



FATS AND PROTEINS RESEARCH FOUNDATION, INC.

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"THE DIRECTOR'S DIGEST"

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Technical Director

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You have recently received a copy of the final report covering the pilot plant studies on the enzymatic rendering process. Although this report is clear and comprehensive, and was accompanied by some summary comments, this study is so important to all of you that some aspects will be emphasized here.

The report shows clearly that the process is technologically feasible. Its principal advantage over rendering techniques in current use is the uniform nature of the end products irrespective of the proportions of fat, bone and protein tissue in the raw feed stock. The high protein meal obtained is relatively low in ash and should be particularly suitable for use in chick rations, pet foods and calf starters. The amino acid analysis of the protein powder indicates that the product is a good high quality protein supplement. Feeding tests now being initiated will give definite answers on this point. The "clean" bone fraction obtained should be an acceptable product for further processing or could be used as a feed ingredient particularly in rations for ruminants. Since the temperatures used in the process are low, heat damage to both the fat and protein fractions are at a minimum.

The process, after the enzyme hydrolysis, could readily be made a continuous, almost completely automated operation. Careful control of time and temperature throughout the process is essential. Economically the process is attractive if the protein powder and bone fraction can command a higher price than is currently quoted for meat meal and raw bone.

To evaluate completely the suitability of the process as a commercial operation, additional laboratory and pilot plant studies will be required. Since almost all of the pilot plant work was done

with shop fat and bone, additional studies are needed using different types of raw feed material. Also additional laboratory and pilot plant studies will be needed to determine the most economical enzyme and time-temperature conditions for the hydrolysis with different types of raw feed stock. Different types of drying techniques should also be studied in a pilot plant operation.

NEWS NOTES

Well-informed scientists have known for many years that fats and proteins for human food and livestock feed might someday be produced from petroleum products. That "someday" is here! The spring meeting of the American Oil Chemists' Society to be held in Houston, Texas April 25-28, 1965 will include a session on Fatty Acids, Alcohols and Food from Hydrocarbons.

The following excerpts from an article on activities of the 89th Congress, published in Chemical and Engineering News, January 4, 1965, pp 16-17, will be of interest to many of you:

"There should be no pressure to outlaw nonbiodegradable detergents unless detergent makers fail to meet the self-imposed deadline for the switch to biodegradable products."

"Pesticides are not likely to come under the Congressional spotlight as they have in the past. Sen. Abraham Ribicoff (D.-Conn.) says he will not reopen his pesticide investigations unless the system of pesticide control now in effect shows sign of deteriorating. He may turn his attention to other environmental hazards but has not yet singled out any special area for investigation."

"Sen. John McClellan (D.-Ark.) and his patent subcommittee plan to make a thorough study of the patent laws to see if changes can be made to speed up processing of patent applications and improve the validity of patents issued. He believes changes in the law may be needed because administrative changes in the Patent Office have had little effect in reducing the backlog of patent applications."

The Research Committee and The Board of Directors of FPRF will meet in Chicago on February 1 and 2 to discuss and evaluate the current projects supported by FPRF and make plans for the future program of your Foundation. If you have any matters that should be brought to the attention of the Research Committee or The Board of Directors, please contact a member of either group or notify the Technical Director.