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# Tilapia culture in Arabia

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## Egypt accounts for 90% of regional production



Tilapia are freshwater fish adapted to a wide range of water salinity and temperature, which makes them excellent candidates for aquaculture in the Arabian region. However, tilapia culture is practiced in only a few countries of the region: Egypt, Saudi

Nile tilapia are intensively farmed in the Saudi Arabian desert using underground water.

Arabia, Syria, Sudan, and Jordan (Table 1).

Nile tilapia and blue tilapia are the primary species raised, with additional focus on Galilee tilapia, Mozambique tilapia, redbelly tilapia, and some hybrids.

Egypt alone produces about 90 percent of the farmed tilapia in the region, followed by Saudi Arabia. The three other countries mentioned above apply simple, extensive and semi-intensive culture methods, using fertilizers and farm-made supplemental feeds as feed inputs, which results in relatively low production.

## Tilapia in Egypt

Tilapia is the most important cultured fish species in Egypt. Its production increased from 21,505 metric tons (MT) in 1992 to 52,755 MT in 1998. These figures represent 37.9 percent of total aquaculture production in Egypt and 5.42 percent of the world's production. Egypt is the fourth-largest producer of farmed tilapia in the world, only surpassed by China, the Philippines, and Indonesia.

## El-Sayed, Production of farmed tilapia, Table 1

	1992	1993	1994	1995	1996	1997	1998
Egypt	21,505	19,857	25,214	21,969	27,854	30,416	52,755
Saudi Arabia	2,191	2,305	2,220	2,495	2,614	3,837	3,315
Syria	1,126	1,015	991	1,110	1,588	1,100	1,372
Sudan	200	200	200	1,000	1,000	1,000	1,000
Jordan	16	45	67	128	135	150	263
Total	25,038	23,422	28,692	26,702	33,191	36,701	58,705

Table 1. Production of farmed tilapia (mt) in the Arabian region. Source: FAO, 2001.

## Polyculture systems

More than 100,000 ha of inland freshwater and brackish water are currently used for aquaculture in the Nile Delta region and the Northern Delta lakes of Egypt. Tilapia culture is practiced mainly in semi-intensive, polyculture systems where tilapia, carps, and mullets are farmed together.

Farmers stimulate natural food production through pond fertilization with organic and/or inorganic fertilizers, in addition to supplementation of feed ingredients (wheat bran and rice bran) or low-protein, high-energy feeds. Tilapia culture in rice fields is also growing at a significant rate, due to the expansion of rice agriculture in Egypt.

## Intensive culture in private sector

Intensive tilapia culture in floating cages, concrete tanks, and earthen ponds is currently expanding significantly, and gaining great attention – especially in the private sector. Since high-quality pelleted feeds are used for intensive tilapia culture, a number of private and governmental aquaculture feed mills have been built in recent years to meet the increased demand for fish feed.

## Tilapia in Saudi Arabia

Tilapia is also the most important cultured fish in Saudi Arabia. About 10 strains of pure and hybrid tilapia have been tried in culture, but Nile tilapia is the most popular species. Because of the scarcity of water in Saudi Arabia, production systems are intensive and super-intensive, mainly in concrete and fiberglass tanks that use underground water in recirculating or flow-through systems. Modern technology and management, and highquality feeds are usually used. Tilapia culture in Saudi Arabia is practiced almost exclusively by the private sector. However, the government provides substantial assistance to the aquaculture sector through loans, extension services, technical assistance, and continuous research. As a result, the number of tilapia farms has tripled since 1990.

## Conclusion

Egypt and Saudi Arabia are the major tilapia producers in the Arabian region, with the former accounting for 90 percent of current production. Most production in Egypt is semi-intensive, but intensive systems are becoming more important. In Saudi Arabia, the industry is essentially intensive and heavily supported by the government.

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