

This research aims to analyze the influence of production factors that pond tarp, pelet, labour, and germs of catfish on the enlargement cultivation of catfish with tarp system in Ngawen Subdistrict; to analyze the optimum usage of production factors on the enlargement cultivation of catfish with tarp system in Ngawen Subdistrict; to analyze the profit on the enlargement cultivation of catfish with tarp system in Ngawen Subdistrict, Gunungkidul Regency.

Basic method that used in this research is descriptive method. The method that applied using survey method. Method for research-area determination was case study method. Location determined method was done in purposive sampling. Besides, for collecting the respondents used census method. Kind of data used primer and secondary data. Data sources were obtained from catfish farmers in Ngawen Subdistrict, Subdistrict Office of Ngawen, Village Offices, literatures, and other institutions related to the research. For collecting the data, the technique used were observation, interview, and note-taking.

To analyze the influence of production factors such as pond tarp, pelet, labour, and germs of catfish to the production on the enlargement cultivation of catfish with tarp system in Ngawen Subdistrict used Cobb-Douglas' Production Function analysis. To analyze level of optimum use of production factors on the enlargement cultivation of catfish with tarp system in Ngawen Subdistrict used optimization analysis. To analyze the advantage of catfish on the enlargement cultivation of catfish with tarp system in Ngawen Subdistrict used the profit analysis.

The result of the observation on the enlargement cultivation of catfish with tarp system in Ngawen Subdistrict, Gunungkidul Regency showing that pond tarp, pelet, labour, and germs of catfish the influence the catfish production.. The result about the advantage on the enlargement cultivation of catfish with tarp system in Ngawen Subdistrict, Gunungkidul Regency is profitable. Production factors that used on the enlargement cultivation of catfish with tarp system in Ngawen Subdistrict, Gunungkidul Regency not yet optimal

Keywords: Production Factors, Production, Catfish with Tarp System, Optimization