



Figure 7. Pakcoy⁶

Feeding

The amount of feed in this integrated farming system must be regulated because the remaining feed that is not eaten by fish will rot and cause a decrease in water quality. Adequate feed is given 2-3 times a day with an amount of 3-4% of the total weight of fish in this method. During feeding pay attention to the response of the fish to the feed. If the fish is not responding to the feed, stop feeding. The feed given to fish in this integrated farming system can also utilize household organic waste that has been fermented first.



Figure 8. Fish feeding integrated with water spinach farming⁷

Water Quality

Water quality parameters are important profiles in describing the environmental conditions of a waters, especially the aquaculture environment. The need for good water quality in intensive fish farming requires an environmentally friendly technology based so that the organic matter is low in the maintenance media and the waste is wasted into public waters [1]. The role of water quality in integrated farming system is crucial, because the volume of water used is very limited. Maintenance of water quality can be maintained by changing water by 20-30% periodically so that the water is in good condition for fish. Oxygen plays an important role as an indicator of water quality, because dissolved oxygen plays a role in the oxidation and reduction of organic and inorganic compounds [8]. Temperature fluctuations occur in the cultivation of this method if the bucket is placed in an open location (outdoor) which would be influenced by environmental temperature, both rain and heat from the sun. An increase in temperature can cause a decrease in oxygen content so that oxygen intake decreases and can cause stress to fish. The right temperature will increase the activity of eating fish so that the fish grow faster. An increase in temperature can also result in an increase in the toxicity of a pollutant to aquatic organisms [1].

Changes in pH are determined by photosynthetic and respiratory activities in the ecosystem. Photosynthesis requires carbon dioxide which by autotroph components will be converted into monosaccharides. The decrease in carbon dioxide in the ecosystem will increase the pH of the waters. On the other hand, the respiration process in the ecosystem will increase the amount of carbon dioxide so that the pH of the water decreases [1]. The use of probiotics is highly recommended, especially to reduce odors, as well as suppress pathogenic microbes that have the potential to cause disease in fish. The recommended dose is 1 ml/liter of water. The recommended water quality for this method is as follows:

Table 1. Recommended water quality for integrated farming system

No.	Parameters	Measurement Results
1.	Temperature	23-32°C
2.	Dissolved oxygen	2-6 ppm
3.	pH	6.68-6.97

⁶ <https://www.grid.id/read/042576371/9-manfaat-pakcoy-untuk-kesehatan-menyehatkan-kulit-hingga-meningkatkan-kekebalan-tubuh?page=all>

⁷ <https://kabarbanten.pikiran-rakyat.com/seputar-banten/pr-591431733/mengenal-budikdamber-usaha-perikanan-yang-digrandungi-milenial-pandeglang>

