INFOSHEET #12

NUISANCES AND NORMAL FARM PRACTICES

How to address concerns identified in your Environmental Farm Plan Worksheet #12

environmental farm plan
sustainably farmed

Based on Environmental Farm Plan Workbook, 4th ed. 2013

This infosheet outlines options to address concerns identified in your Environmental Farm Plan (EFP) as they relate to on-farm nuisances and normal farm practices.

All options are classed as **Actions** or **Compensating Factors**.

- **Actions** address the identified concern, and will change the EFP rating to (3) or Best (4).
- **Compensating Factors** are alternatives that will adequately address the concern, but will not change the rating in the EFP worksheet.

In most cases, you'll need more information before choosing and implementing options. Sources for more information are noted at the end of this infosheet.

For help with technical terms, please see the full glossary in your EFP Workbook.

Growing Forward 2
Ontario Farm Environmental Coalition
Ontario
Canada

ODOURS

12–1. Minimum Distance Separation II (MDS II) setback of existing livestock housing from nearby land use

BACKGROUND

The principle behind the Minimum Distance Separation II formula is to separate incompatible land uses and avoid future nuisance complaints related to odour.

At the time of construction (building permit application), MDS II is used to determine the required setback distance for new livestock housing from surrounding land uses such as neighbouring dwellings, lower-density human occupancy such as industrial areas, and higher-density human occupancy such as settlement areas, schools, etc. The regulations also calculate the required distance to the nearest road allowance and the nearest lot line.

However, not all livestock housing in Ontario meets the required MDS II setback distances. Older existing barns may have been constructed prior to MDS II regulations, or the operation may have changed over time to different livestock type, manure handling system, etc.

WHAT CAN YOU DO?

OPTION 1 – ACTION

Existing livestock housing not meeting MDS II will be moved, eliminated, or replaced to meet MDS II distances.

OPTION 2 – COMPENSATING FACTOR

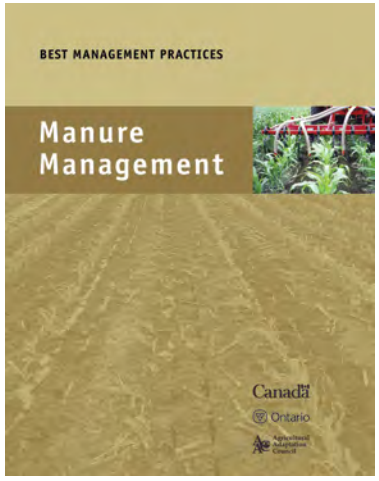
Although existing facilities might not meet MDS II setbacks from neighbouring houses or other land use:

Evaluate current buildings, and plan to locate any new and expanded facilities to meet the required setback distance.

Establish visual screening such as tree planting between barn and neighbouring land use – the old adage "out of sight, out of mind" holds true.

Avoid placing ventilation exhaust fans on the side of building closest to neighbours.

Minimum Distance Separation II setbacks are designed to avoid conflict between livestock production and other incompatible land uses and activities.



This BMP publication has in-depth information and options for siting manure storages, managing odours, treating, storing and handling manure, managing runoff from yards and stored feeds, as well as application planning and technology. The chapter on siting manure storage facilities begins on page 30.

See also these OMAFRA resources:

- *Guide to Agricultural Land Use*, Publication 824
- *Minimum Distance Separation (MDS) Formulae*, Publication 707

12–2. Minimum Distance Separation II setback of existing manure storages from nearby land use

BACKGROUND

Manure and other organic material storage odours are the single largest source of ongoing odours from a farm. The type of material stored, the storage type, and the size of exposed surface area all contribute to the degree of offensive odours generated.

The number of neighbours and their proximity to the storage site, as well as the types of neighbouring land use, are all factors that influence the potential for odour complaints. In most cases, the greater the distance from the manure storage to neighbours, the less likely that conflicts will develop.

MDS II establishes the required distance that new manure storages must be from neighbouring dwellings, low-density human occupancy uses such as industrial areas, and high-density human occupation such as schools, churches, or settlement areas. The regulations also establish the required distance from the storage to the nearest road allowance and the nearest lot line.

WHAT CAN YOU DO?

OPTION 1 – ACTION

Move or replace livestock manure storage to meet (or exceed) MDS II distance.

OPTION 2 – COMPENSATING FACTOR

Place a cover on all existing manure and organic material storages that do not meet MDS II distances:

- choose a permanent roof structure or temporary tarp – a cover will reduce regular odours that are carried by the wind.

