

Agriculture by Marcia Merry

Behind the outbreak of salmonella

Labor speed-up in the dairy processing industry is taking its deadly toll.

Despite all the publicity about the salmonella poisoning outbreak this spring in the five-state Chicago milk-marketing region, the simple facts of labor speed-up at the contaminated dairy plant, and resulting sanitation breakdown, have gone unreported. The "moral of the story" behind the disease outbreak, in which at least five people died needlessly and another 15,000 were affected, is that unless the general economic breakdown is reversed, the public will be struck by more such disease outbreaks from improper food processing and collapse of basic infrastructure.

The same general breakdown is the cause of another tragedy reported in mid-June, when 28 deaths, mostly of pregnant women and infants, were linked to bacteria found in a Mexican-style cheese manufactured in southern California. The bacterium *listeria monocytogenes*, which causes an infection with flu-like symptoms, can easily be destroyed by proper pasteurization.

The salmonella outbreak occurred in March and April this year, when the bacterium was transmitted in low-fat milk products processed and shipped from the Hillside Dairy in Melrose Park, near Chicago. Hillside Dairy milk was distributed to five states—Illinois, Iowa, Indiana, Wisconsin, and Michigan—and within a short period, salmonella poisoning was reported in hundreds, then in thousands, of cases.

Within a short period of time, the tainted milk batches were identified, and the remaining milk cartons were recalled from the stores. The Hillside

plant was shut down and its machinery literally taken apart, to determine where the contamination came from.

After it was confirmed that no salmonella bacteria was reaching the plant through its raw milk supply from Wisconsin farms—though salmonella organisms occasionally do turn up in raw milk—then the question of the source and contamination in the plant was posed.

After viewing the available facts, area farm and labor representatives and dairy engineers have concurred: Deliberate labor speed-up in the processing plant resulted in a breakdown of cleaning procedures, and the production of tainted milk.

One month prior to the release of the contaminated milk, the owner of Hillside Dairy, Jewel Foods, was itself taken over by American Stores, of Salt Lake City, Utah. American Stores is a food giant that operates supermarket chains, including Acme, and food processing facilities.

American Stores almost immediately imposed labor and equipment speed-up practices at the Hillside processing plant, and began running far more milk through the facility than it was designed to handle. The food workers complained and there was conflict with management, but the speed-up remained in effect. As a result, the cleaning cycle broke down. The time allocated for cleaning the processing equipment—which must be done in place—was cut back, and the conditions were created for a bacteria outbreak.

So far, the reports in the regional media, and the health investigators'

releases, have not been specific on the manner in which the contamination took place and spread. However, milk experts think this is the picture:

The outbreak likely occurred in the area where skim milk is received in tank trucks from the farm supply depot, then stored and blended with whole milk to reach the right butterfat percentage, and then pasteurized and sent out. When the storage, receiving, and pasteurizing processes are running at overcapacity, the cleaning methods may be inadequate, and unpasteurized product may mix in with pasteurized. Government officials are already investigating the possibility of this occurring at the point of "cross-over" of various flow lines through the cluster valves. Dairy engineers say the cluster valves are a likely point of contamination, where milk is shunted through different valves, and some unpasteurized product might be siphoned off into treated milk.

Since none of the raw milk supplies to the plant were found to have salmonella, the origin of contamination would likely be one of the various sources common to food processing facilities, for example in the powdered milk used to fortify the final product to keep it from being "blue" and thin. The powder easily clumps up around equipment, especially if the cleaning is not done thoroughly, and any salmonella present would have the opportunity to grow and be transmitted.

Under proper conditions of pasteurization, the salmonella and other bacteria are all killed. However, any breakdown in the needed procedures eventually guarantees disease outbreak.

One milk expert compared the situation at the Hillside Dairy to what has happened under airline deregulation—an American Airlines jetliner lost an engine in flight.