COMPASSION in world farming
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# Teachers' Notes: How should we treat farm animals?

*An opinion-forming exercise designed to promote small group discussion*

PSHE/Citizenship | Science | English | Religious Studies | Geography | Animal Science/Management

Age range < 5 5 6 7 8 9 10 11 12 13 14 15 16 17 18 adult

## Objectives

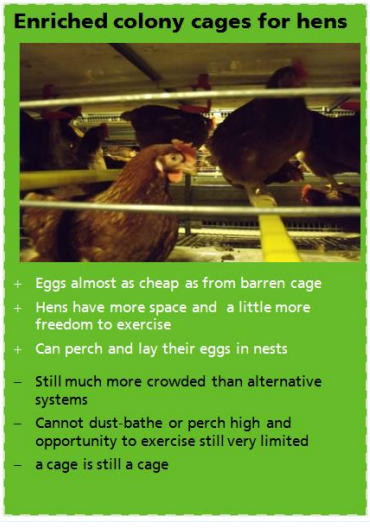
- To encourage a basic understanding of how animals are farmed for food including intensive and less intensive systems using concrete examples
- To develop an understanding of the ethical issues involved
- To develop speaking, listening and decision making skills
- To encourage respect for other viewpoints through more detailed analysis
- To encourage concern for the welfare of both people and animals

## How It Works:

Each page contains four "cards" like the two illustrated below. Each explores different sides of a farm animal welfare issue. Students discuss whether they agree or disagree with the subject on the card. Extension activities encourage more detailed analysis.

More reticent students who don't like to talk in front of a whole class will often discuss actively in a small group. If it is true that we learn more by talking than listening, then good small group discussion activities can promote wider learning.

The activity is available separately as card or worksheets. It matters which version you choose to print – the notes on the back have to be printed in reverse order in the card version. You will get the wrong notes on the back if you use the wrong version!

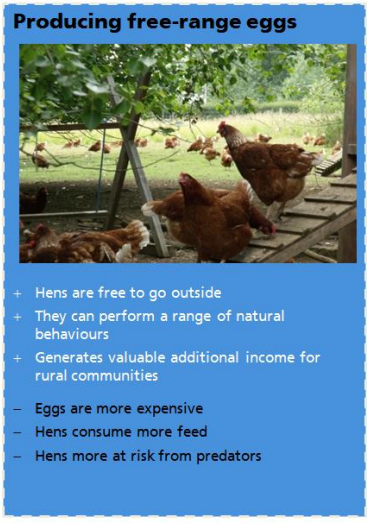



## Differentiation:

This is an extremely flexible resource which can be adapted over a wide range of age and ability.

Students commonly make quick decisions based on a reading of the heading and the picture. This is a good way to start, and works for groups with limited reading ability.

Additional activities require them to look at additional information below the picture and, for more able students, at the more detailed information on the back of the card.



## A Flexible Resource:

This activity has been designed for use as cards, but it can also be used as worksheets for simpler management.

The resource can also be used in the following ways:

- As cards in **sorting activities** which increase understanding of methods of farming
- In **role-play** exercises where they consider the viewpoints of different stakeholders (eg consumers, farmers, farm animals, environmental protection groups etc).
- As a source of **information** for students researching for debates, essays etc

Please note that if using as worksheets, the additional information on the back of the sheet is inverted left to right (this is necessary to ensure the right information is on the back when using as cards).

## Fitting into Lessons and Programmes

This resource is best used as part of a series of activities which encourage a wider understanding of food and farming and of the ethics involved.

We strongly recommend including films such as *Farm Animals & Us* (ages 10-15) or the more detailed *Farm Animals & Us 2* (ages 14-adult). Including farm visits is an excellent idea when time and resources allow.

These are available on YouTube, as free downloads or on DVD from ciwf.org.uk/education.

## Tips for Managing Cards:

This activity can use cards or worksheets. Using the card version gives more options for flexible discussion and sorting activities, but requires more management.

Please note that the card and worksheet versions are different and you should print the correct one – the notes on the back of the cards have to be reversed (the back of the sheet is the mirror of the front). The cards need to be printed double-sided for this to work. If you are not sure which version you have printed, the one for cards says "Cut into cards …" at the top of the front page of each sheet.

The cards are printed in advance with the pictures and basic information on the front and the additional information (on the next page) on the back.

Ideally they are cut up in advance and laminated. We recommend placing in envelopes (rubber bands perish and can make tempting projectiles). You need enough sets for a class divided up into groups of 2, 3 or 4.

Alternatively, hand out as sheets with pairs of scissors for the first group to cut up.

To avoid the risk of sets of cards getting mixed up, we recommend numbering each group of cards (first group puts a number 1 on the back of each card, second group a 2 etc). If they do get mixed up, they will be much easier to sort.

**Possible Lesson Plan** (50-60 minutes):

1. Class brainstorms foods we get from animals (2 minutes)
2. Class brainstorms ways in which animals are kept for food, eg how are hens kept, pigs kept etc (2 minutes)
3. *Where Do You Draw the Line?* Card or worksheet exercise completed in groups. Groups decide which methods of production they agree or disagree with. (5 minutes)
4. Watch Compassion in World Farming video *Farm Animals & Us* (17 minutes for ages 10 and upwards) or the more detailed *Farm Animals & Us 2* (26 minutes for ages 14 to adult). Both films are available free on DVD, for download or to view online at ciwf.org.uk/education.
5. Option to encourage questions and whole class discussion (this may take no time at all or the rest of the lesson according to the interest and dynamics of the group and whether the teacher prefers to progress back to a small group discussion exercise)
6. Small group discussion activity:

   If using cards, sort them into groups of 4 or 8 according to the type of animal or the food being produced. Further divide any 8s into 4s according to what is being produced. There should be five sets of:

   - 4 laying hens
   - 4 meat chickens
   - 4 dairy cows
   - 4 breeding pigs (sows)
   - 4 fattening pigs (for pigmeat production)

   NB If using worksheets which have not been cut into cards, omit this section since they will already be in the correct groups of 4 (approx 5 mins).

   Choose one group of four and:

   - Sort from best to worst
   - Take the best and list all the advantages and disadvantages of the system (additional info is on the back of the cards to help with this)
   - Do the same for the worst
   - If time, repeat for other groups (10-15 minutes).
7. Whole group discussion of issues raised. Collect together the general arguments in favour or against more intensive farming and/or higher welfare/free-range and organic systems (approx 5 minutes).

**Variations**:

1. If you have a longer session, or can devote two lessons to the topic, show the film in a previous lesson, ideally starting the session with the *Personality Test* exercise.

   Hopefully, this will allow time for each group to prepare the example they studied above to present to the rest of the class before the overall class discussion of the pros and cons of intensive vs less intensive systems.

2. Use the cards in a role-play exercise. Groups to take on roles eg animal rights, animal welfare, farmers, meat industry, battery cage manufacturers, conservationists etc. Provide with range of literature. Research using the internet.

3. Use the cards in a whole class exercise with the class sitting in a circle. Give each student one card. Each presents their view and places the card in the appropriate place in the middle of the circle (totally acceptable at one end; totally unacceptable at the other). Provide opportunities for whole class discussion after every five cards or so. In this case, it can promote a long discussion (in small groups, it is usually quite quick). Best used after viewing the film.

