

## **Water and Land Issues Associated with Animal Agriculture: A U.S. Perspective**

In addition to water quantity, [water quality is a U.S. and global issue](#) for livestock production.

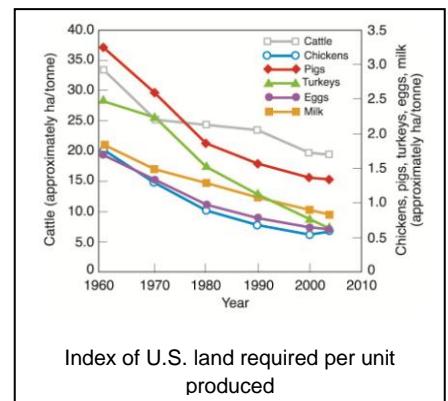
- Livestock health problems or below-normal consumption may result from substandard quality water.
- Ingestion of mineral or organic contaminants can cause poor performance or nonspecific disease conditions.
- U.S. water pollution issues related to livestock and poultry include concerns arising from the high concentrations of livestock and poultry production in some regions and the associated concentration of manure to be land applied.
- U.S. water pollution issues related to livestock production are components of broader water quality issues.

A research challenge in the United States is the [lack of specific information](#) about the effect of land application of manure on water quality.

- The lack of information about sources of nutrients found in streams, rivers, and lakes is a persistent problem in efforts to improve water quality.
- Although the U.S. Geological Survey and other agencies monitor stream water quality, their ability to monitor effects of sources that do not discharge directly into streams is minimal.

The most prominent recent U.S. national policy issue related to livestock, land, and water has been directed toward the [effect of livestock production](#) on the quality of surface water and groundwater.

- An established, productive research and education program evaluates livestock production and manure management practices and provides best management practices for livestock producers.
- Water discharges by large livestock product processing operations are strictly regulated under the Clean Water Act and associated regulations pertaining to manufacturing operations.



Several issues take on a [more regional focus in the United States](#), although they are common globally.

- The use of freshwater to irrigate crops and for animal production competes with direct consumption by people in some regions in the United States.
- The sale or loss of water supply has caused some once agriculturally productive land to be abandoned.
- The potential for the changing climate to decrease rainfall in primary feed-grain growing regions poses additional water resources challenges for agriculture.
- Improved efficiency of animal and crop systems is demonstrated to be a very important approach to conserving resources and minimizing environmental effects, particularly as the demand for food increases.

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