

# AQUACULTURE I

8. WEEK

IN STATIC FRESHWATER PONDS

## WEEKLY TOPICS

WEEK	TOPICS
1. WEEK	WHAT IS AQUACULTURE?
2. WEEK	IMPORTANCE OF AQUACULTURE
3. WEEK	AQUACULTURE: ANIMAL PROTEIN
4. WEEK	HISTORY OF AQUACULTURE
5. WEEK	ORGANISATION OF AQUACULTURE
6. WEEK	CHARACTERISTICS OF AQUACULTURE
7. WEEK	POND CULTURE
8. WEEK	IN STATIC FRESHWATER PONDS
9. WEEK	IN BRACKISH-WATER PONDS
10. WEEK	RUNNING WATER CULTURE
11. WEEK	CULTURE IN RE-CIRCULATORY SYSTEMS (RAS)
12. WEEK	AQUACULTURE IN RACEWAYS, CAGES, AND ENCLOSURES
13. WEEK	MONOCULTURE AND POLYCULTURE
14. WEEK	RECENT ADVANCES IN AQUACULTURE





## Static freshwater ponds


The **water supply** for these ponds can come from various sources:

- Sky ponds: the water comes from a rainfall to fill them
- Run off: these ponds are pits of gravel and sand and water from the surrounding land fills them
- Natural water: the water supply is channelled from streams, rivers or lakes, or comes from underground sources like wells.
- Spring water: they are located in places where underground water has found a way out to the land surface and has become a stream. Usually this water has good quality, since it has been uncontaminated of unwanted fish eggs.



<https://globalaquaculture.wordpress.com/where-to/pond-culture-2/static-freshwater-ponds/>

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- Ordinary fresh water fish culture ponds are still-water ponds. They vary a great deal in waterspread area and depth. Some are seasonal and some perennial. The ponds may be rainfed (also called sky ponds) and/or may have inlet and outlet systems. The water supply may be from a stream or a canal or from an underground source such as wells, tubewells etc. The water retentivity of the ponds depends on soil composition of the pond bottom and subsoil water level.


<http://www.fao.org/docrep/field/003/ac169e/ac169e00.htm#ch5.1.1>

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- ▶ The natural biological productivity of such ponds depends on soil and water qualities. Homestead ponds are usually small and shallow. Commercial freshwater ponds have to have an assured water supply and inlet and drainage systems. In organised aquaculture, the carrying capacity of still-water ponds is enhanced by manuring and/or fertilizing and exercising water quality control. Fish are also fed from an extraneous source for obtaining fast growth.


<http://www.fao.org/docrep/field/003/ac169e/ac169e00.htm#ch5.1.1>

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- Science of freshwater pond fish-culture has made great strides in recent years and there is a fast advancing frontier of knowledge on every aspect of pond culture starting from farm designing and construction upto production of marketable fish of a wide variety of cultured fresh water species of finfish and shellfish. Examples are: carp culture systems in India, China, Israel, Germany, etc; catfish culture in USA



<http://www.fao.org/docrep/field/003/ac169e/ac169e00.htm#ch5.1.1>

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- There is considerable competition with agriculture and other land-use agencies in this system of aquaculture and its success would, by and large, depend on comparative economics of land use. But much also depends on national policies on land use and the encouragement government gives to aquaculture as a means of producing fish protein.

<http://www.fao.org/docrep/field/003/ac169e/ac169e00.htm#ch5.1.1>

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- Traditional or extensive method of culture operation
  - The ponds used in this type of farming system are generally irregular in shapes and sized (3–20 hectares). Usually each pond has a peripheral ditch 10–20 m wide and 30–60 cm deep. In Thailand, the middle portion of the pond is slightly elevated to about 40 cm above the bottom (Fig. 1), while in the Philippines, the pond bottom is entirely flat.
  - Extensive culture operation is considered the simplest culture approach. Seedstock normally come from the wild and supply is season dependent. Shrimp fry found in these farms either gained entrance during water exchange or are intentionally stocked by the farmer with fry collected from the wild. Extensive farming employs very low stocking densities, usually in the range of about 3,000–5,000 fry per hectare. In this grow-out scheme, supplementary feed is not given and water management is by tidal exchange.



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- References
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  - The State Of World Fisheries And Aquaculture 2016, Fao. 2016
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