# How should we treat farm animals? Egg production cards

Cut into cards and sort according to how far you agree or disagree with each method of production

## Barren battery cages for hens

+ Produces cheap eggs
+ Lack of exercise means they consume less feed
+ Crowding means higher production per shed

– Illegal in the UK and the European Union (EU) due to poor welfare
– Cannot dust-bathe, perch, scratch for food, lay eggs in nest or even stretch wings
– Lack of exercise leads to brittle bones and broken bones when caught for slaughter

## Enriched colony cages for hens

+ Eggs almost as cheap as from barren cage
+ Hens have more space and a little more freedom to exercise
+ Can perch and lay their eggs in nests

– More crowded than non-cage systems
– Cannot dust-bathe or perch high and opportunity to exercise very limited
– A cage is still a cage

More information on back of these cards

## Hens in barn system

+ Hens have much more freedom of movement than in a cage
+ Can dust-bathe, scratch for food, perch and lay their eggs in nests
+ Compromise between cost and welfare

– Hens are not free to go outside
– The system remains intensive
– Should consumers have to pay extra for this?

## Free-range system for hens

+ Hens are free to go outside
+ Can dust-bathe, scratch for food, perch and lay their eggs in nests
+ Generates valuable additional income for rural communities

– Eggs are more expensive
– Hens consume more feed
– Hens more at risk from predators

Produced by Compassion in World Farming – ciwf.org.uk/education

# How should we treat farm animals? Egg production cards

If you cut the cards from the other side, these should fit.

## Enriched colony cages for hens

These cages were designed to address some of the welfare problems caused by keeping birds in barren battery cages.

Birds are given a little more space each. They are also provided with a dark nesting space, perches and scratching areas. They have enough space to stretch their wings.

This adds to the cost, but colony cages still produce eggs more cheaply than most alternative systems.

Standard enriched cages may hold around 10 birds. The larger colony cages may house 60-80 birds and allow a little space for exercise.

Critics of the system argue that a cage is still a cage. The birds cannot dust-bathe when their feathers become greasy. Birds naturally perch high, but these perches are low.

The scratching areas are often totally inadequate. The birds may have to queue for nesting space. There is still little head-room.

The system is still much more crowded than good alternative systems.

## Barren battery cages for hens

Most of the world's laying hens are kept in battery cages.

The system was developed to produce more profit for egg farmers by reducing costs. In turn this has led to a reduction in egg prices.

Costs are lower in cage systems. The birds are more crowded and cages are stacked above each other. This means more birds can be fitted into the shed.

They eat less feed because they are kept warm and cannot exercise. They may also lay more eggs and these are easier to collect.

It is easier to keep parasites out of the shed and to keep the eggs clean.

Critics complain about the extreme confinement. The hens are squashed together without enough space even to stretch their wings.

The hens cannot perch, dust-bathe, scratch for food or lay their eggs in nests.

Lack of exercise can lead to brittle bones which may break on the way to slaughter. The barren cage was banned in the UK and the EU in 2012.

## Free-range system for hens

Free-range hens live in a barn with access to a field. The best systems provide trees and bushes to provide cover and encourage the birds to range (roam around).

Inside, they have the same facilities and levels of crowding as in a barn system. During the day they are also allowed outside, which reduces the crowding inside.

This means they have more opportunity to exercise, dust-bathe, scratch for worms and sun-bathe. They can lay their eggs in nests and perch high.

Free-range units are usually much smaller than those with cages. So, as more people buy free-range eggs, more farmers get involved in egg production. Free-range systems require more labour which is good for rural employment.

Critics would argue that many consumers would prefer to buy cheaper eggs. The hens consume additional feed and are more at risk from predators and parasites.

## Hens in barn system

Barn hens have the freedom of a large shed, but they cannot go outdoors.

Barn hens have the space to exercise and can perform a range of natural behaviours.

They can lay their eggs in nests and dust-bathe when their feathers become greasy or to discourage parasites. They can scratch for food and perch high when resting.

UK and EU rules require a maximum of 9 birds per square metre in the shed. This compares with over 13 birds per square metre in enriched cages and 18 in barren cages. Systems elsewhere may be more crowded.

Barn eggs are generally more expensive than caged eggs but cheaper than free-range.

Some critics argue that the birds are still crowded and that they should be allowed to range outside.

Barn hens may be more at risk from bone breakages due to flying into equipment in the barn and each other.

They are also likely to peck each other's feathers. (NB this can happen in any system.)

# How should we treat farm animals? Chicken production cards

Cut into cards and sort according to how far you agree or disagree with each method of production

## Intensive chicken meat production

+ Produces chicken cheaply
+ Fast growing chickens consume less food
+ Crowding reduces costs

– Fast-growing chickens suffer fatigue and become tired easily
– They are often lame so walking can be difficult and painful
– Should they live in these crowded conditions?

## Less intensive indoor chicken meat

+ A compromise between cost to the consumer and chicken welfare
+ Birds have more space and things to do
+ Slower growing chickens are more active and suffer less from lameness

– Slower-growing chickens consume more feed
– The birds are still kept inside
– Should people be expected to pay more for their chicken?

## Free-range chicken meat production

+ Chickens are free to go outside
+ Chickens grow at a slower more natural rate and can enjoy a longer life (at least 8 weeks)
+ Higher welfare systems generate extra income for rural communities

– Slower-growing more active birds consume more feed
– Extra labour required
– This all makes free-range chicken more expensive

## Organic chicken meat production

+ Chickens consume feed made without using artificial fertilisers or pesticides
+ Plenty of space inside and out
+ Grow even more slowly and can enjoy a longer life (usually over 10 weeks)

– Chickens consume a lot more feed than in other systems
– Requires a lot more land especially for growing the feed
– Much more expensive to produce

# How should we treat farm animals? Chicken production cards

If you cut cards from the other side, these should fit.

## Less intensive indoor chicken

The picture shows chickens in an *RSPCA-Assured* system.

The birds have more space than in intensive systems and have more things to do. They have straw bales which they can perch on or scratch to bits.

Natural light encourages activity and natural behaviours. Exercise is good for the birds.

Extra space makes it easier to prevent pollution from the birds' droppings. The birds are less likely to suffer hock-burns, foot-pad burns or breast blisters from the ammonia in the litter. This is good for meat quality.

Slower growing birds are naturally more active and get less tired. They walk more easily and are much less likely to suffer from lameness. Mortality levels are lower and they may be less likely to need antibiotic treatment.

The system is a compromise between welfare and price, but not everyone is satisfied. Some critics think the meat is still too expensive. Others believe the birds should be allowed outside.

## Intensive chicken production

Chicken used to be an expensive luxury food, eaten occasionally.

Today, chicken is one of the cheapest meats available. Consumption across the world has gone up 5-10 times.

Cheap chicken production has been made possible by keeping them indoors. Advances in management and ventilation mean that the chickens can be crowded closer together.

The chickens grow faster. Selective breeding has produced a chicken which can be killed at less than 40 days old. Chickens naturally take 120 days to become adults.

