



The Milk Lines



April 2001

MORE FMD

BIOTECH FEEDS

NOTEWORTHY

More Foot & Mouth Disease

California has been free of foot and mouth disease (FMD) since the last outbreak in 1929. Vigilance by the federal and California animal health and food safety programs have been effective in preventing a reoccurrence of the problem. This good result has been in spite of trade with countries known to not be free of FMD. However, the disaster that has hit Britain and confirmed infections in various other countries show what can happen if precautions are not followed. Both USDA and state of California veterinarians are currently in Britain and Holland learning what actions work and don't work in controlling an FMD outbreak.

Some of the things learned so far is that the initial outbreak in Britain followed the feeding a garbage contaminated with FMD to hogs and no FMD symptoms were noticed until weeks later after sheep and cattle were exposed to the virus. The garbage can come from international travel food leftovers and/or smuggled products. This is similar to the 1929 outbreak in California. Containment of an outbreak in the much more mobile society of today would be more difficult. A recent "what if outbreak" was practiced in the Midwest, and the conclusion was that both the USDA and local governments would be overwhelmed and the National Guard would be needed for destroying infected animals and traffic control in and out of the area.

Another difficult question is what if wildlife, like deer, bison and wild pigs, came in contact with the virus.

Would they need to be slaughtered like domestic livestock? Obviously these animals can become infected and/or be carriers to other animals. The virus plays no favorites. The current attempt in Holland to vaccinate livestock has reduced clinical symptoms but has not contained the virus to "vaccination zones." This is partly due to different types of the virus and sub-species to that used in the vaccine. The vaccine is needed every six months, and there is the possibility of virus mutation that would reduce vaccine effectiveness. **Animal eradication is the only known control at present.**

The virus has been detected in semen and embryo transfers, but spread of the virus by these means has not been confirmed to date. For "what if" questions there are possible answers on the Web at www.aphis.usda.gov/vs/ep/fad_training. Biosecurity is easily preached but not easy to practice, but the consequences justify the attempts. Biosecurity includes international airports/docks, imports, animal traffic between countries, and common sense on-farm scrutiny. Bioterrorism may not justify 24-hour armed guards, but the wake-up call in Britain, Holland and other countries does show the USA and Tulare County are vulnerable. Talk with your veterinarian and/or farm advisor about biosecurity.

Briefly, FMD symptoms are blisters and erosions in mouth, drooling, loose skin on tongue, also blisters and erosions on feet, lameness and sloughing of hooves, and blisters/erosions on teats with obvious milking difficulties. The characteristics of FMD are an

incubation period of from a couple of days to a couple of weeks, followed by off feed and reduced milk production with some drooling, all before the blisters appear. Cattle will shed the virus for at least 4 days before clinical signs appear. An infected animal can shed 100,000 virus units in 24 hours and be a carrier for over 3 years.

Pigs are believed to be more easily infected than other animals and are termed as amplifying hosts since they shed more virus units than other livestock. Sheep and goats are termed maintenance hosts since they don't show clinical signs as much as other livestock but carry the virus for about 9 months. Deer and elk are also infected but details on infections and characteristics are not as commonly known. Short-term effects besides destroying animals would be production and reproduction losses. Actually less than 5% of infected animals die. Long-term effects would be the loss of exports to FMD-free countries, disruption of local sales and quarantine restriction measures.

Biotech Feeds

Crop biotechnology has produced some "biotech" or transgenic versions of common feeds, such as canola, corn, cotton and soybeans, that are engineered for protection against insects and have more compatibility to herbicides. Consequently, there is better weed control with less herbicide and less need for pesticides. This in turn allows less mycotoxin infestation due to less injured plant tissue. Cost savings are obvious benefits, as well as reduced environmental effects. There is both USDA and international controls on transgenic plant materials to meet consumer protection concerns. Survey of consumers indicates a general optimism that food safety is being met by regulations and labeling.

