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Growing filamentous algae as the major food source

The green algae are the most common food of bangus and siganid. They grow luxuriantly in some fishponds. There are three species of filamentous green algae: *Enteromorpha tubulosa*, *Cladophora* and *Chateomorpha*.

E. tubulosa is light green and resembles chicken intestines. Its fine narrow and glossy tubes can be easily mistaken for *jusi*. It has no spores or sexual gametes, and dies when directly exposed to sunlight and high temperature.

Cladophora and *Chaetomorpha linum* (locally known as *lumut jusi)* are almost identical. These are light golden green when very young, and show no evidence of spore or gamete formation. Maturing *Cladophora linum* is dark green, with parts of its filament becoming black and coarse textured.

At all stages of growth, they grow better under diffused light and low temperature. Their color changes at every growth stage and with their physical condition.

Aside from fishponds, these water plants grow wild in rivers and streams, the lushness of their growth depends on the water's condition and the fertility of the soil on the pond bottom. These multiply fast - eight times in 24 h under very favorable conditions and grow in patches due to frequent changing of pond water.

These algae also grow in ponds with turbid water coming from rice paddies and rivers during the rainy season. But too much turbidity and rain water can kill young algae.

Fish farmers usually buy planting materials from other farmers who are already growing the algae. The best time to plant the algae is late afternoon or at night when the water is cool. When planted at the right time, algae will settle down on the pond bottom.

Another planting method is to drain the pond entirely and plant small fragments of algae right on the muddy pond anytime of the day. Flood the pond immediately after planting.If you fail to let in water after planting, the algae will dry up and if they grow at all, their growth will be retarded.

To plant algae, set clumps as big as your palm on the pond bottom. If planted in bigger fragments, the algae will die and decay. Don't use black, floating algae as planting materials because these are dead.

Four to five days after planting, broadcast ammonium sulphate at the rate of 1-2 bags/ ha, depending on the fertility of pond soil. Never apply nitrogenous fertilizer on a dry pond. Use a banca when broadcasting fertilizer so you won't disturb the plants.

To make sure that you use the right kind and amount of fertilizer, ascertain the fertility of your pond soil. Get soil samples (10-15 cm deep) in several portions of the pond bottom, air-dry and submit these to the Bureu of Soils for analysis. One-half kilogram of soil samples will do.

You may also fertilize your pond with animal manure, which is as effective as inorganic fertilizers. Apply it at the rate of 500-1,000 kg/ha before planting algae. Don't use animal manure excessively; lab-lab or microbenthic organisms will grow and overwhelm the green algae.

To conserve fertilizer for algal growth, don't drain the pond for 7-10 days after fertilizer application.

Source: Urmaza, Sr.,Marciano, "Growing siganid on a commercial scale",**Greenfields Magazine.** Vol. 13(6) June 1983. p 29