Critics of the system are concerned about the welfare of the birds. Crowding is uncomfortable and the chickens can find it difficult to get around the shed. The environment can still become hot and humid. The air can become polluted with ammonia from their droppings.

Fast growing birds are more likely to become tired. They can suffer from lameness and heart conditions. They are commonly treated with antibiotics to prevent sickness.

## Organic chicken

Organic chickens eat food which is grown without artificial fertilisers and pesticides.

The birds are allowed outside for the last third of their lives. Those reared to *Soil Association* organic standards are free-range for twice this.

Most organic birds are of slower growing breeds. They are more active and suffer less from problems such as lameness. Slower growing birds have less fat, but more healthy omega-3. Organic birds are less likely to need antibiotics.

Higher welfare systems which produce more expensive birds also generate more income for rural communities.

Most organic chickens live for at least 70 days. A longer life may be good for the chicken, but slower growth means organic chickens are likely to eat 60% more feed than intensive birds.

Yields of grain in organic systems are also lower than in intensive agriculture. It is often argued that organic production is not sustainable on a global level unless we eat less meat, especially from chickens fed on grain.

## Free-range chicken

Free-range chickens can roam outside during the day. They can exercise, scratch for worms and sun-bathe.

They also have extra room indoors. EU rules give free-range birds a third more space inside than in some intensive systems.

Under UK and EU regulations, free-range birds cannot be slaughtered until they are 56 days old. Some people believe they enjoy a longer and better life.

Free-range birds grow more slowly, so may suffer less from lameness and heart disease.

Free-range chickens reared to *RSPCA-Assured* standards are of slower growing breeds. These are more active which is good for their health. They may need less antibiotic treatment.

Whilst it takes very little extra land to house them, free-range chickens may consume up to a third more feed. Unless consumers buying free-range also choose to eat less meat, this can mean that more land is used to produce free-range chicken. The birds are more at risk from predators and the meat is more expensive.

# How should we treat farm animals? Pig breeding cards

Cut into cards and sort according to how far you agree or disagree with each method of production

## Sow stalls for breeding pigs

+ Takes up less space so cheaper
+ Prevents sows from fighting over food
+ Sows can be given more or less food according to what they need

– System prevents the sow from exercising, socialising and foraging for food
– The sow cannot even turn around for weeks or months on end
– The sow cannot urinate or eliminate faeces away from her lying area

## Farrowing crates for sows

+ Can help prevent sow from rolling on her young
+ Economical of space
+ Produces piglets cheaply

– Prevents mother from interacting properly with her young
– Prevents her from nest-building before birth leading to stress and risk of still-births
– Caged sows are less content and produce less milk, so more piglets may starve

## Indoor free-farrowing

+ Gives sows some freedom of movement
+ Designed to reduce piglet crushing without confining the sow
+ Better welfare can mean more milk production, so piglets grow better

– Some systems are more expensive to set up
– May require good management to keep piglets alive
– Pigs still bred indoors without access to a natural environment

## Breeding pigs outdoors

+ Sows free to perform natural behaviours
+ Cheap to set up since no buildings required
+ Extra labour required good for rural employment

– Costs more for feed and labour
– The sows plough up the ground so that nutrients run off into the water supply
– Working in all weathers difficult for workers

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# How should we treat farm animals? Pig breeding cards

If you cut cards from the other side, these should fit.

## Farrowing crates for sows

It is common for piglets to get squashed under the weight of their large mothers. The risk is particularly high during the first three days after birth after which the piglets are better at looking after themselves.

The farrowing crate is a cage designed to control how the mother moves and to reduce the risk of crushing her piglets.

The majority of farrowing sows throughout the world are kept in farrowing crates until the piglets are weaned at 3-4 weeks old.

A few systems release the sow when the piglets are 3-7 days old.

Critics of the system are concerned that the sow is severely confined. She cannot perform nesting behaviour before she gives birth. This causes stress and can delay birth, leading to some piglets being born dead.

Confined sows may produce less milk. This can result in piglets dying of starvation.

There are free-farrowing systems which keep pig death rates down without using farrowing crates. These need good design and management.

## Sow stalls for breeding pigs

When sows are put into groups at the beginning of pregnancy, they will often fight and injure each other. This is a particular problem at feeding time, if they don't have enough space and if they are kept with other sows they don't know well. The stress can result in a sow losing an early pregnancy.

Keeping sows in solitary confinement prevents fighting. Sows can be crowded closer together to save space. Thinner sows can be given extra food. The system is easier to manage, especially for less experienced farm workers.

Confinement prevents the sow from behaving as she wishes. She can't exercise or forage for food. She cannot socialise properly.

She cannot walk away from her lying area to excrete, so she is likely to suffer from urinary infections. Lack of exercise can lead to weak muscles and bones.

The sow stall is banned in the UK. In the EU it is banned after the first four weeks of pregnancy. Keeping sows in stable groups and using stalls just at feeding times can reduce fighting.

## Breeding pigs outdoors

Sows kept outdoors are free to forage in the soil. They give birth to their piglets in small huts. Plenty of bedding is provided to keep the sow and her piglets warm.

The sows are free to interact fully with their piglets. They can also wander off when they need some peace!

Breeds of pig are used who are adapted to outdoors and who make good mothers.

Survival rates for piglets are similar to those in indoor systems with farrowing crates. Some years the figures are worse. Other years they are better.

The system is cheap to set up since it doesn't require buildings, though land is required.

The system is more expensive in labour. This is good for rural employment but can add to the expense of pigmeat. The sows also consume additional feed.

The system is commonly free-range only for breeding. The piglets are usually kept indoors after weaning from their mother at around 4 weeks old. In Britain the meat is often sold as "Outdoor Bred."

## Indoor free-farrowing

Free farrowing systems are better for the sow. She can be free to make a nest before farrowing (giving birth). She is free to move around. She has some chance to stop older piglets from pestering her.

Many farmers are concerned about the risk of piglet being crushed by their mothers in these systems. Not all wish to take the chance.

Free farrowing systems have to be well designed and managed to reduce this risk. For example, most systems have heated areas with bedding to encourage the piglets away from areas where they may get crushed.

The best systems do not have higher piglet death rates than the farrowing crate. They have the advantage that free sows are more relaxed, eat more and produce more milk. The piglets grow better and fewer starve.

The system requires good management. Changing to indoor systems which give the sow some freedom of movement costs money and some of them are more expensive to set up.

