



Can we use sewage water for forage fields irrigating?

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It has been revealed that some plants could produce materials which show biological estrogen characteristics. These materials are named as phytoestrogen. Most of common legume and grasses have been reported to contain phytoestrogen such as alfalfa, subterranean clover, red clover, white clover and soybean. Feeding phytoestrogen by livestock can cause reproduction disorders such as calving rate reduction, twinning reduction, return to estrus cycle, increased non-return rate, dystocia, and even permanent infertility. The results of researches showed that when alfalfa fields are irrigated with sewage water, the content of levels phytoestrogen increased from 10 ng estrogen equivalents (est. eqv.) to 137 ng est. eqv. Similarly, the phytoestrogenic content of plants grown in greenhouse under controlled conditions and irrigated with sewage water, rose from 34 to 38 est.eqv. It is suggested therefore, that alfalfa irrigated with sewage water may have leaves of phytoestrogen which could reduce production performance and affect livestock fertility. The content of phytoestrogen could be affected by some factors including: plant variety, weather condition, disease resistance, fertilizer and temperature.

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