

# PRO DEFENCE

FOODS FOR FISH AND FRY WITH PROBIOTIC









## PROBIOTIC IN FISH FEEDING

Probiotics are living microorganisms that, if administered in adequate quantities, have a beneficial effect on fish's health.

## WHAT EFFECT DO PROBIOTICS HAVE ON FISH?

- ✓ colonize the gastrointestinal tract, adhering to the intestinal epithelium, thus creating a barrier to the colonization of unwanted bacteria
- ✓ produce substances (organic acids, bacteriocins, hydrogen peroxide, lysozyme) which inhibit the growth of pathogenic bacteria
- ✓ restrict the access of pathogenic bacteria to nutrients
- ✓ affect the immune system, stimulating it to produce antibodies and increasing macrophage activity

## BENEFITS FOR FISH FROM USING FOODS WITH PROBIOTIC

-  increased resistance to pathogens
-  faster growth of fish and greater fertility
-  stronger and larger fry
-  better utilization of food
-  better survival rate of the fry
-  increased resistance to stress

## PRO DEFENCE FOODS CONTAIN THE PROBIOTIC BACTERIA *BACILLUS SUBTILIS* IN THE FORM OF VIABLE ENDOSPORES

Endospores are a type of spore that allow bacteria to survive in extremely adverse environmental conditions. Endospores are resistant to high temperatures of up to 100°C, drought, UV radiation and inappropriate pH of the environment. Thanks to these properties of *Bacillus subtilis* endospores, the probiotic added to Pro Defence foods retains its vitality for a long time, and germination of endospores occurs only in the gastrointestinal tract of fish.



## HI-PROTEIN 60%



### PRO DEFENCE MICRO SIZE food with probiotic for fry

- ✓ hi-protein (60%) powder with probiotic for everyday feeding of the fry
- ✓ probiotic added to the food contains viable *Bacillus subtilis* endospores, which stabilize gut microflora, boosting fish resistance to pathogens and facilitating utilization of nutrients, which in turn accelerates fish's growth and reduces contamination of water with fish's feces
- ✓ the synergic effect of probiotic, beta-glucan, vitamins and carotenoids significantly enhances the immune system of the fry, increasing its resistance to pathogens
- ✓ probiotic increases the survival rate of the fry and its resistance to stress
- ✓ high content of protein, including essential amino acids, ensures healthy growth and development of fish
- ✓ properly selected vitamins, macronutrients and trace elements prevent avitaminosis, rickets and supports organ and bone development

Available packing units:  
tin 100 ml.

### PRO DEFENCE SIZE S i M food with probiotic for all aquarium fish

- ✓ slowly sinking granules with probiotic for everyday feeding of fish
- ✓ probiotic added to the food contains viable *Bacillus subtilis* endospores, which stabilize gut microflora, facilitating utilization of nutrients, which in turn reduces contamination of water with fish's feces
- ✓ the synergic effect of probiotic, beta-glucan, vitamins and carotenoids significantly improves fish's overall condition and their immune system, hence food is recommended also during diseases, recovery or acclimatization
- ✓ probiotic positively influences reproduction, increasing fish's fertility and the survival rate of the fry and alleviates stress caused by transportation, spawning, intra-species aggression, rivalry etc.
- ✓ high content of protein, including essential amino acids, ensures healthy growth and development of fish

Available packing units:  
tins 100 ml, 250 ml, 1000 ml.