# How should we treat farm animals? Pigmeat production cards

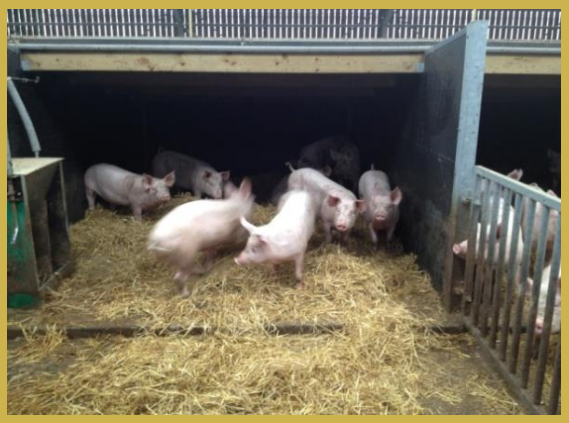
Cut into cards and sort according to how far you agree or disagree with each method of production

## Rearing pigs in slatted pens

+ Keeps pigs clean and reduces risk of salmonella
+ Easy to maintain so cheap on labour
+ Produces pigs cheaply and efficiently

– Pigs are inquisitive animals and this system gives them nothing to do
– They are likely to bite each others' tails out of boredom
– To prevent this, nearly all pigs in systems like this have the end of their tails cut off

## Rearing pigs on a straw bed



+ Straw provides a comfortable bed
+ If fresh straw is added frequently, the piglets will spend hours happily foraging through it
+ Some straw-based systems manage to keep tails on pigs without a high risk of tail-biting

– Straw is expensive and requires extra labour which adds to the cost of production
– The system can be more difficult to keep clean
– The pigs can't go outside

## Keeping pigs free-range

+ Pigs are free to go outside and play when they want to
+ Cheap to set up since no buildings required
+ Extra labour required good for rural employment

– The pigs consume additional feed
– Requires extra labour which also adds to costs
– The pigs plough up the ground so that nutrients run off into the water supply

## Keeping pigs organically

+ Piglets stay longer with their mothers so they are more used to solid food by the time they are weaned from their mothers
+ British organic piglets are kept free-range
+ They are free of mutilations such as castration, tail docking and tooth clipping

– Organic pigs consume significantly more food while they are growing
– People would have to eat less meat if it was all organic due to reduced productivity
– Organic pigmeat is much more expensive

# How should we treat farm animals? Pigmeat production cards

If you cut cards from the other side, these should fit.

## Rearing pigs on a straw bed

Pigs like straw. It makes a comfortable bed and helps them keep warm.

Above all, they like rooting in it. It contains the occasional grain they like to eat. Actually, they also eat parts of the straw itself. Fibre from the straw reduces the risk of gastric ulcers.

As long as additional straw is frequently added, pigs can spend 20% of their time rooting through it.

Happily occupied in rooting, piglets kept on straw are much less likely to bite each others' tails. Many straw-based systems therefore manage their pigs without tail-docking.

Critics argue that straw is expensive and requires more labour to manage. It may be harder to keep the pigs clean. Microbes in the straw can cause disease.

Pigmeat from straw-based systems is slightly more expensive to produce. Despite this, the pigs don't get the chance to go outside.

## Rearing pigs in slatted pens

This system is increasingly popular in modern industrial production. It is considered an efficient way of producing pork and bacon.

It is easier to keep the pigs clean since their droppings fall through the slats to the pit below.

Avoiding the use of bedding material such as straw can reduce the risk of bringing in disease.

The system requires less labour and produces pigmeat more cheaply than straw-based systems.

The surface is less comfortable for lying or walking. Pigs are more likely to become lame.

The environment is barren and the lack of straw means that piglets get bored. There is a high risk of tail-biting so pigs are nearly always tail-docked in this system.

UK and EU legislation requires the provision of material such as straw and bans routine tail-docking. Slatted pens without straw are common in both the UK and the EU, but fail to meet these legal requirements.

## Keeping pigs organically

Organic pigs are fed on a diet which has been grown without using chemical pesticides or fertilisers.

They have extra space and are weaned later. Spending longer with their mother means that they are less likely to suffer digestive problems at weaning. So, organic pigs are less likely to need antibiotic treatment.

UK and EU organic rules require the provision of bedding and an outside run. The run may be made of concrete but, if so, they must be given plenty of vegetation for foraging.

With plenty of space, bedding and forage the risk of tail-biting is low so they are not usually tail-docked. UK Soil Association rules go further. The pigs are kept free-range with access to earth and no mutilations are permitted.

Organic pigs require more feed and the meat is much more expensive to produce. Some would question whether we would have enough land to feed the world if everyone bought organic.

## Keeping pigs free-range

Pigs are curious animals and being able to go outside gives them plenty of opportunity to explore and forage for food.

They also have plenty of space to play.

When it is cold or wet, they can go inside the shed where there is a warm bed of straw.

They are provided with water which they use to make a wallow to cool down in hot weather.

With plenty of space and things to occupy them, they are far too busy to even think of biting each other's tails. Tail docking is rare in free-range systems.

All that exercise means that free-range pigs eat extra feed. The system requires extra labour which means more rural jobs but adds to the cost of the meat.

Can we expect people on a budget to pay extra for free-range?

# How should we treat farm animals? Milk production cards

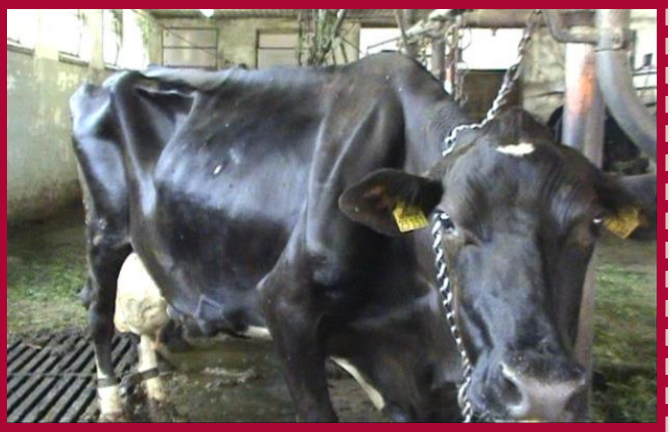
Cut into cards and sort according to how far you agree or disagree with each method of production

## Keeping cows indoors all year

+ Means the feed of high yielding cows can be carefully controlled
+ Helps maintain yields without loss of weight or digestive problems
+ System produces milk economically

– Cows enjoy going outside to graze, socialise and lie in groups
– Cows kept inside are more at risk from conditions such as lameness
– Why not breed cows which can maintain good health and moderate yields on grass?

## Tethering cows



+ Tethering is a traditional way of keeping cows when housed
+ It helps prevent cows from being bullied
+ Many tethered cows get daily exercise and are allowed out in summer

– Tethering prevents natural behaviours such as socialising and exercise
– Conditions are often cramped and uncomfortable
– Some tethered cows are kept tied up all day, every day. This cow is tied up all the time.

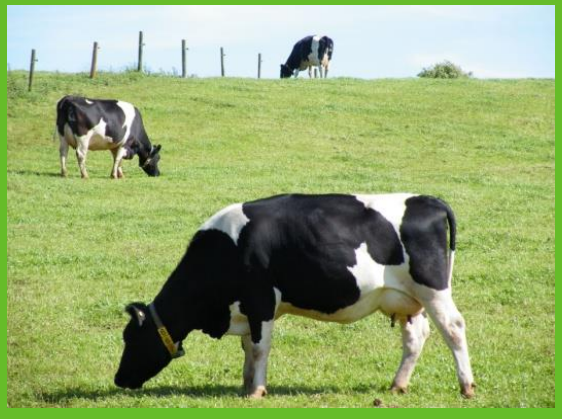
## Keeping dairy calves with Mum

+ Rearing a calf is naturally fulfilling and pleasurable for the cow
+ Calves learn social skills from their mother
+ Calves grow faster and better

– The calves will consume much of the milk
– The milk will be more expensive
– It is much cheaper to raise calves on milk substitutes containing milk by-products.

