

SALMONELLA-FREE GUARANTEE

Each year in the U.S. there are millions of cases of foodborne illnesses that frequently originate from poultry contaminated with salmonella, campylobacter or other microorganisms. Inadequate cooking and/or cross-contamination by the consumer or foodservice operator are typical causes of foodborne outbreaks. Poultry contamination is not limited to the U.S., however; it is a global problem. Some countries have taken dramatic steps in their quest of salmonella solutions.

Sweden, for example, has virtually eradicated salmonella contamination and has been doing so for more than 25 years. Kronfågel, Sweden's largest poultry company, guarantees that every package it produces is salmonella-free. This guarantee is declared on each package of raw or cooked chicken products.

"Since 1968, this guarantee has been the law in Sweden," says Joachim Alisch, director of production for Kronfågel. "In Sweden, everyone in the chicken business is salmonella-free. We therefore must look at the whole chain. Over the past year we have done about 51,000 checks for salmonella without any positive findings. Our customers ask for this 100% guarantee."

FIVE PRINCIPLES

Companies like Kronfågel demonstrate that HACCP really works. Kronfågel controls and checks every step of production, from the selection of breeders all the way through slaughter, processing and packaging. The company has five basic principles for salmonella-free production.

■ First, the day-old chick must be salmonella-free. Kronfågel's breeding stock is raised in quarantine. Only when they are proven to be free from all strains of salmonella may eggs be used for hatching the parent generation. This lot, which is used to produce the day-old chicks, is checked weekly. Eggs are coded and handled such that, if salmonella is discovered at a later stage, the parent source can be identified and destroyed.

■ Second, the feed and water must be salmonella-free. Even though feed is always pelleted, it and other raw materials are still checked for salmonella. Additionally, no growth-enhancing antibiotics are used in the animal feed. These were prohibited by Swedish law in 1986.

■ Third, the environment on all types of farms must be salmonella-free. At the hatchery, hygiene standards are meticulous. Maintenance of the coding

of chicks continues into the growing houses, which are thoroughly cleaned and checked between flocks. Finding salmonella during slaughter is extremely rare, but should it happen, the entire lot is removed and destroyed.

"A key component for success was support from the Swedish government during the initial four or five years of the program," notes Jan Holmgren, president of Kronfågel. Governmental authorities in the U.S. should note that in Sweden, the government initially subsidized up to 90% of flock losses in a cooperative effort with processors.

■ The fourth principle involves checking the entire production chain regularly. Controls are coordinated and are systematic. Any salmonella found can quickly be traced to its source.

■ Last, immediate corrective steps are taken in the event that salmonella is discovered, regardless of the serotype. Hygiene and discipline are essential. Any mistakes could be disastrous.

One unique feature at Kronfågel is that every package shows a picture of the actual farmers with their names and addresses. This type of supplier-processor relationship allows a customer to feel that he is buy-



■ Packaged poultry from Kronfågel not only displays a salmonella-free guarantee, but photos, names and addresses of the poultry farmers.

ing a superior quality product. If not satisfied, a customer can not only write to the processor, but also to the farmer.

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than half the time needed by commonly used ELISA test kits. "Our goal is to further refine the sensitivity and reduce the test time to a few hours, versus six to 24 (hours) using current methods," says Craig Wyvill, director of the Agricultural Technology Research Program at Georgia Tech. Commercial availability of the biosensor could be possible in less than two years.

SAFETY BREEDS GROWTH

Poultry production increased almost 7% in 1994, and is expected to increase another 5% this year, according to USDA estimates. Tyson Foods, ConAgra Poultry, Sanderson Farms and others are all involved in construction, renovation or expansion projects. Technology centers, like the one built by Tyson Foods in 1992, are another link that is keeping

the industry strong.

"We're committed to keeping our manufacturing facilities on the leading edge of technology," says Steve Donohue, senior director of technical services for the Tyson Tech Center. The center is divided into three groups covering product development, process development and process engineering.

New products from Tyson's R & D