

E. coli – how
to reduce
the risk from
your farm



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E. coli – how to reduce the risk from your farm

What is *E. coli*?

E. coli bacteria live in the guts of animals and humans. Most types of *E. coli* are harmless, but some can cause serious illness.

This leaflet gives you advice on how to reduce the risk of people becoming infected with harmful *E. coli* from your farm.

Illness caused by *E. coli* infection

E. coli infection can cause:

- Stomach pains
- Diarrhoea, which can be bloody
- Kidney failure, especially in young children

Babies and young children are most at risk of becoming ill and having serious illness. This is because their immune systems are still developing. Older people and people being treated for serious illnesses, like cancer, also have a greater risk of serious illness than the general healthy adult population.

***E. coli* infection is easily spread between young children**

If your child has diarrhoea or vomiting:



Don't:

- ✗ Send them to their crèche or childminder for 48 hours after their last bout of diarrhoea or vomiting



Do:

- ✓ Try to avoid them being in contact with other children for 48 hours after their last bout of diarrhoea or vomiting
- ✓ Seek medical advice, especially if diarrhoea is bloody



How do you get infected?

As *E. coli* is passed in faeces (dung), you can become infected after:

- Contact with animals (farm animals or pets)
- Contact with the farm environment
- Contact with an infected person
- Drinking contaminated water
- Drinking unpasteurised milk
- Eating contaminated food

How to reduce the risk of *E. coli* infection

You can't eliminate *E. coli* from your farm, but you can reduce the risk of people becoming ill by following these steps:

1. Practise good hygiene
2. Don't drink unpasteurised milk
3. Protect your visitors
4. Keep animals clean
5. Use organic fertilisers safely
6. Use a safe water supply

1. Practise good hygiene

Work clothes

Don't wear your farm work clothes or footwear in the home, because they can spread *E. coli*.



Wash your hands

Always wash your hands:

- After contact with animals
- After working or playing on the farm
- After using the toilet
- Before preparing food
- Before eating and drinking
- Before milking



Good hygiene when milking

It's important to practise good hygiene during milking. To reduce the risk of the milk becoming contaminated:

- Wash your hands before you start milking
- Wash cows' teats before milking (if dirty)
- Dry teats with paper towels – use a fresh paper towel for each cow, so you don't spread infection
- Keep milking equipment and the bulk tank clean and sterilised
- Keep cows' tails clipped

During milking

During milking, make sure to keep the following clean:

- Your hands
- Milking equipment
- Cow standings



2. Don't drink unpasteurised milk

Unpasteurised milk can contain harmful bacteria, even if it looks and tastes fine. Pasteurising kills harmful bacteria. Therefore, if you drink the milk you produce on your farm, pasteurise it first. You should:

- Keep the home pasteuriser well maintained
- Cool pasteurised milk quickly
- Store pasteurised milk in the fridge

3. Protect your visitors

Visitors may be more likely to become ill from harmful *E. coli* than the farm family. There have been outbreaks of *E. coli* infection among people (especially children) who have visited farms.





Do:

- ✓ Ask visitors to wash their hands after being in contact with animals or being in the farm yard, and before eating



Don't:

- ✗ Give visitors unpasteurised milk to drink
- ✗ Use unpasteurised milk in foods that aren't cooked

Advice for open farms

The Health Protection Surveillance Centre (HPSC) has produced specific advice for open farms and for the recreational use of farmland. You can get a copy of this advice from www.hpsc.ie or by phoning (01) 876 5300.



4. Keep animals clean

Make sure the animals you milk or send for slaughter are clean and dry. The cleaner and drier an animal is to start with, the less likely it is that milk or meat will become contaminated.

Abattoirs can reject dirty animals under the **Clean Livestock Policy**. This is because *E. coli* on an animal's hide or fleece can easily be transferred onto the meat after slaughter. Wet hides increase the risk of contamination.

Animals can be kept clean by paying attention to their:

- Feed
- Housing
- Transport



Animal feed

Feed that produces wet dung can result in dirtier animals. This feed includes:

- Wet silage
- Roots
- Molasses
- Brewers' grain

For two weeks before slaughter, give cattle dry forage such as:

- Hay
- Straw
- Dry big bale silage

It is also important to:

- Wilt silage to increase its dry-matter content
- Make changes to an animal's feed gradually – sudden changes can lead to scouring – which increases the amount of *E. coli* passed in dung
- Always allow animals to have free access to clean water
- Avoid fasting animals for more than 12 hours (including transport) before slaughter because this causes stress and stressed animals produce more dung

Housing

Dirty, wet housing leads to dirtier animals.

You should:

- Keep the housing well ventilated
- Make sure the housing has good floor drainage
- Make sure the housing has a dry lying area that is big enough for the number of animals

Slatted sheds

In slatted sheds, you should keep to appropriate stocking rates. This is because dung won't be pushed through the slats if the houses are over-stocked or under-stocked.