This is an organic farm called the "Ethical Dairy." The picture was taken in November – in summer they will be out in fields.

## Keeping cows organically



+ Organic rules state that herbivores (such as cows) must have access to pasture "whenever conditions allow."
+ Grass and clover improve soil fertility
+ Organic cows are less likely to suffer lameness

– Less intensive systems require more land to produce the same amount of milk
– Organic milk is more expensive
– On a conventional farm, you could feed more people by growing crops like wheat and rapeseed using artificial fertilisers.

# How should we treat farm animals? Milk production cards

If you cut cards from the other side, these should fit.

## Tethering cows

Cows were traditionally tied up in winter. Cows which are tied up use less space, which makes for cheaper housing.

Like other forms of solitary confinement, tethering prevents aggression. The individual cows are easy to monitor and it is easy to treat sick animals.

However, the cows pay a heavy price for this extreme confinement. Natural behaviours such as exercise and social interaction are impossible whilst tied up.

The system is expensive in labour and is less often found in larger more modern farms. Cows can receive any individual treatment they need during or after milking.

Some farmers give their tethered cows daily exercise and allow them out in summer. Others are tied up all day, every day.

The system is permitted, though rare, in the UK.

## Keeping cows indoors all year

The modern high-yielding dairy cow needs a carefully controlled diet.

If she doesn't get enough to eat, she loses weight and can become infertile. This means she can't produce another calf so she won't be able to continue producing milk. Infertile cows are sent to slaughter.

If she doesn't get enough fibre, she can suffer digestive problems.

The high-yielding cow is often kept indoors to give her a carefully balanced diet rather than to leave her to eat grass which varies in quality.

Critics argue that cows enjoy the freedom to go outside. They enjoy grazing and resting together in fields where there is more space.

Systems can be devised which allow the cows both inside and out so that they can eat the balanced diet inside and then graze a bit outside.

Another alternative is to breed a cow who can stay healthy and produce milk on a grass diet.

## Keeping cows organically

Organic cows are kept free-range in summer. UK and EU organic rules state that organic herbivores must have access to pasture whenever conditions allow.

Organic farms don't use artificial fertilisers on the land to maintain soil fertility. Grass plays a valuable role in mixed organic farms, helping to build up fertility. Cows eat the grass and their manure helps to fertilise the soil so that crops such as wheat can be grown in future years.

Organic cows tend to be of less intensive breeds which are often healthier and live longer.

Scientific studies have shown that lameness is much less common in organic farms. This is partly because the cows spend more time outside on grass.

Organic milk is a little more expensive to produce. Yields of milk per hectare are also lower.

Organic farmers try to avoid using antibiotics where possible. Some critics fear that animals may get insufficient treatment. Organic farmers argue that they treat when necessary, but healthy organic animals are less likely to need it.

## Keeping dairy calves with Mum

Dairy calves are usually separated from their mothers shortly after birth so that people can have the milk which she would give to her calf. The calves are either reared on a cheaper alternative feed or may be shot at birth.

Separation causes distress to both mother and calf.

Keeping dairy calves with their mothers allows the cows to fulfil their natural maternal instincts. Cow and calf lie together, lick each other and the calf can suckle. The calves also grow much better and learn more social skills.

One farmer who tried leaving mother and calf together noticed the cows becoming more confident. Aggression decreased, both to each other and to people. A calmness descended on the cowshed.

However, even though dairy cows produce far more milk than beef cows, the calves still drink nearly all of it. They grow really well, but to produce enough milk for people the calves would need to be kept apart for half the day.

Even this would add substantially to the price of milk, whilst reducing the quantity available.

# How should we treat farm animals? Egg production worksheet

Do you agree or disagree with these systems of egg production. Are some better than others?

## Barren battery cages for hens

+ Produces cheap eggs
+ Can't exercise, so they consume less feed
+ Crowding means higher production per shed

– Illegal in the UK and the European Union (EU) due to poor welfare
– Cannot dust-bathe, perch, scratch for food, lay eggs in nest or even stretch wings
– Lack of exercise leads to brittle bones and broken bones when caught for slaughter

## Enriched colony cages for hens

+ Eggs almost as cheap as from barren cage
+ Hens have more space and a little more freedom to exercise
+ Can perch and lay their eggs in nests

– More crowded than alternative systems
– Cannot dust-bathe or perch high and opportunity to exercise very limited
– A cage is still a cage

## Hens in barn systems

+ Hens have much more freedom of movement than in a cage
+ Can dust-bathe, scratch for food, perch and lay their eggs in nests
+ Compromise between cost and welfare

– Hens are not free to go outside
– The system remains intensive
– Should consumers have to pay extra for this?

## Free-range systems for hens

+ Hens are free to go outside
+ Can dust-bathe, scratch for food, perch and lay their eggs in nests
+ Generates valuable additional income for rural communities

– Eggs are more expensive
– Hens consume more feed
– Hens more at risk from predators

# How should we treat farm animals? Egg production worksheet

Side 2

## Eggs from barren battery cages

Most of the world's laying hens are kept in barren battery cages.

The system was developed to produce more profit for egg farmers by reducing costs. In turn this has led to a reduction in egg prices.

Costs are lower in all cage systems. The birds are more crowded and cages are stacked above each other. This means more birds can be fitted into the shed.

They eat less feed because they are kept warm and cannot exercise. They may also lay more eggs and these are easier to collect. It is easier to keep parasites out of the shed and to keep the eggs clean.

Critics complain about the extreme confinement. The hens are squashed together without enough space even to stretch their wings. The hens cannot perch, dust-bathe, scratch for food or lay their eggs in nests.

Lack of exercise can lead to brittle bones which may break on the way to slaughter. The barren cage was banned in the UK and the EU in 2012.

## Enriched colony cages for hens

These cages were designed to address some of the welfare problems caused by keeping birds in barren battery cages.

Birds are given a little more space each. They are also provided with a dark nesting space, perches and scratching areas. They have enough space to stretch their wings.

This adds to the cost, but colony cages still produce eggs more cheaply than most alternative systems.

Standard enriched cages may hold around 10 birds. The larger colony cages may house 60-80 birds and allow a little space for exercise.

Critics of the system argue that a cage is still a cage. The birds cannot dust-bathe when their feathers become greasy. Birds naturally perch high, but these perches are low.

The scratching areas are often totally inadequate. The birds may have to queue for nesting space. There is still little head-room.

The system is still much more crowded than good alternative systems.

## Hens in barn system

Barn hens have the freedom of a large shed, but they cannot go outdoors. Barn hens have the space to exercise and can perform a range of natural behaviours.

They can lay their eggs in nests and dust-bathe when their feathers become greasy or to discourage parasites. They can scratch for food and perch high when resting.

EU rules require a maximum of 9 birds per square metre in the shed. This compares with over 13 birds per square metre in enriched cages and 18 in barren cages. Systems outside the EU may be more crowded than this. These EU rules apply in the UK.

Barn eggs are generally more expensive than caged eggs but cheaper than free-range.

Some critics argue that the birds are still crowded and that they should be allowed to range outside.