OPTION 3 – COMPENSATING FACTOR

Install a board fence around the storage to reduce air movement.

OPTION 4 – COMPENSATING FACTOR

For under-barn storages, relocate any manure pit fan exhaust away from neighbours if possible.

Manure and other organic material storages are the single largest source of ongoing odours on a farm. Storage covers, solid fences, windbreaks and other measures can help reduce odour transmission to neighbouring properties.

OPTION 5 – COMPENSATING FACTOR

Any existing dairy liquid manure storage forms a crust across the entire surface, minimizing the odours generated:

Obtain a crust for liquid manure storages for other animal types by placing a straw mulch on the surface:

- maintain crust and minimize agitation by changing to bottom entry of manure into the storage.

12–3. Temporary field storage of agricultural source materials

BACKGROUND

Under the *Nutrient Management Act*, temporary field storages are allowed for short-term stockpiling (less than six months) of solid Agricultural Source Materials (ASM) such as solid manure, compost and horticultural culls.

These temporary storages are used for various reasons. For example, field conditions may not be suitable for spreading (too wet, snow cover, etc.); standing crops in the field do not allow for immediate spreading; material is being imported by truck from generating site (longer distance) and has to be transferred to spreading equipment in field, etc.

The saying "people smell with their eyes" is particularly appropriate regarding temporary field storage of ASM. For this reason, the field storage should not be visible from neighbouring homes if possible.

WHAT CAN YOU DO?

OPTION 1 – ACTION

If field conditions do not allow the materials to be spread:

Relocate the temporary field storage to meet required setback distances:

- 125 m (410 ft) from a neighbour's home
- 250 m (820 ft) from a residential area
- out of line of sight of neighbouring homes.

OPTION 2 – ACTION

Remove and spread the temporary field storage pile as soon as weather and field conditions permit.

Temporary field storage of agricultural source materials is not a management-free option. Consideration must be given to distances, site conditions and visibility.

12–4. Application method for liquid agricultural source materials such as manure

BACKGROUND	WHAT CAN YOU DO?
Liquid manure and other liquid organic materials, when land-applied, can give off strong odours. Several strategies can help prevent nuisance odour complaints. Minimize the number of spreading events per year. The less frequently that liquid manure and other liquid organic materials are spread, the fewer times that neighbours will experience odours. Reduce the duration of the odour event that neighbours experience. Spreading should be done in as short a time as is reasonably possible.	**OPTION 1 – ACTION** **Inject all liquid agricultural source materials below soil surface:** • retrofit existing equipment, purchase new equipment, or make use of custom applicator. **OPTION 2 – ACTION** **Surface-apply liquid materials as low to the ground as possible, using splash plates on tanker or dragline applicator:** • incorporate all surface-applied liquid agricultural source materials within 24 hours if weather permits.

Injection of liquid manure will help to reduce odours and the loss of nutrients such as nitrogen and phosphorus.

12–5. Application method for solid agricultural source materials such as manure

BACKGROUND	WHAT CAN YOU DO?
Several strategies can be used to minimize odours from applied solid ASM. Incorporating materials as soon as possible greatly reduces the odours generated. Minimizing the number of times solid materials are spread minimizes the number of times neighbours experience related odours. Completing spreading in as short a time as is reasonably possible also helps.	**OPTION 1 – ACTION** **Incorporate solid manure and other solid organic materials as soon as possible after spreading (within 24 hours), weather permitting.** **OPTION 2 – ACTION** ***For materials applied within 125 m (410 ft) of neighbour's dwelling:*** **Incorporate within 24 hours if weather permits.** **Complete spreading in as short a time as possible.** **OPTION 3 – COMPENSATING FACTOR** ***If solid manure and other materials are not incorporated:*** **Properly compost manure and other organic materials to land application.** **Apply at appropriate rates.**

When application near neighbours is necessary, incorporating in a timely manner will reduce conflicts and complaints. Incorporation also helps reduce nutrient loss.

See the chapter on application, pages 85–134.

See also OMAFRA factsheet:

Incorporation of Liquid and Solid Prescribed Materials, Order no. 09-071

12–6. Number of application periods per year of agricultural source materials such as manure

BACKGROUND	WHAT CAN YOU DO?
The fewest number of application periods per year should be the goal, especially for farms located in populated areas.	**OPTION 1 – ACTION** **Aim to limit the number of application periods per year:** • do not exceed two application periods per year.

Ideally, only one time period would be required for the application of agricultural source material.

