GENERAL SANITATION IN THE BAKERY INDUSTRY

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Until recent years the effect of proper sanitation on production was not considered as a major item. However, as studies were conducted on safety and quality control, a third factor became more and more apparent. That is, the personnel of a bakery is greatly affected by the conditions under which they work. In other words, clean floors, walls, locker rooms and equipment raise the morale factor and result directly in increased production or better quality products.

In bakeries where sanitation values have been highly developed, aggressive management can take the opportunity to benefit even further by cashing in on the sales appeal of the program. Open house for public inspection, school tours, television programs, etc., can pay big dividends.

Properly planned and carried out, sanitation pays its way. The planning should be considered just as carefully as the building of a recipe for a new product. For instance, it would not be possible to bake a desirable cake using flour and water only. Neither is it practical to clean painted walls, heavily contaminated floors, bread pans and utensils all with the same cleaner. When a good recipe is worked out for one of your products it should be put down in black and white and thereafter it should be followed carefully to be sure of uniform results. Again, the same thing should be true when setting up a sanitation program. Whether the shop is a small type retail operation or a large diversified plant, a survey of the cleaning problems, analysis of the types of compounds needed for easy cleaning and method of application, can be made. A plan written up with separate direction cards for each area will go a long way toward achieving the desired result.

The compounds selected for cleaning in any food plant should be of soapless nature. Soap leaves a greasy film which attracts dust and may harbor mold and bacteria. In a shop which bakes bread only, the cleanup is greatly simplified.

Here the locker rooms, floors, bread racks, equipment surfaces, walls and pans are the major items needing attention.

Locker rooms should be cleaned daily using a compound which combines cleaning and disinfecting properties. If the cleanup is conducted properly there should be no need for deodorant materials which serve only to cover up offensive odors originating, for example, from unclean toilet bowls and urinals or floor drains. Painted surfaces should be cleaned with a mild, soapless cleaner on a regular schedule. While the locker room is not usually open for public inspection, it certainly is of vital importance to the employee since he begins and ends his work day there.

Bread racks and similar portable equipment may be hand cleaned with brushes and a suitable compound should be used for this purpose. In larger bakeries, power cleaning is a very practical development from the standpoint of economy. Here again, a proper compound for spray or pressure cleaning, correct concentration, and proper temperature, together with time of contact are features which should be established and followed on a regular schedule.

The exteriors of dough mixers and other like equipment will accumulate grease from the air, and regular cleaning will minimize the possibility of odor development which may be imparted to the finished product.

The maintenance of bread pans is very vital to the quality of the bread. In many bakeries today the pans are commercially washed and glazed on a regular basis. Where this work is undertaken by the individual plant it can be done with a saving to the operator provided the equipment and knowledge of how the work should be done is available and used. Where pans are not glazed they certainly should be cleaned often enough to protect the pan itself and likewise protect the bread. Bread baked in a heavily carbonized greasy pan may come up with a bake shop odor. The cleaning of bread pans is a separate subject in itself. Anyone interested in that procedure should obtain full information on type of equipment, proper compound and details of application.

It is recognized practice to rotate raw materials in storage rooms. When an area is vacant it should be thoroughly cleaned before again being used for new supplies. When a bakery produces custard and cream fill products it is obvious that all containers and processing utensils used in this department...
need special attention if high quality products are to be made which will have good keeping qualities. Spoilage from bacterial action is both dangerous from a public health standpoint and certainly contributes to loss of business if it occurs. Equipment and utensils should not only be washed but carefully disinfected after each production shift. Washing and disinfecting is usually accomplished by the hand method. Here again, correct compounds, properly used are very important. A direction card posted in this area will prove most helpful to cleanup personnel.

In a pie bakery, the containers for handling fruit are of major importance. The surface of the containers should be non-porous and smooth. In one large pie bakery where wooden tubs were used for fruit handling, very definite deterioration of the fruit was immediately traced to these tubs. The tubs were loaded with bacteria of a nature that, while it did not cause a problem of spoilage after baking, the fruit developed very undesirable flavors.

