

4. Food Fish – Trout

Common Name(s):

Rainbow Trout

Species: *Oncorhynchus mykiss*



A popular and well known cold-water food fish. Rainbow trout are relatively hardy, fast growing and tolerant of handling, however trout require good water quality and fast flow-rates to be reared at high densities. If you would like to grow trout we would therefore suggest doing so only in the large FishPlant production unit at no more than 0.5kg per 100 litres of water.

History: Since the late 19th Century Rainbow trout has been introduced to all continents except Antarctica, for recreational fishing and for food. Following the development of the flow-through tank system and pelleted feeds in the early 1900's, the trout aquaculture industry has grown exponentially. Rainbow trout is by far the most widely farmed trout in the world, mainly because it is a prized food fish and because it is relatively easy to culture.

Physiology: Long, elongated body. Adipose fin is present. Colouration is blue to olive green above a pink band along the lateral line and silver below. Back, sides, head and fins covered with small black spots. Trout can withstand wide ranges of temperature variation (0-27 °C) but optimum growth occurs between 12 and 16 °C. At water temperatures above 22°C, a trout's digestive system becomes inefficient and much of the feed ends up as waste in the water.

Diet: Trout are carnivores and in the wild, will consume a large range of organisms such as aquatic and terrestrial insects, molluscs, crustaceans, small fishes and freshwater shrimp which give the flesh its characteristic orange-pink colour. Pelleted diets have been modified and improved over the years, and are widely available. Due to the carnivorous nature of trout, these diets are typically high in energy/lipids and contain relatively large amounts of fish oil.

Growth Rate: Food market fish size can be reached in 9 months (30-40cm) but 'pansized' fish, generally 280-400 g, are harvested after 12-18 months.

Common Carp: 23-30°C

D.O. mg/l	pH Units	Un-Ionised Amonia mg/l	Nitrite mg/l	Nitrate mg/l	Hardness mg/l	Alkalinity mg/l	CO ₂ mg/l	Salinity ppt	Chloride mg/l
5-12	6.5-8.5	0-0.02	0-0.1	<50	50-350	50-250	0-20	0-1500	0-3