Barn hens may be more at risk from bone breakages due to flying into barn equipment and each other.

They are also likely to peck each other's feathers. (NB this can happen in any system.)

## Free-range system for hens

Free-range hens live in a barn with access to a field. The best systems provide trees and bushes to provide cover and encourage the birds to range.

Inside, they have the same facilities and levels of crowding as in a barn system. During the day they are also allowed outside, which reduces the crowding inside.

This means they have more opportunity to exercise, dust-bathe, scratch for worms and sun-bathe. They can lay their eggs in nests and perch high.

Free-range units are usually much smaller than caged ones. This means that as more people buy free-range eggs, more farmers get involved in egg production. Free-range systems require more labour which is good for rural employment.

Critics would argue that many consumers would prefer to buy cheaper eggs. The hens consume additional feed and are more at risk from predators and parasites.

# How should we treat farm animals? Chicken production worksheet

Do you agree or disagree with these systems of chicken production. Are some better than others?

## Intensive chicken meat production

+ Produces chicken cheaply
+ Fast growing chickens consume less food
+ Crowding reduces costs

– Fast-growing chickens suffer fatigue and become tired easily
– They are often lame so walking can be difficult and painful
– Should they live in these crowded conditions?

## Less intensive indoor chicken meat

+ A compromise between cost to the consumer and chicken welfare
+ Birds have more space and things to do
+ Slower growing chickens are more active and suffer less from lameness

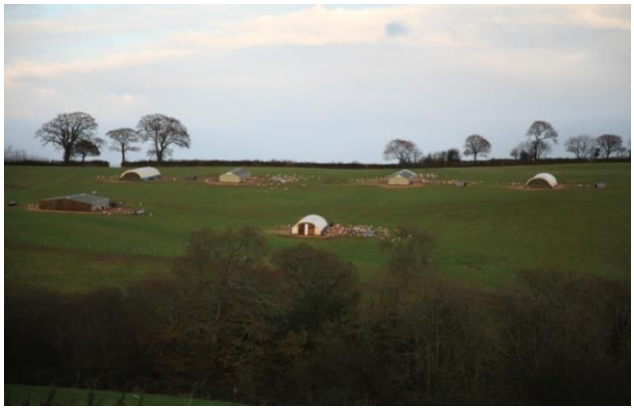
– Slower-growing chickens consume more feed
– The birds are still kept inside
– Should people be expected to pay more for their chicken?

## Free-range chicken meat production

+ Chickens are free to go outside
+ Chickens grow at a slower more natural rate and can enjoy a longer life (at least 8 weeks)
+ Higher welfare systems generate extra income for rural communities

– Slower-growing more active birds consume more feed
– Extra labour required
– This all makes free-range chicken more expensive

## Organic chicken meat production



+ Chickens consume feed made without using artificial fertilisers or pesticides
+ Plenty of space inside and out
+ Grow even more slowly and can enjoy a longer life (usually over 10 weeks)

– Chickens consume a lot more feed than in other systems
– Requires a lot more land especially for growing the feed
– Much more expensive to produce

# How should we treat farm animals? Chicken production worksheet

Side 2

## Intensive chicken meat production

Chicken used to be an expensive luxury food, eaten occasionally. Today, chicken is one of the cheapest meats available. Consumption across the world has gone up 5-10 times.

Cheap chicken production has been made possible by keeping them indoors. Advances in management and ventilation mean that the chickens can be crowded closer together.

The chickens grow faster. Selective breeding has produced a chicken which can be killed at less than 40 days old. Chickens naturally take 120 days to become adults.

Critics of the system are concerned about the welfare of the birds. Crowding is uncomfortable and the chickens can find it difficult to get around the shed. The environment can still become hot and humid. The air can become polluted with ammonia from their droppings.

Fast growing birds are more likely to become tired. They can suffer from lameness and heart conditions. They are commonly treated with antibiotics to prevent sickness.

## Less intensive indoor chicken meat production

The picture shows chickens in an *RSPCA-Assured* system. The birds have more space than in intensive systems and have more things to do. They have straw bales which they can perch on or scratch to bits.

Natural light encourages activity and natural behaviours. Exercise is good for the birds.

Extra space makes it easier to prevent pollution from the birds' droppings. The birds are less likely to suffer hock-burns, foot-pad burns or breast blisters from the ammonia in the litter. This is good for meat quality.

Slower growing birds are naturally more active and get less tired. They walk more easily and are much less likely to suffer from lameness. Mortality levels are lower and they may be less likely to need antibiotic treatment.

The system is a compromise between welfare and price, but not everyone is satisfied. Some critics think the meat is still too expensive. Others believe the birds should be allowed outside.

## Free-range chicken meat production

Free-range chickens can roam outside during the day. They can exercise, scratch for worms and sun-bathe.

They also have extra room indoors. EU rules give free-range birds a third more space inside than in some intensive systems.

Under UK and EU regulations, free-range birds cannot be slaughtered until they are 56 days old. Some people believe they enjoy a longer and better life.

Free-range birds grow more slowly, so may suffer less from lameness and heart disease.

Free-range chickens reared to *RSPCA-Assured* standards are of slower growing breeds. These are more active which is good for their health. They may need less antibiotic treatment.

Whilst it takes very little extra land to house them, free-range chickens may consume up to a third more feed. Unless consumers buying free-range also choose to eat less meat, this can mean that more land is used to produce free-range chicken. The birds are more at risk from predators and the meat is more expensive.

## Organic chicken meat production

Organic chickens eat food which is grown without artificial fertilisers and pesticides.

The birds are allowed outside for the last third of their lives. Those reared to *Soil Association* organic standards are free-range for the last two-thirds of their lives.

Most organic birds are of slower growing breeds. They are more active and suffer less from problems such as lameness. Slower growing birds have less fat, but more healthy omega-3. Organic birds are less likely to need antibiotics.

Higher welfare systems which produce more expensive birds also generate more income for rural communities.

Most organic chickens live for at least 70 days. A longer life may be good for the chicken, but slower growth means organic chickens are likely to eat 60% more feed than intensive birds.

Yields of grain in organic systems are also lower than in intensive agriculture. It is often argued that organic production is not sustainable on a global level unless we eat less meat, especially from chickens fed on grain.

# How should we treat farm animals? Pig breeding worksheet

Do you agree or disagree with these systems of pig breeding. Are some better than others?