Straw bedding

If the house has straw bedding, you should:

- Keep the bedding clean and dry
- Place water troughs where they won't wet the bedding
- Fix leaks immediately
- Use enough straw
- Bed regularly

Transport

It's important to keep animals clean, dry and stress-free during transport. Make sure:

- Animals are dry before loading – if the weather is wet, you may need to house animals for a period of time to allow them to dry off
- The animals' stress is minimised during transport and when they are being loaded and unloaded – stressed animals produce more dung
- Vehicles are well ventilated and not overloaded so animals don't sweat



Hauliers should make sure vehicles are washed and disinfected after each load.



Clipping

Clipping fleeces and hides can improve the cleanliness of an animal. But, don't clip cattle's hide on the farm. This can be dangerous for the farmer and very stressful for an animal. If clipping is necessary before slaughter, it will be carried out at the abattoir where there are specialised operators and equipment. However, you can:

- Clip cattle's tails at housing – this stops dirt being flicked over the coat
- Shave a 10-15 cm (4-6 inches) strip along the spine from shoulders to tail head – this helps keep cattle dryer because it reduces sweating
- Clip wool from the hindquarters of sheep (dagging) before sending for slaughter

5. Use organic fertilisers safely

Manure, slurry and biosolids are organic fertilisers used on farms. They can contain harmful bacteria, so it's important to use them safely so they don't contaminate:

- Food crops
- Forage crops
- The grass
- Water supplies

Treat manure and slurry

You can reduce the number of harmful bacteria in manure and slurry when you treat it, by:

- Storing
- Composting
- Aerating or
- Adding lime



Protect water supplies

Farmers must manage manure and slurry according to the European Communities (Good Agricultural Practice for Protection of Waters) Regulations, 2010 (S.I. No. 610 of 2010). The aim of this Regulation is to reduce water pollution by nitrates, but it will also reduce the risk of water supplies being contaminated with harmful *E. coli*.

Biosolids

Biosolids are the by-products of urban sewage treatment. You should:

- Only use biosolids that have been treated to an approved standard
- Follow the recommendations in the Department of the Environment, Community and Local Government's **Guidelines for the Use of Biosolids in Agriculture**
- Get a copy of this Code of Practice from www.environ.ie or by phoning the Department on 1890 20 20 21



Septic tanks

- Don't collect sewage from household septic tanks to spread on land. This type of waste has not been treated and can spread human diseases.
- Septic tank sludge must only be removed by a contractor who holds a Waste Collection Permit from the local authority.
- Contact your local authority for a list of permitted contractors in your area.

Land used for grazing

If you spread organic fertilisers on land that is used for grazing you should leave at least three weeks before grazing.

Land used for forage crops

If you spread organic fertilisers on land that is used for growing forage crops, you should leave at least three weeks before harvesting.



Land used for ready-to-eat food crops

It's important that ready-to-eat food crops are not contaminated with harmful bacteria from organic fertilisers or animals. Ready-to-eat foods aren't cooked before eating. Cooking kills harmful bacteria.

Never spread:

- Untreated organic fertilisers on land that will be used for ready-to-eat food crops
- Organic fertilisers after ready-to-eat food crops have been planted

If animals have been grazing on land you want to use for growing ready-to-eat crops, make sure you:

- Leave at least 12 months between the last grazing and harvesting



6. Use a safe water supply

In Ireland, there have been outbreaks of *E. coli* infection caused by contaminated water supplies. Private water supplies in rural areas are most at risk of being contaminated.

If you use a group water supply:

- Contact the water supply's operator to make sure the water complies with the European drinking water legislation. They can provide you with the results of testing

If you use a private water supply:

- Have the water tested (at least once a year) to make sure the water complies with the European drinking water legislation
- Contact your local council or environmental health office for advice on testing
- It's a good idea to test water after heavy rainfall as this is when the water is most likely to be contaminated
- You may be eligible for the local council's **Well Grant Scheme** if there are deficiencies in your supply

Boil water when necessary

If there is a problem with microorganisms in your drinking water, make sure to boil it before using it, to:

- Drink, or prepare drinks made with water
- Prepare foods that will not be cooked before eating
- Make ice
- Brush teeth



Water troughs

Harmful *E. coli* can live in the sediments in water troughs and drinking bowls, so:

- Keep water troughs and drinking bowls clean
- If possible, place water troughs in direct sunlight (not the shade) – direct sunlight can kill *E. coli*
- Don't place water troughs and feed troughs side-by-side – feed carried over into water troughs by animals helps *E. coli* to grow

Water used to irrigate crops

Irrigation water contaminated with harmful *E. coli* will contaminate crops. You should:

- Make sure irrigation water is as clean as possible
- Follow the advice in the Food Safety Authority of Ireland's **Code of Practice for Food Safety in the Fresh Produce Supply Chain**
- Get a copy of this Code of Practice from: www.fsai.ie; info@fsai.ie or phoning 1890 33 66 77

Tips to reduce the risk of *E. coli* from your farm

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