

POULTRY MANURE NETS HIGHEST FISH PROFITS.

Fish do best in ponds with poultry manure added.

It's common practice, nowadays, to add manure to ponds to increase availability of nutrients for fish. But which type gives the best results? Scientists at the Indian College of Fisheries conducted trials to find out. Results showed that ponds fertilised with poultry manure produce 50% more fish than those treated with cow dung and 19% more than ponds given digested sludge cake.

The experiment lasted for 97 days, and was conducted in cement tanks with 150 mm of soil on the bottom. The three manures were added in two instalments at a rate of 3500 kg per hectare, two-thirds being added initially and the remaining one-third 37 days later.

A week after the initial fertilisation, the ponds were stocked with fingerlings of Catla (*Catla catla*) and the common carp (*Cyprinus carpio*) to an equivalent stocking rate of 6,400 fish per hectare.

Fish in ponds treated with poultry manure outperformed the others by quite a large margin. The reason seems to be that the addition of poultry manure gives higher production of plankton, and plankton, as previous work has clearly shown, has a direct bearing on fish weight gain.

The amount of plankton produced is dependent on the amount of soluble inorganic salts available. Poultry manure had more phosphorous and nitrogen than the other two manures and so gave a higher rate of plankton production.

Financial returns from ponds treated with poultry manure were also higher than those treated with cow dung or digested sludge cake. The cost of manure per kilogram of fish produced was Rs.1.27 for poultry manure, Rs.1.06 for digested sludge and Rs.2.95 for cow dung. But as ponds treated with poultry manure produced 500 kg/h/year more fish than those given digested sludge, net profits are greater with the poultry manure treatment. There is another plus factor: poultry manure, like digested sludge, is dry and much easier to transport to the pond than cow dung.

FISH PRODUCTION FROM THE THREE TREATMENTS.

	Weight (g)		av. production kg/h/90 days	Total production. kg/h/year
	Initial	Final		
Poultry Manure	23.75	150.38	378	2278
Catla Carp	23.75	121.41	294.7	
Digest-ed. Sludge	23.75	124.38	322	2156
Catla Carp	23.75	93.27	209.6	
Cow Dung	23.75	109.51	274.4	1811
Catla Carp	23.75	77.54	172.1	