

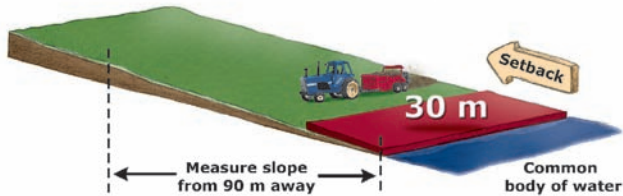
# Minimum Setbacks for Manure Application

## Based on the Agricultural Operation Practices Act (AOPA)

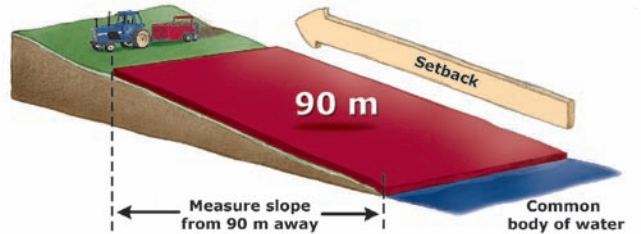
If the land slopes towards a common body of water, a person who applies manure on forage, direct-seeded crops, or frozen or snow-covered\* land must meet the setbacks for manure application based on the average slope of the terrain.

Setbacks for manure application on land with various slopes (on forage, direct-seeded crops, frozen or snow-covered land)

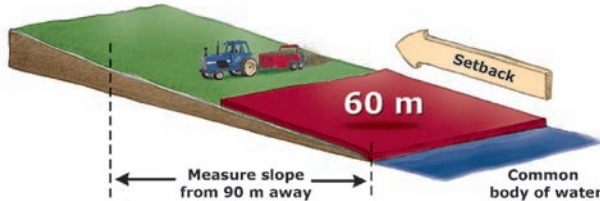
4% slope or less



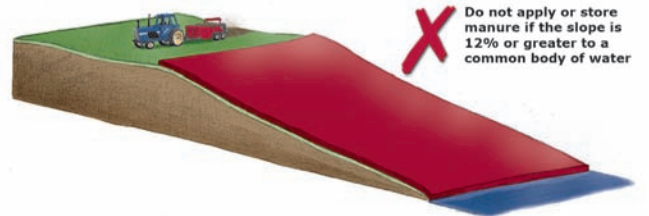
6 - 12% slope



4 - 6% slope



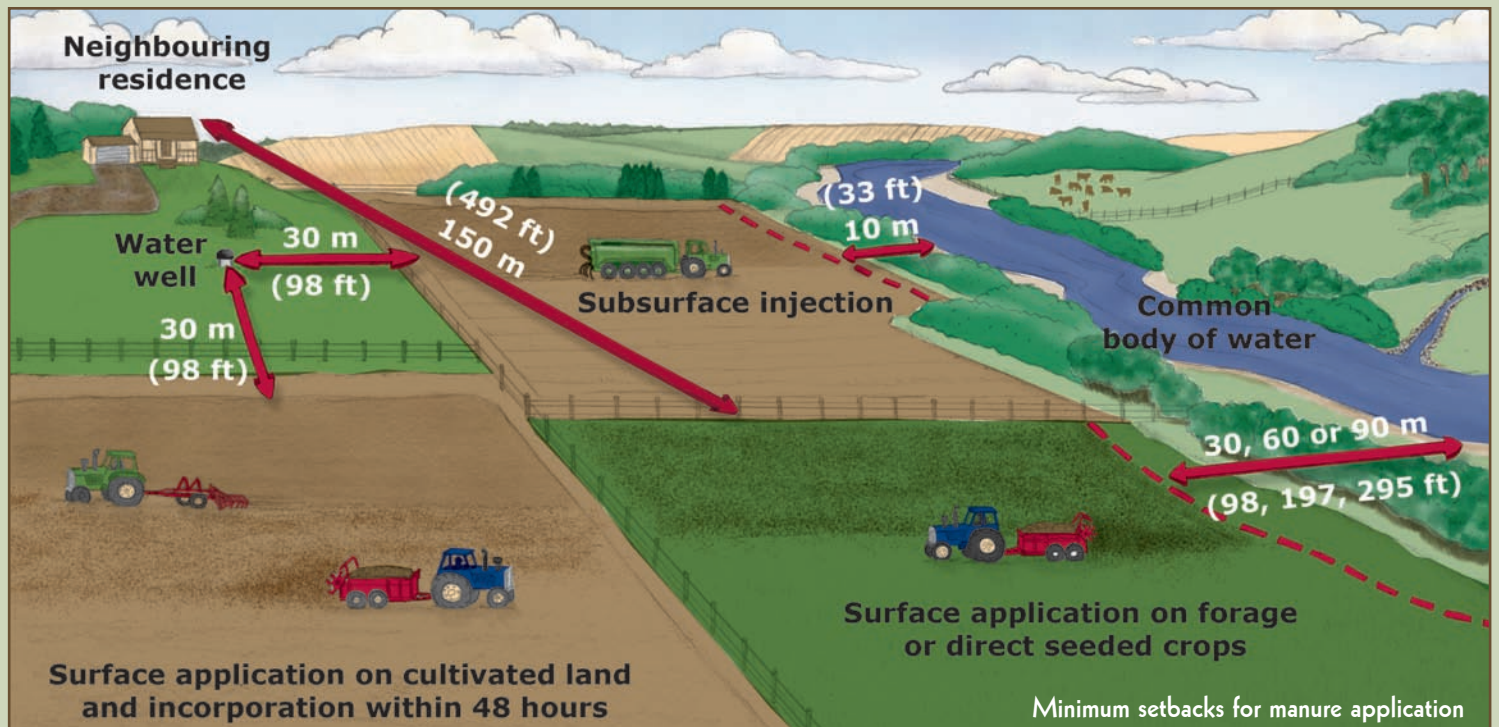
Manure can only be applied or stored once the slope to a common body of water is less than 12%



