

# Agricultural Air Quality in Alberta

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Agricultural Air Quality Task Force Meeting

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# Air Quality Systems in Alberta: Overview

## Environment Canada

- Canada-wide Air Quality Management System (AQMS)
  - Alberta is key player

## Alberta Environment and Sustainable Resources Development

- Alberta Renewable Clean Air Strategy
- *Environmental Protection and Enhancement Act (EPEA)*
  - Ambient Air Quality Objectives
- *Alberta Land Use Stewardship Act (ALSA)*
  - Regional Air Quality Management Frameworks

# Air Quality Systems in Alberta: Overview

## Clean Air Strategic Alliance

- Managing Air Emissions from Confined Feeding Operations (CFOs) in Alberta
- Odour Management Framework

## Alberta Agriculture and Rural Development (ARD)

- Environmental Stewardship Division
  - Odour and Air Quality Strategy
- Agricultural Operation Practices Act (AOPA)
  - Addresses CFO odour and dust

# Odour and Air Quality Strategy

## Vision

ARD guides and supports the agricultural industry and stakeholders in managing odour and air quality emissions; while maintaining healthy ecosystems and the agriculture industry in a sustainable manner.

## Strategy Pillars

- Extension (and public outreach)
- Research
- Policy



## Extension

### On-Line Calculators

- Ammonia Emissions Estimator
- Ammonia Losses from Liquid Manure Application

### Publications

- Odour Management Plan
- Ammonia Volatilization from Manure Application
- Ammonia Emissions from CFOs - Control and Mitigation
- Shelterbelts for Livestock Farms in Alberta

# Shelterbelts for Livestock Farms in Alberta Overview



## Extension

### Conferences, Seminars and Workshops

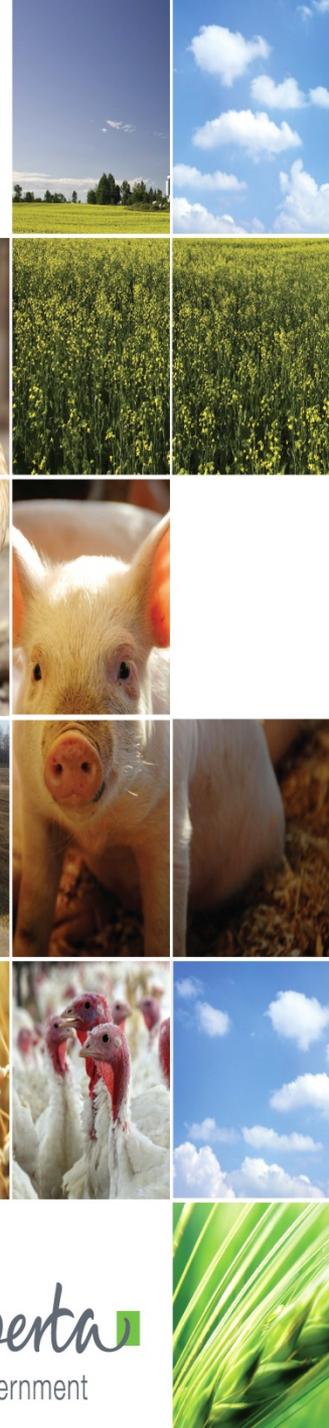
- Presentation: Odour Measurement
  - Airshed Zone Conference, 2005
- Panel Discussion: Approaches to Odour Measurement and Management
  - CASA Science Symposium on Nitrogen, 2006
- Workshop: Defining Odour as a Single Parameter
  - ARD, 2008
- Workshop: Agricultural Ammonia Emissions and Policy Implications
  - ARD, 2013

# AGRICULTURAL AMMONIA EMISSIONS AND POLICY IMPLICATIONS

WHERE ARE WE TODAY AND  
WHAT LIES BEYOND  
THE HORIZON?