12–7. Timing and weather during applications of agricultural source materials

BACKGROUND	WHAT CAN YOU DO?
The weather, time of day, and day of the week can affect the number of odour-generated problems and complaints. In more densely populated areas, informing neighbours in advance that you are planning to spread agricultural source materials can avoid a lot of nuisance complaints. If there is a planned social event (e.g. wedding, family reunion), postponing the spreading for a couple of days until after the event may avoid the odour complaint and preserve good neighbour relations.	**OPTION 1 – ACTION** **Check weather forecast for spreading day(s) and those directly afterwards:** • don't spread agricultural source materials on hot, humid days with little or no breeze. **Avoid spreading on weekends, holidays, or the days leading up to them:** • be aware of the impacts you may have on neighbours – use common sense.

Avoid spreading on hot, humid days, and around weekends and holidays.

NUMBER OF POTENTIAL FIXED OR NON-FIXED SOURCE NUISANCES WITHIN 250 M OF A NEIGHBOUR'S DWELLING

12–8. Odour sources

BACKGROUND	WHAT CAN YOU DO?
Although odours result from normal farm practices, the risk of receiving complaints from neighbours is reduced as the number of point source odours decreases. Minimize the number of point source odours on your farm and manage the remaining odours to reduce the impact on your neighbours. Review the list of odour sources and note the ones you may need to be concerned about.	**OPTION 1 – ACTION** **Reduce or relocate the number of point source odours within 250 m (820 ft) of neighbour's dwelling:** • plan to find ways to minimize those that cannot be eliminated or relocated farther away.

See also these OMAFRA resources:

- *The Farming and Food Production Protection Act and Nuisance Complaints,* Order no. 05-013
- *Odour Control on Livestock and Poultry Farms,* Order no. 03-011
- *Farmer and Neighbour Relations – Preventing and Resolving Local Conflict,* Order no. 05-001

Proper compost management and separation distance from a neighbour's dwelling will help to minimize odour complaints

12–9. Noise (or vibration) point sources

BACKGROUND	WHAT CAN YOU DO?
Although noise and vibration can result from normal farm practices, the risk of receiving complaints from neighbours is lower if the number of point sources for noise and vibration decreases. Minimize the number of noise and vibration point sources on your farm, and manage the remaining noise and vibration sources to reduce the impact on your neighbours. Review the list of noise sources and note the ones you may need to be concerned about.	**OPTION 1 – ACTION** **Reduce the number of noise and vibration point sources located within 250 m (820 ft) of neighbour's dwelling.** **Implement sound dampening methods to minimize point source noise or vibration that cannot be eliminated:** • plant a tree windbreak, or construct a board fence or earthen berm between noise source and neighbour • install noise/vibration dampening devices on stationary equipment like irrigation pumps, AD generator motors, etc.

Noise or vibration from normal farm practices is to be expected. Reducing these where practical will help reduce conflict with nearby neighbours.

12–10. Dust sources

BACKGROUND	WHAT CAN YOU DO?
Although dust can result from normal farm practices, the risk of receiving complaints from neighbours is lower if the number of point sources can be reduced. Minimize the number of dust point sources on the farm, and manage the remaining dust sources to reduce the impact on your neighbours.	**OPTION 1 – ACTION** **Reduce the number of dust point sources located within 250 m (820 ft) of neighbour's dwelling.** **Minimize dust from point sources that cannot be eliminated:** • apply dust suppression products to gravel farm laneways and other high traffic areas • plant windbreaks/dispersion fences between barn exhaust fans and neighbouring houses.

Start by making a list of on-farm dust sources, and note those of concern.

12–11. Light point sources (between 30 minutes after sunset and 30 minutes before sunrise)

BACKGROUND	WHAT CAN YOU DO?
Although light problems can result from normal farm practices, the risk of receiving complaints from your neighbours is lower if the number of light point sources decreases. Minimize the number of light point sources on the farm, and manage the remaining ones to reduce the impact on your neighbours. Review the list of light sources and note the ones you may need to be concerned about.	**OPTION 1 – ACTION** **Reduce the number of night-time light point sources located within 250 m (820 ft) of neighbour's dwelling.** **Find ways to minimize offsite impacts of those that cannot be eliminated, e.g. berms, tree plantings, blackout curtains on greenhouses.**

The use of blackout curtains on this greenhouse helps to reduce the offsite impact of grow lights.

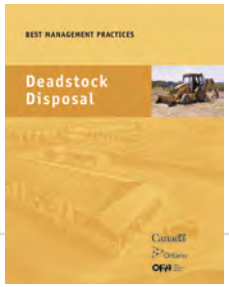
12–12. Fly sources

BACKGROUND

Although flies can result from normal farm practices, the risk of receiving complaints from neighbours is lower if the number of fly point sources decreases.

