

## **ABSTRACT**

*Pelleted feed is a primary necessity in fish and livestock farming; however, the high price of commercial feed drives the need for self-produced alternatives. This study aims to design and assemble a pellet-making machine with a capacity of 30 kg/hour using an electric motor as the main power source. The research stages include design planning, material selection, frame fabrication, component assembly (½ HP electric motor, pulley, v-belt, and type 32 pellet unit with a 3 mm mold diameter), and performance testing.*

*The assembly results show that the machine operates properly, producing pellets with uniform size and sufficient density, while offering higher efficiency compared to manual methods. The total manufacturing cost of Rp 2,298,500 is considered economical for small- to medium-scale farmers and fish cultivators.*

*Therefore, this pellet-making machine is expected to serve as an alternative solution for farmers and fish cultivators to independently produce feed, reduce operational costs, and enhance self-sufficiency and efficiency in aquaculture and livestock farming.*

**Keywords:** *pellet-making machine, electric motor, assembly, fish feed, production efficiency.*