8. Encourage speakers at meetings to help increase membership by adding comments about the Association and its objectives.
9. Invite all members of the Association to send in any suggestions to the Membership Committee that might be of help in increasing the effectiveness and usefulness of the committee toward increasing membership in the Association.

Respectfully submitted,
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THE NEED FOR SANITATION IN THE BAKING INDUSTRY

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Editorial Note: This is the first of a series of papers on bakery sanitation which was presented at the Arizona Bakery Sanitation Seminar, sponsored by the Phoenix Health Department, Phoenix, Arizona, October 6, 1954.

The National Sanitation Foundation has as its slogan "Sanitation is a way of life". Sanitation is much more than this. In fact, since time immemorial, sanitation has been a way of survival. Sanitation is more than the usual concept of housekeeping. In its broadest sense it is the production of a wholesome product, in a clean plant—a product free from foreign or deleterious material.

Bakery foods are nutritious foods; also, because of their nutritional quality they are attractive to rodents and insects. Many are subject to bacteriological activity; hence, sanitation is a battle against insects, rodents, and bacteria. In years gone by, foods, including bakery foods, were prepared at home in small quantities. Insect infestation and rodent depredation were at a minimum. As the world became industrialized, the production of food became more complex. It now has become necessary to store foods for long periods of time and to move them great distances. The longer food is held and the further it is transported, the greater is the possibility for insect and rodent damage.

In the baking industry, our first problems of sanitation arise on the farm. They are then greatly magnified in storage, intermediate processing, and in transit. Many of our ingredients, particularly wheat, are subject to insect infestation in the field. In some instances, ingredients are subjected to rodent contamination before harvest or during intermediate processing.

The number of insect species that affect bakery products runs into hundreds. Many of these insects are native to this country while others have been imported, in most instances, involuntarily. Recently, a new insect has appeared in this country—the Kapra beetle. This insect was widely distributed throughout the rest of the world, but in the past year or so it has been found in the far southwest.

Rodents that affect bakeries are not native to this country. Man brought them from Europe and other parts of the world. Today, rodents such as rats and mice, are universally distributed throughout the country. In fact, the only area of the Northern Hemisphere not infested with rats is the Province of Alberta, Canada.

Since our problems are many before we receive our ingredients, we must outline a program that will combat not only problems that arise during the manufacture, but which will protect us from the errors of our suppliers. The following is an outline of our needs for sanitation processes and what we should do to meet them.

I. Examine incoming ingredients.
A. Check cars for cleanliness.
B. When possible, sift representative samples from each shipment.
C. Examine individual bags and cartons for rodent and insect damage.
D. Send samples to laboratory for microscopic examination.
II. Store ingredients and supplies under good conditions.
A. All materials stored on skids.
B. All stacks away from walls.
C. Proper turnover.
D. Need for orderly storage.
E. Clean storage areas.
F. No old or obsolete materials, unless regularly cleaned and re-
III. Have good operating practices.
   A. Bags brushed before emptying contents.
   B. All materials, where possible, sifted through a fine mesh screen before use.
   C. Ingredients stored in covered containers.
   D. Seamless containers used for scaling and transfer of ingredients.
   E. Equipment provided which can be readily cleaned.

THE BAKERY SANITARIAN

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Since the enactment of the Food and Drug Act of 1938, great progress has been made in the sanitary standards of the baking industry. We have departed from the old idea that a food plant must be kept clean because the law requires that we do so. The Baking Industry recognizes that it pays to keep a plant clean. We have a responsibility to protect the purity and quality of the foods we make for human consumption. We have departed from the occasional clean up campaign. We recognize a sanitary bakery is a year round job.

In order to satisfactorily clean a bakery and keep it in a sanitary condition, a well organized and effective sanitary program must be established. This requires that management be familiar with the basic principles of sanitation. It must have sufficient interest to provide adequate personnel for doing the job. To carry out this program you must have a trained sanitation crew who are familiar with the proper use of cleaning equipment and materials. A recognition that competent supervision and full appreciation of the need of such are without a doubt the most important factors in a good sanitation program. The effectiveness of a sanitation department is only as strong as the individual in charge of the program and the degree of authority given to him.

The bakery sanitarian, to do an effective job, must be responsible only to management. There are many reasons for this. I believe the most important is the difference of opinion within an organization as to what constitutes sanitation. If he is subordinate to the superintendent, you can well appreciate that his ideas and suggestions will get lost before they reach the top.

Sanitation today is very different from that practiced some years ago. Production men, with their beginnings established in the so called good old days, find it difficult to bring their thinking into line with the present day ideas of sanitation. Your bakery sanitarian must have the following requirements: he must have leadership qualities; he must also possess some technical knowledge of cleaning materials, and know the functional properties of ingredients in various insecticides and fumigants; he must have knowledge of the problems of production operations, equipment design and building construction; and he should be able to recognize the common insects that infest the bakery.

The planning and supervision of the following activities is the responsibility of the sanitarian:

1. Inspection of the plant
2. Cleaning of the plant
3. Proper spraying of the plant for insect control
4. Fumigation of specific equipment for insect control
5. Establishment of a rodent control program.

Sanitation in the Baking Industry

F. Regular cleaning of production areas.
G. Daily cleaning of product zone areas in contact with product while wet.
H. Pans and racks cleaned periodically to remove thin layers of burned on grease.
I. Baking pans stored on clean trucks and inverted when not in use.
The above represent only a few of the conditions which must be controlled through a sanitation program. As our products vary, so do the needs for sanitation. Sanitation is especially important in the production of those products which can develop food poisoning organisms.

The need for sanitation in the bakery is great and no one will ever develop a magic formula for producing a sanitary plant. If we concede that hard work is the basic ingredient and if we accept the necessary hard work, we can properly apply elbow grease and, as a result, have a plant that is entirely sanitary.

Mr. Ziemke is a graduate of the University of Minnesota with a B. S. in Agricultural Biochemistry. Since leaving Minnesota, he has had wide experience in the milling and baking industry having been associated with the Commander Larabee Milling Co.; the Mennen Milling Co.; the National Yeast Co.; and the Quality Bakers of America. In his present position as Chief Chemist, Fairfax Bread Co., Safeway Stores, Mr. Ziemke's activities include the fields of quality control, sanitation, and production for the United States and Canadian bakeries of his company.

You probably cannot find a man within your organization already having all of the above qualifications or familiar with the above functions. However, you can in all probability find a man on your payroll that can be taught the know how of each and all of these. In many parts of the country there are short courses in the practice of sanitation. Your sanitarian should be permitted to take advantage of these. There is also in the field of sanitation a group of highly trained consultants who are available for a nominal fee to serve you in your training program and to give you the outsiders' point of view.

Generally speaking, however, my remarks on the bakery sanitarian are confined to the bakers own in-plant sanitarian and not that of a specialized man having broad educational background in theory and practice of sanitation.

In selecting this sanitarian it is best not to take a production worker who has been working on the processing line for a considerable number of years. Such a