Review the list of fly sources and note the ones you may need to be concerned about.

For much more information about deadstock management options, including composting, see *Deadstock Disposal,* a BMP publication.



WHAT CAN YOU DO?

OPTION 1 – ACTION

Reduce the number of fly point sources located within 250 m (820 ft) of neighbour's dwelling.

Find ways to minimize those that cannot be eliminated:

- verify/calibrate ventilation equipment in livestock and poultry barns to ensure sufficient air exchange – drier barns are less desirable for flies to lay eggs
- start an Integrated Pest Management (IPM) strategy for fly control, e.g. parasitic wasps, Hister beetles, bait stations, etc.

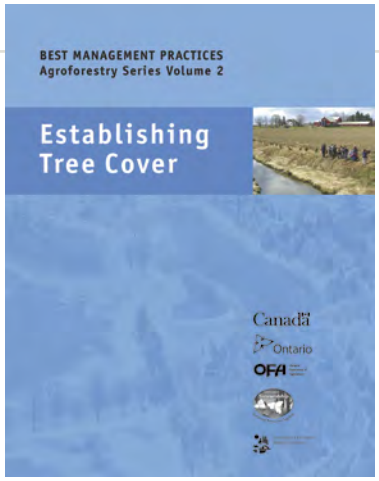
Spread vegetable culls can be a fly source. Incorporation will help to minimize this nuisance.

12–13. Smoke point sources

BACKGROUND

Although smoke can result from normal farm practices, the risk of receiving complaints from neighbours is lower if the number of smoke point sources decreases.

Review the list of smoke sources and note the ones you may need to be concerned about.



This BMP publication includes a chapter on designing, planting and maintaining windbreaks, shelterbelts, and treed fencerows. Properly sited, these plantings provide a visually appealing screen, and reduce dust, noise, and odour levels.

WHAT CAN YOU DO?

OPTION 1 – ACTION

Reduce the number of smoke point sources located within 250 m (820 ft) of neighbour's dwelling.

Find ways to minimize those that cannot be eliminated:

- plan to reduce the impact from all smoke sources that are within 250 m (820 ft) of neighbouring homes.

Most municipalities require permits for on-farm burning.

See also these OMAFRA resources:

- *The Farming and Food Production Protection Act and Nuisance Complaints,* Order no. 05-013
- *Farmer and Neighbour Relations – Preventing and Resolving Local Conflict,* Order no. 05-001

Best Management Practices publications present in-depth explanations, tips and advice for Ontario farmers.

FOR MORE INFORMATION

Ontario Ministry of Agriculture, Food and Rural Affairs

Many sources of supplementary information are available. Below are some suggestions to get you started. Most can be found online at **www.ontario.ca/omafra** or ordered through ServiceOntario.

Farmer and Neighbour Relations – Preventing and Resolving Local Conflict, Order no. 05-001

Guide to Agricultural Land Use, Publication 824

Incorporation of Liquid and Solid Prescribed Materials, Order no. 09-071

Minimum Distance Separation (MDS) Formulae, Publication 707

Odour Control on Livestock and Poultry Farms, Order no. 03-111

The Farming and Food Production Protection Act (FFPPA) and Nuisance Complaints, Order no. 05-013

What Rural Neighbours Can Expect from New Intensive Livestock Operations, Order no. 06-027

BEST MANAGEMENT PRACTICES

BMP publications are excellent sources to better understand on-farm environmental issues and discover a range of proven, practical options to address them. BMP materials are available at no charge to Ontario farmers. Below are a few sample titles. To order, see ServiceOntario information.

Buffer Strips
Controlling Soil Erosion on the Farm
Cropland Drainage
Deadstock Disposal
Establishing Tree Cover
Field Crop Production
Integrated Pest Management
Manure Management
No-Till: Making it Work
Soil Management
Streamside Grazing
Water Wells
Woodlot Management

Inquiries to the Ontario Ministry of Agriculture, Food and Rural Affairs

Agricultural Information Contact Centre
Ph: 1-877-424-1300
Email: ag.info.omafra@ontario.ca
Web: **www.ontario.ca/omafra**

Order through ServiceOntario

Online at ServiceOntario Publications – **www.ontario.ca/publications**

By phone through the ServiceOntario Contact Centre
Monday–Friday, 8:30 am–5:00 pm
416-326-5300
416-325-3408 TTY
1-800-668-9938 Toll-free across Ontario
1-800-268-7095 TTY Toll-free across Ontario

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