



An Aquaponics system, integrating plant and aquaculture cultivation, has been set up in Mugla.

Metro Türkiye Takes Another Pioneering Step in Sustainable Fishing

Metro Türkiye has launched another pioneering initiative in the retail sector in line with its vision of sustainable fishing. An aquaponics system has been established through investment in a facility in Muğla. This system, the first of its kind in Türkiye's retail sector, combines aquaculture with plant cultivation.

Metro Türkiye has started cultivating sea bass and salicornia within the same system using the aquaponics method. The system offers greater control over factors such as water quality, temperature, and disease management. For this project, Metro Türkiye has partnered with HATKO Aquaculture, Denmark-based Alpha Aqua, and their Turkish partner Nordic.

25 June 2024, Istanbul – Metro Türkiye, which has taken many pioneering steps in sustainable aquaculture during its nearly 35 years serving the Turkish market, has undertaken a new industry-leading enterprise. The initiative combines aquaculture with plant cultivation to produce sea bass and salicornia in the same closed system through the application of the Aquaponics method. With this system, the growth period for a sea bass, which typically takes 14-15 months, is reduced to 9 months. A key element is the system's Recirculating Aquaculture System (RAS) which provides greater control over water quality, temperature, and disease management, contributing to sustainable aquaculture while enhancing productivity and product quality. As part of this project, Metro Türkiye has partnered with Esbjerg, Denmark-based Alpha Aqua A/S and its Turkish partner, Nordic, for the design and supply of a new, state-of-the-art facility utilising a recirculating aquaculture system (RAS) in the Turkish city of Mugla.

Deniz Alkaç, Board at Metro Türkiye Cash and Carry, stated that they have implemented many initiatives and projects focusing on sustainable aquaculture to ensure future generations can enjoy a rich variety of seafood. "As Metro Türkiye, we see fish as a resource that should be left for future generations rather than worrying about it primarily being a commercial product. We have kept sustainable aquaculture at the centre of our purchasing policy since 2010 to protect marine fish stocks and species." Reinforcing this message **Mr Alkaç** noted that "Not only the fish in our seas but also the fish grown in farms need to be handled with a sustainable approach."

The plants are grown with nutrient-rich water from fish tanks.

Explaining that they have taken another pioneering step in sustainable aquaculture by starting to produce sea bass alongside salicornia using the aquaponics system, **Mr Alkaç** described how "In this system, plants are grown with nutrient-rich water that comes from the fish tanks. This creates a mutually beneficial relationship between fish and plants, resulting in a closed-loop ecosystem. As the pioneer of sustainable aquaculture in Türkiye, we have started to produce sea bass and salicornia with this system. In the facility built in Muğla, we use feed consisting of algae oil and reduced sea fish content in the production of sea bass. With this special feed, we contribute to healthy nutrition by producing fish richer in Omega-3."

With reference to the timescale of the project **Mr Alkaç** noted that "We plan to have the first fish harvest within nine months and to put our first products on the shelves-through our Metro Premium brand in the first months of next year."



A necessary step for sustainable and healthy protein production

"We are pleased and proud to be chosen as the technology supplier for Metro Türkiye's unique project," said **Chief Commercial Officer of Alpha Aqua and Nordic founding partner, Yasin Kasa** who provided further details of the system.

"RAS technology, now in a more mature state after decades of development and implementation, offers high production efficiency through high fish welfare levels, precise water quality control, automated feeding based on fish appetite, and waste management. It outperforms traditional aquaculture methods in resource utilisation and sustainability and is necessary for future sustainability and healthy protein production while preserving the environment."

"RAS is vital for sustainable aquaculture as it significantly reduces water usage, minimises environmental impact through contained waste treatment, and enhances biosecurity with its closed-system design. The RAS technology also provides advantages by bringing fish production closer to the end consumer for a lower carbon footprint in terms of transport and a much faster time to market, providing better and more fresh products."

Providing fish welfare and productivity

Pointing out that in recirculating aquaculture systems, all physical and chemical parameters that affect the health and welfare of fish are constantly measured, **Hatko Executive Committee Member Dr. Metin Albukrek** emphasised: "Thanks to advanced automation, necessary corrections to the system are made immediately and automatically, before they reach alarm levels harmful to fish welfare. Thus, the welfare of fish and the efficiency of production are significantly increased, and fish losses are reduced. Land-based aquaculture systems successfully replicate sea-based farms without occupying the limited surface area available at sea and with minimal use of seawater". In addition, the water from the fish tanks enables the production of plants in the same cycle; the environmental effects of fertiliser production and consumption are eliminated. As Hatko, we are pioneering a new production technology by establishing and operating the facility."

Increasing quality and efficiency

The recirculating aquaculture system offers increased control over factors such as water quality, temperature, and disease management. Constantly monitoring the water in the tanks creates the safest and healthiest environment for fish to grow, including the elimination of the risk of microplastics. The system ensures traceability in terms of quality and food safety in both fish and plant production. Aquaponic systems also offer water efficiency when growing plants as they require only a fraction of the water used in traditional soil-based agriculture.

About Metro Türkiye

Founded in 1964 in Germany, Metro, an international wholesaler company serving in more than 30 countries, has been operating in Türkiye since 1990. Metro Türkiye has been working to preserve Turkish culinary culture and values, to pass them on to future generations, and to ensure that Turkish cuisine and its chefs take their rightful place in the world. Today, Metro Türkiye employs more than 4,000 people in 35 stores in 20 cities across Türkiye. In addition to store operations, the Food Delivery Operation (FSD) provides food delivery services to professional customers in more than 70 cities and offers more than 20,000 types of food and non-food products to end consumers and HORECA (hotel, restaurant, café) businesses by considering the price-quality-performance relationship. Metro Türkiye, which also has Sustainable Business Awards, aims to contribute to the recording of local values and bequeathing them to future generations with all its efforts, from meat, fish, honey and fruit and vegetable traceability to sustainable animal



husbandry, fisheries and cage-free chicken eggs, from food waste projects to the Geographically Marked Products project. Metro Türkiye, with its own brands Metro Chef, Metro Professional, Metro Premium, Aro, Rioba and Sigma, is the first and only company in Türkiye to hold the internationally recognised IFS Cash & Carry / Wholesale + IFS Logistics combined certificate, which is based on the establishment of the food safety management system, "From Land to Table". Metro Türkiye, the first and only retailer in Türkiye with the ASC-MSC CoC Group certification, also holds ISO 14001 certification that provides guidance for identifying environmental factors in the process from the raw materials to the delivery of the product to the customer, and for minimising the damage to the environment by controlling these factors through necessary measures.