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CHAPTER-3

AQUAPONICS- FISH AND PLANTS IN HARMONY

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Introduction

Aquaponics is a sustainable form of food production system that combine the conventional aquaculture with hydroponics. In normal aquaculture system, unutilized feeds and excretion of fish/ shell fish may lead to deterioration of water quality parameters. In case of Aquaponics system, the water from the culture unit is fed to the hydroponic unit containing plants where the waste is broken down by nitrifying bacteria to nitrates and nitrite that forms the important nutrients for the plants (Fig. 1). Aquaponics is especially valuable in those areas where land and water are sparse.

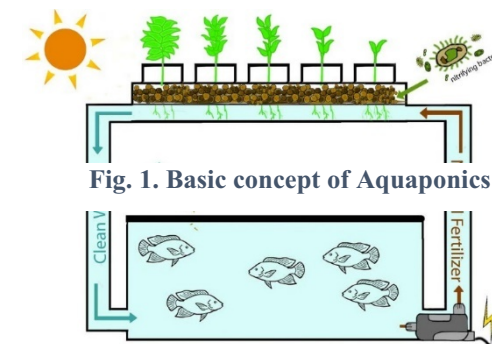


Fig. 1. Basic concept of Aquaponics

The underlying principle of aquaponics is to efficiently utilize water to produce two crops i.e fish and plants. Many