



New World Screwworm, Mexico

Impact Worksheet, February 25, 2003



Summary:

A failure in the sterilization process at the Sterile Flies Production Plant Irradiating Unit #2 resulted in the release of fertile New World screwworm flies (*Cochliomyia hominivorax*) on January 28, 2003 in the State of Chiapas, Mexico. On February 5, field activities to promote the reporting of suspected cases and detection of screwworm lesions were begun. Subsequently, 2 outbreaks of New World screwworm in cattle were confirmed by the Laboratory of Entomology of the Mexico-USA Commission for the Eradication of Screwworm. A variety of control strategies were implemented after the release to identify and contain the spread of the fertile *C. hominivorax*.

Mexican cattle stocks in 2002 were almost 31 million head. Although Mexican cattle stocks were only 2 percent of world cattle stocks, Mexico was the third largest exporter of cattle in 2001 accounting for almost 14 percent of world cattle exports. U.S. imports of Mexican cattle are mostly feeder cattle for fattening in feedlots, and live cattle imports were 816,000 head in 2002 (nearly 100% of Mexican live cattle exports). The U.S. does not import significant numbers of other types of livestock from Mexico.

How extensive is screwworm in Mexico, and what was Mexico’s disease status prior to the outbreak?

As of February 13, 3 cases of New World screwworm had been confirmed resulting from the release of fertile *C. hominivorax* on January 28 in Chiapa de Corzo, State of Chiapas, Mexico. Adult flies have been trapped and 59 positive samples of *C. hominivorax* have been confirmed (as of February 19, 2003). Control measures include the release of 55 million sterile flies in areas at risk and around the plant. Movement restrictions, inspection points and dipping for moved animals are also in place. Sample collection tubes and treatment sachets have been distributed to area governments, livestock associations and veterinary drugstores. Media outlets and meetings with producers have been utilized to raise the awareness of producers.

New World screwworm has been eradicated from the U.S., Mexico and much of Central America, with Mexico being declared free in 1991. In 2001, an outbreak of New World screwworm occurred in the same area as the current outbreak. A previous outbreak in Chiapas in 1996 was linked to the release of fertile screwworm flies from the sterilization plant.

Source: OIE Disease Information Report; Impact Worksheet: New World Screwworm, Mexico November 8, 2001

What is Mexico’s place in the international market for affected animals and animal products?

In 2002, Mexico had almost 31 million cattle stocks (Table 1). Although cattle stocks only accounted for 2.2 percent of world cattle stocks, Mexico was the third largest exporter of cattle in 2001, accounting for almost 14 percent of world cattle exports at over 1.1 million head exported (Table 2). Mexico had the world’s second largest stocks of horses and of mules, at over 6.3 million horses (10.9% of world stocks) and almost 3.3 million mules (24.7% of world stocks) in 2002. Mexican exports of live animals other than cattle account for minor percentages of the world export markets.



Table 1: Animal Stocks, Mexico, 2001 and 2002

Species	2001 Stocks	Stocks	2002 % of World Production
Cattle	30,540,000	30,600,000	2.2
Pigs	14,900,000	18,000,000	1.9
Goats	9,600,000	9,100,000	1.2
Horses	6,250,000	6,255,000	10.9
Sheep	5,950,000	6,250,000	0.5
Mules	3,280,000	3,280,000	24.7
Asses	3,260,000	3,260,000	7.7

Table 2: Exports of live animals, Mexico, 2000 – 2001

Species	2000	2001	
	Number of Head	Number of Head	% of World Exports
Cattle	1,223,898	1,141,662	13.8
Horses	2,768	2,722	0.4
Sheep	1801	988	<0.1
Pigs	10	201	<0.1
Goats	0	113	<0.1
Mules	5	14	0.2
Asses	0	0	<0.1

Source: United Nations FAO

What are the U.S. imports of affected animals from Mexico?

Cattle imported into the U.S. from Mexico are primarily feeder cattle and come mostly from states in northern Mexico. In 2002, 816,000 cattle were imported from Mexico or nearly 100 percent of all live cattle exports from Mexico. This decline over the 2001 imports of 1.1 million cattle is based on increasing costs of production making feeder cattle less profitable. Limited numbers of equine were imported in 2002 and 2001.

All livestock imported into the U.S. from Mexico are required to enter via designated ports. At the port of entry, each animal is individually inspected for signs of disease. During this inspection, wounds that could harbor screwworm are thoroughly examined. Because this standard procedure is sufficient for the detection of screwworm, APHIS has imposed no additional requirements on livestock entering the U.S. from Mexico at this point in time.

Canada imported only limited live horses from Mexico in 2001(\$8,000) and 2002 (\$2,000).

Table 3. Relevant U.S. Imports from Mexico, 2001-2002

Animals	2001		2002	
	Value (million dollars)	quantity (no)	Value (million dollars)	quantity (no)
Cattle	408	1,130,168	300	816,460
Horses, Asses or Mules	1.8	1,753	1.9	1,816
Sheep & Goats	.01	17	0	0

Source: World Trade Atlas; Agricultural Outlook, ERS, June-July 2001; Impact Worksheet: New World Screwworm, Mexico November 8, 2001

What is the level of passenger traffic arriving in the United States from Mexico?

It is estimated that 10.3 million visitors arrived in the U.S. from Mexico in the year 2000. Of these, 1.7 million came by air. While it is possible for humans to be infested with screwworms, and thus be a risk of bringing the organism into the U.S., the risk would be quite low. Animal products these passengers might be carrying would not be of risk.

Source: Department of Commerce, Tourism Industries (Secretaria de Turismo, Mexico)

CEI’s plans for follow up:

At this time CEI has no plans to provide additional information on this subject. If you need more information or if you want to comment on this worksheet, you may reply to this message, or contact Vicki Bridges (970-494-7322) or Jennifer Grannis (970-494-7328).