

Formulated feed development for common octopus (*Octopus vulgaris*)

Jesus Cerezo Valverde

Formulated feeds have been recently developed that are acceptable to octopus with good growth rates and feed efficiency. It was deduced that such feeds should be stable in water and with a firm and homogenous (non-granular) texture, have a degree of flexibility so as not to disaggregate during manipulation. Also, the presence of chemical substances that might lead to rejection had to be avoided. Fish, crustacean or mollusc paste mixed with different binders (alginates or gelatines) gave a moist feed (>70% water) with a texture that was suitable for manipulation and ingestion. Semi-moist feeds (41-54 % water) include approximately similar parts of water and dry ingredients (meals or freeze-dried or protein concentrates). Also include binder such as gelatine, starch or gums. Specific growth rates were between 0.4-1.4 % body weight/day. Noteworthy is the high feed efficiency rates obtained with semi-moist feeds (80-116% of the food consumed). Our results suggest that efforts should be aimed towards improving intake, by optimizing textures or including attractants, as well as improving nutritional composition. In this sense, studies on short-term starvation and exhaustive studies on the biochemistry of cephalopods and their natural diets are helping us in understanding nutritional requirements for cephalopods.