## THE GROWTH OF RESISTANT STRAINS IN FACTORY FARMS

Unknown to most of us, huge agribusinesses took advantage of early experiments that showed that farm animals regularly fed subclinical doses of antibiotics experienced faster growth. The pharmaceutical companies, too, were excited at this research. Not only could they sell increasing amounts of antibiotics for use as medicine, they could now branch out into the food supply for a fast-growing population. Thousands of tons — in fact, half of all the antibiotics used in the United States (some 20 million pounds [9,072,000 kg] a year) — are fed to farm animals as a routine part of their diet. The antibiotics force growth (something that overcrowding traditionally inhibits) and reduce disease (a common problem when any life-form is overcrowded). As always, bacteria began to learn, and they learned fast. Three of them threaten exceptionally serious human infections: *E. coli* O157:H7 in beef, *Salmonella* in chicken eggs, and *Campylobacter* in chickens. (And there are others, such as *Cyclospora, Cryptosporidium, Listeria,* and *Yersinia.*) According to Nicols Fox, in her exposé of the problem in her book *Spoiled: The Dangerous Truth about a Food Chain Gone Haywire:*

> *The conditions under which [farm animals were] raised presented all the conditions for infection and disease: the animals were closely confined; subjected to stress; often fed contaminated food and water; exposed to vectors (flies, mice, rats) that could carry contaminants from one flock to another; bedded on filth-collecting litter; and given antibiotics (which, ironically, made them more vulnerable to disease) to encourage growth as well as ward off other infections. . . . Every condition that predisposed the spread of disease from animal to human actually worsened. Farming became more intensive, slaughtering became more mechanical and faster, products were processed in even more massive lots, and distribution became wider.*

Dr. Jeffery Fisher, in his book *The Plague Makers,* takes this further:

> *The resistant bacteria that result from this reckless practice do not stay confined to the animals from which they develop. There are no*