

PROCESSING OF COMMERCIALY IMPORTANT SEA WEED

EXTRACTION OF AGAR FROM

ABSTRACT I

This first experiment was conducted to extract Agar from *Gracilaria*.

Two extraction methods were compared with a view to evaluate the highest yield and the best quality.

Agar was extracted at different pH levels of 4, 4.5, 5, 5.5, and 6. the quality of the product was checked by appearance (colour and lustre), moisture, crud ash, and crud protein contents. The optimum pH was used to determine the optimum heating time. Agar was extracted at different heating times of 1, 2, 3, 4, and 5 hours. Three drying methods were used in comparison, electrical dryer, solar dryer and in the sun.

Extractions at pH 5 gave the highest yield (48.66) and the best quality (water content 19.5%, crude protein 2.1%, crude Ash content (3.7%). The ideal heating time was 4 hours based on the yield (43.60) and quality was (gel strength 158, water content 14.6%, crude protein 2.7%, crude Ash content 3.9%, melting point 3.0). Statistical difference between the three drying methods was not observed.

UTILIZATION OF THE WASTE PRODUCTS IN THE SHELL FISH INDUSTRY

4.0 PREPARATION OF CHITIN FROM PRAWNS WASTE

ABSTRACT II

This experiment was conducted to extract Chitin from prawns and lobsters wastes. Three methods were used for this task. The best method can be identified according to the yield and quality. Colour, yield and texture of chitin were considered in order to determine its quality.

Colour, texture and nitrogen content (N%) were satisfactory in the first method, but the yield was somewhat low.

Time requirement is also low.

The lowest nitrogen percentage (N%) was found in second method, however Ash content was invisible. Both colour and texture were not in good condition, but the yield is very high. The third method, both finding out and handling lobsters shells were difficult, time consuming as well as cost of labour are high in this method.

The producer could select the best method suitable for his purpose depending on the chemical, physical and economical properties.

PREPERRATION OF AMBUL THIYAL AND IMPROVEMENT OF IT'S
SHELF LIFE

ABSTRACT III

This experiment was conducted in order to improve the shelf life and quality of ambul Thiyal which is one of the traditional methods to preserve fish, mainly in the southern province of Sri Lanka.

As advanced technology is not required for this purpose, by improving this method this can be adopted as a self employment in domestic scale.

0.2% Potassium sorbate was used as a preservative and a sample without the preservative was used as the control. In accordance with the taste panel assessment control sample can be stored for about six days while treated sample remains acceptable for fourteen days under ambient temperature.

Therefore potassium sorbate can be used to improve the shelf life of ambul thiyal.