

Geography in the News™

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SICK CALIFORNIA CHICKENS

The California poultry industry may be in trouble. A very contagious Newcastle virus has been discovered in several flocks in Los Angeles and nearby counties. Threat of the virus spreading has led Mexico to ban all imports of California chicken.

The U.S. commercial poultry industry is a model being emulated around the world. Although it has become a classic model of mass production of poultry, there are potential problems with disease in this model, as with most of the agricultural monocultures around the world.

Prior to the development of the poultry model, most poultry was raised on general farms, usually with fewer than a hundred chickens. Broilers and fryers were sold individually or in small numbers at town and city markets. Chickens still are produced and distributed in this manner in developing countries.

One version of the poultry model began in North Carolina, when a chicken buyer realized that he could better control his source of chickens. He contracted with a few local farmers, providing the young chicks, feed, medicine and transportation. The farmers provided the chicken houses, electricity, water and labor.

This model provided distinct advantages to the buyer and farmers. All of the chickens on each farm were fed the same feed and matured at the same time. Thus, the buyer could control his broiler supply and its quality and save transportation costs. Farmers could concentrate their labor on a single product.

The results were huge chicken

farms with numerous temperature-controlled buildings housing thousands of birds. The same model is now being used in turkey and swine production. However, herein lies the potential for disease.

When large numbers of the same species occur in unnaturally close proximity, creating a *monoculture*, disease and pests are likely to become problems. In order to reduce the potential for damage, farmers must use medicines and pesticides to keep disease and pests at bay.

Farmers worry that a disease for which there is no preventative or cure might invade their monoculture. Or they worry that a fast-moving disease might spread throughout their monoculture before the appropriate preventative or cure can be applied.

Outbreaks of the Newcastle disease actually are fairly common among birds, being easily spread by the wind, on the feet of workers or by trucks to new localities. It is a fragile virus that can be quickly killed by temperatures above 80 F., but it can survive several weeks under cool conditions. The virus is not contagious to humans or other mammals, but can infect virtually any avian species. An outbreak of Newcastle disease in Australia's poul-

try is currently ongoing and a 2000 outbreak in Mexico was finally contained.

A particularly virulent strain of Newcastle was found in private California poultry flocks and exotic birds in the fall of 2002. The Department of Agriculture immediately stepped in and began destroying all infected flocks, but their action apparently is slow in eradicating the disease. The source of this outbreak is unknown.

California produced 237.7 million broilers and other meat-type chickens in 1997, representing 3.5 percent of U.S. production. Mexico is California's leading importer of chicken and has declared a ban on future imports until it gets assurances of geographic containment and eradication of the Newcastle virus. Meanwhile, the hope is that it won't spread to other U.S. poultry operations.

And that's Geography in the News. February 14, 2003. #663.

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Additional sources: <http://www.lionsgrip.com/chickensnewcastle.html>

Chicken Trouble

