



By I. A. Schipper¹

TO livestock men the problem of "yellow silage" is not new. Moreover, a yellow discoloration of unpainted woodwork near silos, and death of chickens and livestock in adjacent buildings, have been reported.

Pneumonitis followed by episodes of coughing in both man and animals that have been in the vicinity during ensiling, are the usual first symptoms reported. Yellow silage may serve as a warning of a potential hazard to man and animal that deserves general recognition.

Cause—The fumes which accumulate in corn filled silos under certain conditions are known to be quite toxic. The toxic gas is believed to be nitrogen dioxide. This gas is heavier than air and a yellow to brown in color. It is formed from the fermentation of immature corn or other forages containing nitrates and nitrites.

Another gas formed during the fermentation process is nitrous oxide. Because nitrogen dioxide is heavier than air, it will have a tendency to diffuse down the silo chute and openings at the bottom of the silo.

The fermentation process is usually complete 10 days following filling of the silo; thus there is little danger of the toxic gases being present after this time. Previous to this time, the silo should not be entered unless someone is present to aid in case of the presence of toxic gases. Livestock and poultry should not be permitted near the silo chute enclosures because of possible toxic effects.

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