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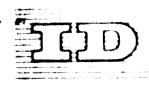
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United Nations Industrial Development Organization

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Rabat, Morocco, e - 12 Nee miter 1967

PROTECLYSATE OF SARDINES 1

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We regret that some of the pages in the microfiche copy of this report may not be up to the proper legibility standards, even though the best possible copy was used for preparing the master fiche.

In 1965, the Institut Scientifique Marccain de la Pêche included in its research programme a study of the production of marine proteclysate using the Moroccan sardine. Following highly encouraging behaviory findings, it was found necessary to collaborate with private enterprises at the industrial level with a view to organizing and financing industrial operations.

The process consists in the production of a marine proteolysate from a raw material whose processing is very difficult (<u>sardina pilchardus</u> or any other seafood or fish waste), using various engymes in an acid medium. This process was patented in Paris on 29 May 1967 under No. 100, 202.

The product obtained is entirely natural, from the arganic and biological as well as the metabolic points of view, and can therefore be assimilated by the human body; it resembles our tissue and cell structure since it is produced according to a biological principle. As is shown in the following table, it contains all the indispensable amino acids as regards both quantity and quality, and all the biocatalysts (vitamins) except for vitamin C.

This sardine protectly sate is a whitish powder with an odour somewhat resembling that of powdered milk; its flavour depends on the percentage of free amino acids.

Its price, on the basis of 0.055DH per kg of cardines, is approximately 1.80 to 2DH per kg. The capital outlay for equipping a plant with a capacity of 1,000 t/year is 3,500,000 to 4,000,000DH.

COMPARATIVE ANALYSIS OF SOME PROTEIN CONCENTRATES

Composition :	Portune	Kest	Powder i
	protections	1+24	milk
Finchemical Total protein Ash Moisture Lipids	たー//5/1	+ 3.50	=0.06
	5・5-15/2	3.4.	16
	4だ	11.00	5
	(0・70%	5.44	10.06
Imagensable amino acids Isoleucine Lysine Leucine Methichire Histidine Phenylalanine Threenine	4.00% 8.25% 6.70% 2.10% 2.54% 3.40% 3.50%	. 6.00 7.50 7.00 2.30 2.90 1.30 3.30	8.50 7.25 11.00 3.40 2.60 5.70
<u>Vitamins</u> , in mg/100g A B1 B2 B12 PP B6	0.80 0.055 0.30 0.018 0.48 0.15	0.004 0.05 0.20 Traces	0.06 0.70 0.70



