

**Technology No. 20**

**PROTEIN CONCENTRATOR**

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**Division:** Fish nutrition, Biochemistry and Physiology Division

**Technical details:**

Aqua feed industry is facing competition with other food/feed industry for protein rich ingredients like soybean meal, fishmeal etc. This stimulates the cost of production of aquafeed and it became a necessity to find out an alternate low cost ingredient which can replace the conventional ingredients.

The by-products of oil industries come out as seed cakes/seed meals which are rich in protein. Jatropha seed cake contains 23 % protein, rubber seed contains 21-25% crude protein are few examples.

**Salient Features**

Jatropha seed cake, rubber seed are used for this purpose. The presence of anti-nutritional factors is an obstruction for its use in feed. In order to remove these constraints, a protein concentrate from Jatropha seed cake (78-80% protein; 93% digestibility), jatropha protein isolate (87.5%) and an isolate from rubber seed meal (90.8 %) is prepared.

The equipment designed can utilize the agriculture waste as its raw material and extract the protein from it.

The equipment work under the principle of isoelectric precipitation and is a user friendly one.

**Benefit**

The dried product come out of the equipment can be utilized as a raw material for aquafeed preparation

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