## Sow stalls for breeding pigs

+ Takes up less space so cheaper
+ Prevents sows from fighting over food
+ Sows can be given more or less food according to what they need

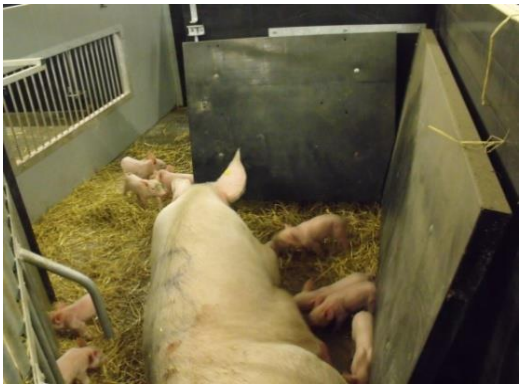
– System prevents the sow from exercising, socialising and foraging for food
– The sow cannot turn around for weeks or months on end
– The sow cannot urinate or eliminate faeces away from her lying area

## Farrowing crates for sows

+ Can help prevent sow from rolling on her young
+ Economical of space
+ Produces piglets cheaply

– Prevents mother from interacting properly with her young
– Prevents her from nest-building before birth leading to stress and risk of still-births
– Caged sows are less content and produce less milk, so more piglets may starve

## Indoor free-farrowing



+ Gives sows some freedom of movement
+ Designed to reduce piglet crushing without confining the sow
+ Better welfare can mean more milk production, so piglets grow better

– Some systems are more expensive to set up
– May require good management to keep piglets alive
– Pigs still bred indoors without access to a natural environment

## Breeding pigs outdoors

+ Sows free to perform natural behaviours
+ Cheap to set up since no buildings required
+ Extra labour required good for rural employment

– Costs more for feed and labour
– The sows plough up the ground so that nutrients run off into the water supply
– Working in all weathers difficult for workers

# How should we treat farm animals? Pig breeding worksheet

Side 2

## Sow stalls for breeding pigs

When sows are put into groups at the beginning of pregnancy, they will often fight and injure each other. This is a particular problem at feeding time, if they don't have enough space and if they are kept with other sows they don't know well. The stress can result in a sow losing an early pregnancy.

Keeping sows in solitary confinement prevents fighting. Sows can be crowded closer together to save space. Thinner sows can be given extra food. The system is easier to manage, especially for less experienced farm workers.

Confinement prevents the sow from behaving as she wishes. She can't exercise or forage for food. She cannot socialise properly.

She cannot walk away from her lying area to excrete, so she is likely to suffer from urinary infections. Lack of exercise can lead to weak muscles and bones.

The sow stall is banned in the UK. In the EU it is banned after the first four weeks of pregnancy. Keeping sows in stable groups and using stalls just at feeding times can reduce fighting.

## Farrowing crates for sows

It is common for piglets to get squashed under the weight of their large mothers. The risk is particularly high during the first three days of pregnancy after which the piglets are better at looking after themselves.

The farrowing crate is a cage designed to control how the mother moves and to reduce the risk of crushing her piglets.

The majority of farrowing sows throughout the world are kept in farrowing crates until the piglets are weaned at 3-4 weeks old. A few systems release the sow when the piglets are 3-7 days old.

Critics of the system are concerned that the sow is severely confined. She cannot perform nesting behaviour before she gives birth. This causes stress and can delay birth, leading to some piglets being born dead.

Confined sows may produce less milk. This can result in piglets dying of starvation.

There are free-farrowing systems which keep pig death rates down without using farrowing crates. These need good design and management.

## Indoor free-farrowing

Free farrowing systems are better for the sow. She can be free to make a nest before farrowing (giving birth). She is free to move around. She has some chance to stop older piglets from pestering her.

Many farmers are concerned about the risk of piglet being crushed in these systems. Not all wish to take the chance.

Free farrowing systems have to be well designed and managed to reduce this risk. For example, most systems have heated areas with bedding to encourage the piglets away from areas where they may get crushed.

The best systems do not have higher piglet death rates than the farrowing crate. The free sows are more relaxed, eat more and produce more milk. The piglets grow better and fewer starve.

The system requires good management. Changing to indoor systems which give the sows some freedom of movement costs money and some of them are more expensive to set up.

## Breeding pigs outdoors

Sows kept outdoors are free to forage in the soil. They give birth to their piglets in small huts. Plenty of bedding is provided to keep the piglets warm.

The sows are free to interact fully with their piglets. They can also wander off when they need some peace! Breeds of pigs are used who are adapted to outdoor conditions and who make good mothers.

Survival rates for piglets are similar to those in indoor systems with farrowing crates. Some years the figures are worse. Other years they are better.

The system is cheap to set up since it doesn't require buildings, though land is required.

The system is more expensive in labour. This is good for rural employment but can add to the expense of pigmeat. The sows also consume additional feed.

The system is commonly free-range only for breeding. The piglets are usually kept indoors after weaning from their mother at around 4 weeks old. In Britain the meat is often sold as "Outdoor Bred."

# How should we treat farm animals? Pigmeat production worksheet

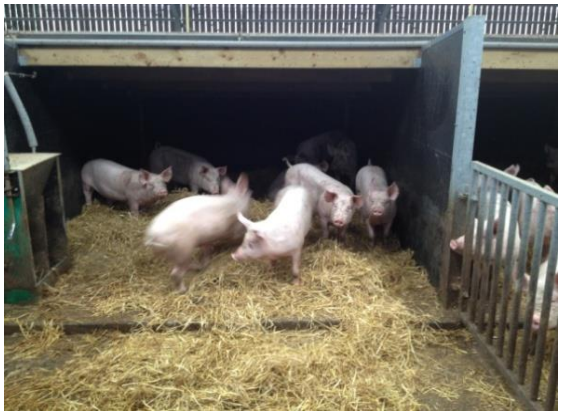
Do you agree or disagree with these systems of pig production. Are some better than others?

## Rearing pigs in slatted pens

+ Keeps pigs clean and reduces risk of salmonella
+ Easy to maintain so cheap on labour
+ Produces pigs cheaply and efficiently

– Pigs are inquisitive animals and this system gives them nothing to do
– They are likely to bite each others' tails out of boredom
– To prevent this, nearly all pigs in systems like this have the end of their tails cut off

## Rearing pigs on a straw bed



+ Straw provides a comfortable bed
+ If fresh straw is added frequently, the piglets will spend hours happily foraging through it
+ Some straw-based systems manage to keep tails on pigs without a high risk of tail-biting

– Straw is expensive and requires extra labour which adds to the cost of production
– The system can be more difficult to keep clean
– The pigs can't go outside

## Keeping pigs free-range

+ Pigs are free to go outside and play when they want to
+ Cheap to set up since no buildings required
+ Extra labour required good for rural employment

– The pigs consume additional feed
– Requires extra labour which also adds to costs
– The pigs plough up the ground so that nutrients run off into the water supply

## Keeping pigs organically

+ Piglets stay longer with their mothers so they are more used to solid food by the time they are weaned from their mothers
+ British organic piglets are kept free-range
+ They are free of mutilations eg castration, tail docking and tooth clipping

– Organic pigs consume significantly more food while they are growing
– People would have to eat less meat if it was all organic due to reduced productivity
– Organic pigmeat is much more expensive

# How should we treat farm animals? Pigmeat production worksheet
Side 2

## Rearing pigs in slatted pens

This system is increasingly popular in modern industrial production. It is considered an efficient way of producing pork and bacon.

It is easier to keep the pigs clean since their droppings fall through the slats to the pit below.

Avoiding the use of bedding material such as straw can reduce the risk of bringing in disease.

The system requires less labour and produces pigmeat more cheaply than straw-based systems.

The surface is less comfortable for lying or walking. Pigs are more likely to become lame.

The environment is barren and the lack of straw means that piglets get bored. There is a high risk of tail-biting so pigs are nearly always tail-docked in this system.

UK and EU legislation requires the provision of material such as straw and bans routine tail-docking. Slatted pens without straw are common in the UK and the EU, but fail to meet these legal requirements.