March 19/2013

Lethbridge, Alberta, Canada



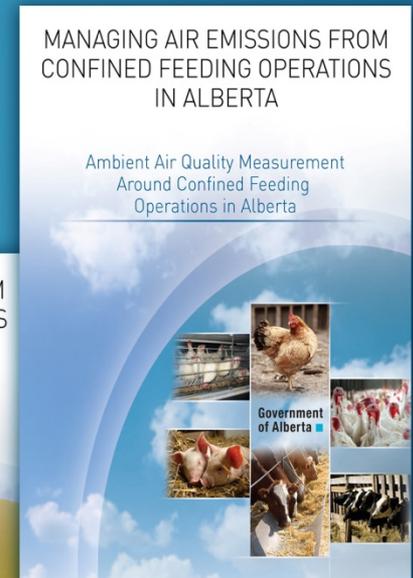
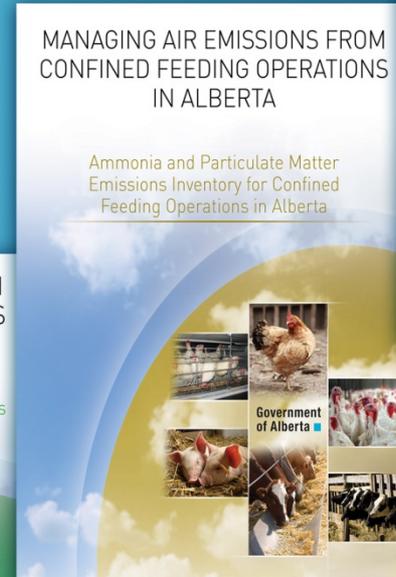
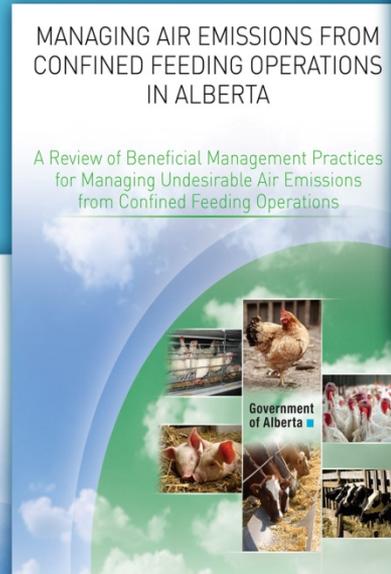
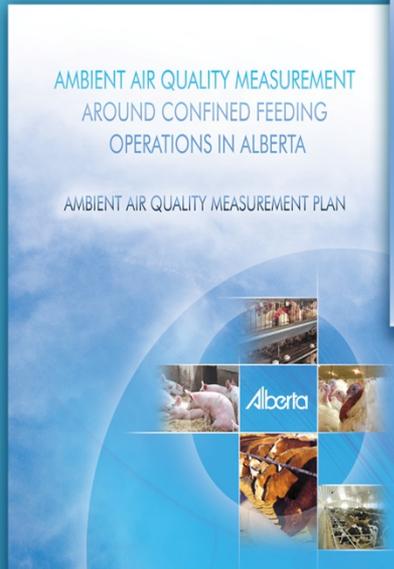
## Research

- Ammonia and Particulate Matter Emissions Inventory for CFOs in Alberta
- Ambient Air Quality Measurement around CFOs
- A Review of Beneficial Management Practices (BMPs) for Managing Undesirable Air Emissions from CFOs
- Odour Screening Tool Development
  - Simple Calculation of Atmospheric Impact Limits (SCAIL)
  - SCAIL Agriculture, SNIFFER, U.K.
- Effects of Biochar on Ammonia and GHG Emissions from Beef Cattle Manure

## Policy

- *Agricultural Operation Practices Act (AOPA)*
  - Setback distances
  - Manure incorporation
- Managing Odour in Problem Areas
- Jurisdictional Review of Odour and Ammonia Management Frameworks and Policies
- Social License

# Questions?



Thank You!