

Assessing Concerns of Neighbors About Quality-of-Life Issues

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An increasing number of large-scale dairy operations are being built across the US. Many of the neighbors of proposed large-scale dairy operations are upset at how dairies will affect their quality of life. We assessed the intensity of these concerns at least 1 year after 2 new dairies began operation. Surveys ($n = 275$) were mailed to collect data. The opinions ($n = 64$) of those living close to large-scale dairy operations were compared with those of individuals in control groups ($n = 38$) living at least 8 km away. There were no significant differences between groups and no complaints had been received, suggesting that quality-of-life issues are unfounded with regard to *properly managed* large-scale dairy operations with 700 or fewer cows. [Following the survey] we recommend that large-scale dairy operations be located in areas where there are few, if any, current neighbors and where future residential development is least likely to occur.

Major animal agriculture sectors in the US are rapidly transitioning into large-scale animal production operations known as confined animal feeding operations (CAFO). CAFO's achieve economies of scale through specialization, their larger size, and close confinement that allows animals to be concentrated into small areas (US Environmental Protection Agency, 2006). Increasing numbers of large-scale dairy operations are being built in the Midwest. Large-scale dairies are generally viewed as undesirable neighbors even before they move in. Media reports (Feehan, 2001; Magers, 2001; Pugh, 2002) from public meetings discussing perceived problems with large-scale dairy operations have revealed four primary concerns: 1) declining property values; 2) a decrease in the quality of drinking water; 3) concerns about odors produced by manure; and 4) fly infestation problems. Emotions often run high at these public meetings, with fear and anger over concerns about quality-of-life issues and decreased property values often being strongly voiced.

No reports were found in the literature on the opinions of close neighbors about quality-of-life issues *after* they had lived near a newly established, large-scale dairy operation for at least 1 year. We conducted this study to capture the opinions of those living near a newly established large-scale dairy operation and to determine whether their quality of life has been affected. A large-scale operation was defined as having more than 600 dairy cows. Knowing the perceptions of people living near large-scale dairy operations related to quality-of-life issues should provide useful information for land-use planners and risk managers. Managers of risk were identified as farm operators, dairy development companies, and government and environmental agencies (Whittington and Warner, 2006). Risk managers must have objective knowledge of the concerns of neighbors about living near a large-scale dairy operation. This information can assist them in addressing concerns and can help [to] determine whether more stringent standards should be applied when future large-scale dairy operations are being proposed. Examination of the differences between those affected and those not affected was intended to help educators and risk managers differentiate real concerns from those perpetuated by myth or the media.

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THE RESULTS ~

□ **Differences Between Upwind and Downwind Neighbors**
Among people living near a large-scale dairy operation, no significant differences in responses.

□ **Differences Between Rural and Urban Groups**
There were no significant differences in responses between the distant rural and urban control groups. Among all respondents not living near a large-scale dairy operation, 13.2% derived at least 40% of their income from agriculture.

□ **Differences Between Near and Far Respondents**
The upwind and downwind respondents were combined into a single group, referred to as those "living near" large-scale dairy operations. Distant rural and urban respondents were combined into a single group, referred to as those "living far" from large-scale dairies. Respondents living near large-scale dairy operations, as well as rural and urban residents living far from a CAFO, expressed concern about quality-of-life issues. Their concerns included problems with loss of real estate value, degradation of drinking water quality, odors, and flies caused by the presence of a CAFO.

□ **Quality-of-Life Concerns Not Based on Reality**
We found that the accuracy of quality-of-life concerns that were expressed about living near a large-scale dairy operation was not based on reality. According to realtors familiar with the study area, real estate transfers within 16.1 km of the 2 large-scale dairy operations had not shown declining values since the dairies became operational. Where real estate values had appreciated, the rate of increase for land near to and distant from a CAFO was approximately the same. No complaints about drinking water quality, odors, or fly infestations had been verified by the relevant governmental risk managers concerning either large-scale dairy operation included in the study. Furthermore, there were no differences in the intensity of beliefs between those living near and those living far from a large-scale dairy. All raised strong objections to the new large-scale dairies and felt that a CAFO affected their quality of life. Based on our analysis of data obtained after approximately 1 year of operation, the four quality-of-life issues were unfounded. In many instances, the reactions of neighbors to a CAFO moving into their communities have been contentious.

This study provided some clarification regarding the intensity of opinions that have been expressed about these four quality-of-life concerns often associated with living near large-scale dairies. We found that whether people lived in close proximity (upwind or downwind) or 8 km away (rural or urban) did not matter; the opinions of residents about quality-of-life issues were similar. The opinions of the individuals we surveyed were not supported by objective data (property values, water quality issues, odors, and fly nuisances). Property values have not declined, water quality has not been affected, odor problems have not been documented, and no fly nuisance complaints have been received. Also, odors usually disperse or dissipate after traveling 8 km, and they do not travel upwind. Current and future climatic and production changes could result in more objective reactions from those living near large-scale dairies. Furthermore, some conditions could have cumulative effects that may not be apparent after only 1 year of operation. The emotions involved in finding sites to locate large-scale dairy operations appear to be similar to those of obtaining sites for airports, nuclear power plants, and sanitary landfills; people do not want one in their backyard.

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