Mechanical washing machines of various types for washing pie tins, cookie sheets, mix utensils, etc., are being used more and more. The labor savings afforded are often substantial. If these machines function properly, good results can be obtained. However, if the compound used fails to protect the metal surfaces of the pan or utensil being cleaned, or if solution strengths are not maintained uniformly, the advantages may be easily lost. Compounds for such machines which will clean effectively and at the same time fully protect the pans and utensils are available. The solution concentrations can be held at very nearly a perfect level by an electronic feeder control unit. A direction card is a must for this type of cleaning and regular inspection of the machine condition and operation should be made.

Floor maintenance is probably the least interesting of all sanitation problems. At the same time it is one of the most important. Strictly from a safety standpoint, floors should be kept as clean as possible at all times. There are many kinds of flooring and each one presents a different problem. Hardwood floors, well sealed, can be maintained easily by simply sweeping and by periodic dry mopping with a cleaning compound which will not attack the sealed surface. Tile and concrete floors in mix rooms present a different problem. When new, they can be sanitized without too much difficulty. However, as these usually are in an area where heavy contamination builds up quickly they are subjected to harsh cleaning methods and often compounds which attack the tile grout or concrete surface. Fruit acids add to the deterioration once the surfaces are broken, crevices between tiles or tiny cracks in concrete afford a perfect habitation for growth of bacteria and odors resulting are often very undesirable. Since floors are uninteresting to begin with, it is often true that their cleaning and maintenance is conducted on a haphazard basis. This can be remedied when a complete survey is conducted for planned sanitation.

Very often in hard water areas, a film of scale builds up in the wash tanks where pans and utensils are hand washed. This scale is porous, like a sponge, and bacteria, mold or yeast find it a ready made incubator. As a result the equipment being washed may actually be contaminated while being physically cleaned. Scale may form in pan washing or rack washing machines with the same result. Scale build up in water jackets of dough mixers, circulating and storage tanks, condensers, heating coils, etc., not only may become a source of off odors but impair the efficiency of the equipment. Scale removal is accomplished easily with compounds for that specific purpose without danger to the equipment. While not a daily problem, scale should be considered and taken care of whenever it occurs.

You probably have heard of the two men working on a construction job who were asked the question, "What are you doing?" The first replied, "I'm laying bricks, can't you see?" The second man said, "I'm helping to build one of the most beautiful buildings this town will ever see." For many years the job of cleaning up was given to the lowest paid, poorly skilled labor available. Of recent years the relation of good sanitation practice to increased sales has received much greater recognition. As a result, aggressive management has realized the value of hiring better labor and upgrading the status of those individuals and their contribution to business success. Nothing is more effective in gaining that objective than a planned program of sanitation. In a large bakery a sanitarian or foreman should direct the activity. Such a program necessarily includes:

1. A survey of the bakery requirements.
2. Formulation of a recipe for each separate cleaning job.
3. Time interval frequency for each job.
4. Complete instructions in black and white for the entire plant, area by area.
5. Correct compounds with full "know-how" for each type of cleaning.
6. Adequate supervision of competent personnel.

The individual bakery where sanitation standards are high is in a very strong position to bid for more business. By the same token, as sanitation standards are raised nationwide the whole industry is better equipped in the constant battle for a greater share of the food dollar.

J. M. SCOTT RETIRES

The retirement of Mr. J. M. Scott, Chief Dairy Supervisor, Florida State Department of Agriculture, was announced in January 1955. Mr. Scott had completed over 25 years in this capacity, having been in charge of the Dairy Division since it was organized in 1929. Prior to that time he had served over 22 years with the Florida Agricultural Experiment Station, making the enviable record of almost a half century of outstanding service to the State of Florida. His successor will be Alex G. Shaw, who has also been with the Dairy Division since 1929 and state dairy supervisor of the north central Florida district. Mr. Shaw will be moving from Tallahassee to Gainesville where the headquarters of the Dairy Division are located.