## Rearing pigs on a straw bed

Pigs like straw. It makes a comfortable bed and helps them keep warm.

Above all, they like rooting in it. It contains the occasional grain they like to eat. Actually, they also eat parts of the straw itself. Fibre from the straw reduces the risk of gastric ulcers.

As long as additional straw is frequently added, pigs can spend 20% of their time rooting through it.

Happily occupied in rooting, piglets kept on straw are much less likely to bite each others' tails. Many straw-based systems therefore manage their pigs without tail-docking.

Critics argue that straw is expensive and requires more labour to manage. It may be harder to keep the pigs clean. Microbes in the straw can cause disease.

Pigmeat from straw-based systems is slightly more expensive to produce. Despite this, the pigs don't get the chance to go outside.

## Keeping pigs free-range

Pigs are curious animals and being able to go outside gives them plenty of opportunity to explore and forage for food.

They also have plenty of space to play.

When it is cold or wet, they can go inside the shed where there is a warm bed of straw.

They are provided with water which they use to make a wallow to cool down in hot weather.

With plenty of space and things to occupy them, they are far too busy to even think of biting each other's tails. Tail docking is rare in free-range systems.

All that exercise means that free-range pigs eat extra feed. The system requires extra labour which means more rural jobs but adds to the cost of the meat.

Can we expect people on a budget to pay extra for free-range?

## Keeping pigs organically

Organic pigs are fed on a diet which has been grown without using chemical pesticides or fertilisers.

They have extra space and are weaned later. Spending longer with their mother means that they are less likely to suffer digestive problems at weaning. So, organic pigs are less likely to need antibiotic treatment.

UK and EU organic rules require the provision of bedding and an outside run. The run may be made of concrete but, if so, they must be given plenty of vegetation for foraging.

With plenty of space, bedding and forage the risk of tail-biting is low so they are not usually tail-docked. UK Soil Association rules go further. The pigs are kept free-range with access to earth and no mutilations are permitted.

Organic pigs require more feed and the meat is much more expensive to produce. Some would question whether we would have enough land to feed the world if everyone bought organic.

# How should we treat farm animals? Milk production worksheet

Do you agree or disagree with these systems of milk production. Are some better than others?

## Keeping cows indoors all year

+ Means the feed of high yielding cows can be carefully controlled
+ Helps maintain yields without loss of weight or digestive problems
+ System produces milk economically

– Cows enjoy going outside to graze, socialise and lie in groups
– Cows kept inside are more at risk from conditions such as lameness
– Why not breed cows which can maintain good health and moderate yields on grass?

## Tethering cows

+ Tethering is a traditional way of keeping cows when housed
+ It helps prevent cows from being bullied
+ Many tethered cows get daily exercise and are allowed out in summer

– Tethering prevents natural behaviours such as socialising and exercise
– Conditions are often cramped and uncomfortable
– Some tethered cows are kept tied up all day, every day. This cow is tied up all the time.

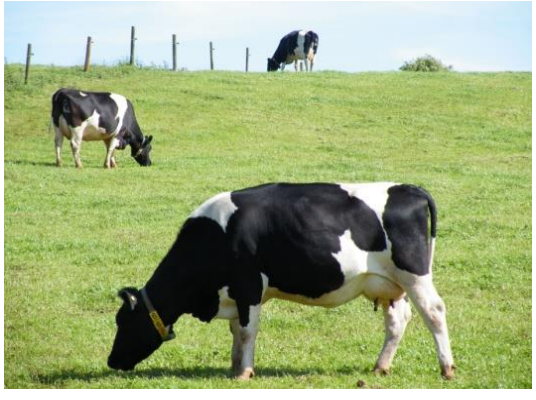
## Keeping dairy calves with Mum

+ Rearing a calf is naturally fulfilling and pleasurable for the cow
+ Calves learn social skills from their mother
+ Calves growing faster and better

– The calves will consume much of the milk
– The milk will be more expensive
– It is much cheaper to raise calves on milk substitutes containing milk by-products.

NB This is an organic farm called the "Ethical Dairy." The picture was taken in November – in summer they would be out in fields.

## Keeping cows organically



+ Organic rules state that herbivores (such as cows) must have access to pasture "whenever conditions allow."
+ Growing grass and clover improves fertility
+ Organic cows are less likely to suffer lameness

– Less intensive systems require more land to produce the same amount of milk
– Organic milk is more expensive
– On a conventional farm, you could feed more people by growing crops like wheat and rapeseed using artificial fertilisers.

# How should we treat farm animals? Milk production worksheet
Side 2

## Keeping cows indoors all year

The modern high-yielding dairy cow needs a carefully controlled diet.

If she doesn't get enough to eat, she loses weight and can become infertile. This means she can't produce another calf so she won't be able to continue producing milk. Infertile cows are sent to slaughter.

If she doesn't get enough fibre, she can suffer digestive problems. The high-yielding cow is often kept indoors to give her a carefully balanced diet rather than to leave her to eat grass which varies in quality.

Critics argue that cows enjoy the freedom to go outside. They enjoy grazing and resting together in fields where there is more space.

Systems can be devised which allow the cows both inside and out so that they can eat the balanced diet inside and then graze a bit outside.

Another alternative is to breed a cow who can stay healthy and produce milk on a grass diet.

## Tethering cows

Cows were traditionally tied up in winter. Cows which are tied up use less space, which makes for cheaper housing.

Like other forms of solitary confinement, tethering prevents aggression. The individual cows are easy to monitor and it is easy to treat sick animals.

However, the cows pay a heavy price for this extreme confinement. Natural behaviours such as exercise and social interaction are impossible whilst tied up.

The system is expensive in labour and is less often found in larger more modern farms. Cows can receive any individual treatment they need during or after milking.

Some farmers give their tethered cows daily exercise and allow them out in summer. Others are tied up all day, every day.

The system is permitted, though rare, in the UK.

## Keeping dairy calves with Mum

Dairy calves are usually separated from their mothers shortly after birth so that people can have the milk. The calves are either reared on a cheaper alternative feed or may be shot at birth.

Separation causes distress to both mother and calf.

Keeping dairy calves with their mothers allows the cows to fulfil their natural maternal instincts. Cow and calf lie together, lick each other and the calf can suckle. The calves also grow much better and learn more social skills.

One farmer who tried leaving mother and calf together noticed the cows becoming more confident. Aggression decreased, both to each other and to people. A calmness descended on the cowshed.

However, even though dairy cows produce far more milk than beef cows, the calves still drink nearly all of it. They grow really well, but to produce enough milk for people the calves would need to be kept apart for at least half the day.

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## Keeping cows organically

Organic cows are kept free-range in summer. UK and EU organic rules state that organic herbivores must have access to pasture whenever conditions allow.

Organic farms don't use artificial fertilisers on the land to maintain soil fertility. Grass plays a valuable role in mixed organic farms, helping to build up fertility. Cows eat the grass and their manure helps to fertilise the soil so that crops such as wheat can be grown in future years.

Organic cows tend to be of less intensive breeds which are often healthier and live longer.

Scientific studies have shown that lameness is much less common in organic farms. This is partly because the cows spend more time outside on grass.

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