

## Resource Concern: Air Quality Impacts

### Emissions of Greenhouse Gases (GHGs)

Greenhouse gases are gases that trap and hold heat in the atmosphere, thus making the Earth warmer. Emissions from livestock and crop production can increase atmospheric concentrations of greenhouse gases.

### Emissions of Particulate Matter (PM) and PM Precursors

Direct emissions of particulate matter – dust and smoke – as well as the formation of particulate matter in the atmosphere from other agricultural emissions – ammonia, nitrogen oxide (NOx), and volatile organic compounds (VOCs) – cause multiple environmental impacts such as:

- The unintended movement of particulate matter – typically dust or smoke – results in safety or nuisance visibility restriction.
- The unintended movement of particulate matter and/or chemical droplets results in unwanted deposits on surfaces.
- Increased atmospheric concentrations of particulate matter can impact human and animal health and degrade regional visibility.

### Objectionable Odors

Agricultural odors are mainly a community or individual perception issue; although some odorous compounds can cause health problems when encountered in high concentrations. Greater emphasis on addressing odors is likely to occur in areas that have negative community and individual perceptions of odors, especially in areas with a strong rural/urban interface. The three primary sources of odor are manure storage facilities, animal housing, and land application of manure. Other sources can include burning, silage storage, and fertilizer and pesticide applications.

<https://www.sdresourceconcerns.org/resource-concern-air-quality-impacts/>

