low, too. The finished algae culture is ready for use in the next plankton level without cleaning of centrifugating. The direct feeding to zooplankton (if they need phytoplankton) is possible, too. Phosphate and nitrate concentrations are below harmful concentration all the time. Eutrophication or undesirabel development are expelled.

Different species of algae have very different needs of nitrogen and phosphorous - the N:P ratio may differ extremely from the so-called REDFIELD ratio. AquaCare has optimized the media to the cultivated algae species to make sure that after the breeding time both nutrients N and P are nearly consumed. If you want to cultivate an algae with unkown requirements choose the medium with a N:P ratio of about 16:1. To create any N-P ratio you can use the N- and P-additives.

	<b>1 litre lasts for:</b> 10,000 litres 1fold Medium 1,000 litres 10fold Medium 100 litres 100fold Medium contains 16 trace elements, nitrogen and phosphorous	
N:P = 16:1	Order number 1 litre: klt-16-010	
N:P = 14:1	Order number 1 litre: klt-14-010	e.g. for <i>Nannochloropsis salina</i> ,
N:P = 10:1	Order number 1 litre: klt-10-010	e.g. for xxx-8 (unkown cyanobacterium)
N:P = 7:1	Order number 1 litre: klt-07-010	e.g. for <i>Phaeodactylum tricorutum</i> ,
N-additive	Order number 1 litre: klt-N-010	for mixing any N-P ratio: contains 23.5 g N/l (1.685 M) resp. 3.3 g P/l (0.1053 M)
P-additive	Order number 1 litre: klt-P-010	at dosing 1 ml per litre yields 104 mg/l nitrate resp. 10 mg/l phosphate in the ready algae medium