\*Manure application on frozen or snow-covered ground is allowed only if the CFO has less than 9 months storage or the application is permitted by a NRCB Inspector

Manure or compost may be applied without incorporation on forage or directly seeded crops and frozen or snow-covered land if it is applied at least 150 m from any residence or other building occupied by people.

Short term solid manure storage sites must be located at least 150 m from a residence or occupied building that is not owned by the operator. "Short term" means an accumulated total of not more than 7 months over a period of 3 years.



Minimum setbacks for manure application

# Manure Management Regulations

## Manure Application Limits

Under AOPA, anyone who applies manure or compost (including composting material) must incorporate within 48 hours of application, except those who are applying manure to forage, direct-seeded crops, frozen or snow-covered ground. Manure or compost may be applied without incorporation in these situations, provided that application is at least 150 m from a residence or regularly occupied building.

Producers without NRCB permission may not apply manure or compost to a piece of land if:

- \* Soil salinity (0-15 cm) exceeds 4 deciSeimens/m (dS/m)
- \* Application will increase soil salinity by more than 1 dS/m
- \* Application will result in soil nitrate-nitrogen (0-60 cm) levels greater than those specified below:

### Nitrate-Nitrogen Limits in Soil

Soil	Sandy (>45% sand & water table <4)	Sandy (>45% sand & water table <4)	Medium and Fine Textured Soils
Brown	80 kg/ha (75 lbs/ac)	110 kg/ha (100 lbs/ac)	140 kg/ha (125 lbs/ac)
Dark Brown	110 kg/ha (100 lbs/ac)	140 kg/ha (125 lbs/ac)	170 kg/ha (150 lbs/ac)
Black	140 kg/ha (125 lbs/ac)	170 kg/ha (150 lbs/ac)	225 kg/ha (200 lbs/ac)
Grey wooded	110 kg/ha (100 lbs/ac)	140 kg/ha (125 lbs/ac)	170 kg/ha (150 lbs/ac)
Irrigated	180 kg/ha (160 lbs/ac)	225 kg/ha (200 lbs/ac)	270 kg/ha (240 lbs/ac)

## Soil Testing and Analysis

Anyone applying over **500 tonnes** per year of manure or compost must have a soil test that is no older than 3 years before manure can be applied to the land. Producers applying less than **500 tonnes** annually are not required to soil test prior to land application of manure or compost.

### Estimated Population for Different Livestock to Produce 500 tonnes of Manure

Category/Type	Yearly Solid Manure Production (tonnes/year)	Assumed Length of Confinement (years)	Estimated Number of Animals to Produce 500 t of Manure
Beef			
Beef Feeders (<900 lb)	1.4	1	357
Feeders Calves (<550 lb)	0.54	1	926
Dairy			
Cows, Loose Housing	24.2	1	21
Swine			
Farrow-to-finish (per sow basis)	14.3	1	35
Grower/Roaster	0.8	1	625
Poultry (per 100 birds)			
Layers, Belt Cage	1.6	1	31,250
Broilers	1.0	1	50,000

## Record Keeping Requirements

AOPA requires that records relating to manure application be kept for a minimum of 5 years.

**Anyone applying at least 500 tonnes** of manure or compost to land under their control must record:

- ✓ *The name and address of the person from whom manure or compost was received, the date it was received and the volume or weight received*
- ✓ *The legal description of the land and the total land area to which the manure or compost is applied*
- ✓ *The date of application and incorporation along with the methods used for each field*
- ✓ *The application rates of manure, compost and fertilizer by field and year*
- ✓ *The weight or volume applied*
- ✓ *Soil test results by field for the nutrients specified in Schedule 3 of the Standards and Administration Regulation*

**All confined feeding operations (CFOs)** must record:

- ✓ *The name and address of the person to/from whom control of at least 500 tonnes of manure or compost was transferred, the date control was transferred and the volume or weight transferred*
- ✓ *The weight or volume of manure or compost produced by the operation*

**Anyone who transfers control or receives at least 500 tonnes** of manure or compost must record:

- ✓ *The name and address of the person to/from whom control of at least 500 tonnes of manure or compost was transferred, the date control was transferred and the volume or weight transferred*

For more information regarding the legislation contact:

### NRCB Regional Offices:

Morinville: (780) 932-1212  
 Fairview: (780) 835-7111  
 Red Deer: (403) 340-5241  
 Lethbridge: (403) 381-5166

### Alberta Agriculture and Rural Development

**CFO Extension Specialists:**  
 Morinville: (780) 939-1218  
 Red Deer: (403) 755-1475  
 Lethbridge: (403) 381-5885

NRCB 24hours response line:  
 1-866-383-6722

Ag-Info Centre: 310-FARM  
 (Dial 310-0000 to be connected toll free)