Feeding trials have shown normal digestion and no effects on safety of meat, milk or eggs. During the next few years the focus in transgenic plants will be on improving nutritional values by changing the oil and protein composition. Work will continue on antifungal and insect control properties in alfalfa and other dairy destined plants. All of these traits will be of benefit to

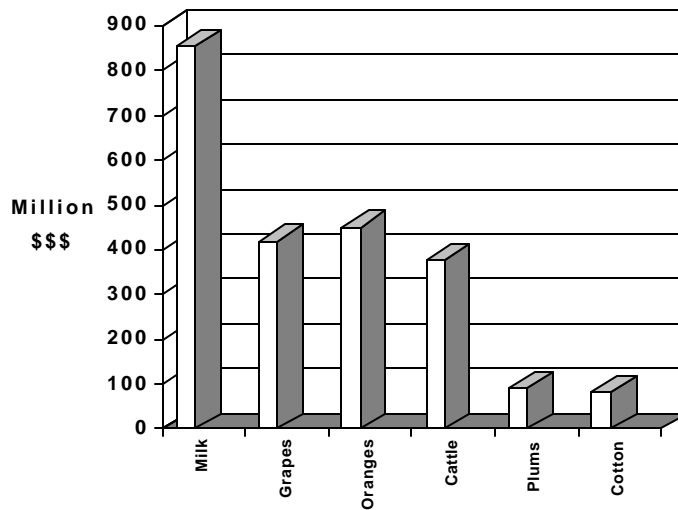
the dairy industry in the future as food safety and environmental protection concerns increase.

Noteworthy

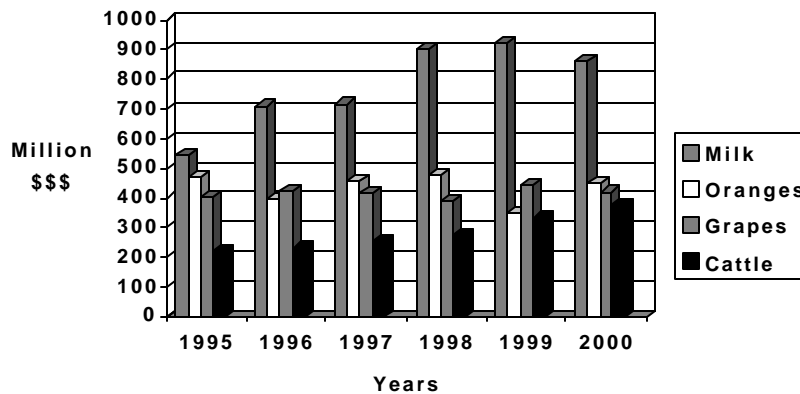
- The USEPA has extended the comment period on CAFO regulations for an additional 75 days until July 30th. These regulations go into effect 12/31/02 and will affect the dairy business. A four-page summary can be seen at www.epa.gov/owm/afos/rule.htm.
- Governor Davis has signed SBX1 5, an energy conservation package that includes \$40 million for high efficiency ag equipment and retrofits to natural gas power, \$15 million for manure to methane projects, and \$10 million for pump testing. Watch for details on these from the California Energy Commission (CEC) and you can follow this on www.energy.ca.gov/efficiency/ or call 800-555-7794.
- For dairies having completed the Environmental Stewardship Short Course, there will be a Pre-evaluation for Certification meeting from 9 to noon on June 8th at Edison AgTAC. Pre-registration is required one week prior or by 6/1/01. For registration call 733-6488 before May 4th or afterward call 685-3303.
- The reason for the phone change is UCCE is moving the office from Visalia to Tulare. We will be located just south of the Edison AgTAC and across the street from the Heritage Complex of the farm show. From May 7th the Dairy Advisor number will be 685-3309, extension 213.
- Ag Commissioner Report dairy production data is in annexed graphs.

Tom Shultz
Dairy Advisor

2000 Tulare County Top Ag \$\$\$



Tulare County Ag Dollars



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