

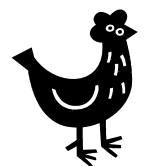
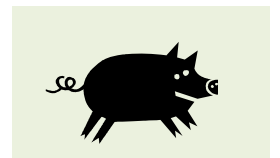
# Livestock Matters

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**A series of newsletters/bulletins to the farming community**

**In this edition.....**

**Special Considerations for  
Outdoor Pig Keeping in Guernsey**



## 2. Special Considerations for Outdoor Pig Keeping in Guernsey

There are essentially two types of commercial husbandry systems that are used for pig production; intensive indoor or extensive outdoor. Extensive outdoor pig keeping is a component of a farming system where land use is rotated between crops and pigs. The reason for this rotation was that keeping pigs on the same land for more than a year literally made the land 'pig-sick'. These systems were common on the North Downs and South Yorkshire where pigs were rotated with cereals and root crops. In the UK small scale hobby pig keepers tend to keep their pigs outside and either regularly move their pigs or run their pigs over very large areas to avoid long term damage to the soil.

There is a tradition of pig keeping within the Channel Islands and many old farm houses have granite built pig sties (porcherie) behind them and there is of course 'Bean jar'. Pigs were generally kept in the sties and fed kitchen scraps. There is little historical evidence that pigs were farmed 'outdoors' in Guernsey probably because without electric fencing they would have been impossible to contain. In the past perhaps pigs were allowed out for limited periods whilst closely supervised. A few Guernsey farmers continued to keep pigs in low numbers indoors but in recent years we have seen the arrival of outdoor pig keeping in Guernsey.



Figure 1(a). Traditional Guernsey pig-sty



Figure 1(b). Modern Guernsey pig-sty!

Most people who have recently taken up pig keeping have done so as a hobby and have developed a system which utilises small plots or disused vinery sites by creating paddocks with electric fencing with pig 'arks' for shelter.

Responsible keepers of outdoor pigs will want to ensure their pig's welfare needs are met and that they are not creating a nuisance or a threat to the islands animal health status.

## 1) Pig Welfare

The welfare of outdoor pigs depends on the selection of a suitable site, a high standard of stockmanship and the correct choice of breed. The first consideration must be the suitability of the proposed site where pigs are to be kept. From a welfare perspective site suitability includes the site itself, proposed land management systems and space availability.

### Site Selection

- Land which drains poorly and is prone to flooding or land with heavy soils is generally unsuitable for outdoor pigs.
- The soil on old vinery sites may be heavily contaminated with broken glass which can damage legs and feet which then become infected. Waterlogged soils can lead to a softening of feet making injury and infection more likely.
- Steep gradients increase the risk of run-off and soil erosion and should be avoided.
- Ideally an outdoor pig unit should be sited in an area with rainfall of less than 800 mm per year. Guernsey's average annual rainfall between 1981 and 2010 is 838.7 mm! This increases the requirement for high standards of land management in order to maintain outdoor pigs in suitable conditions in Guernsey.
- Sites with no hedges wind breaks or natural shelter from the wind increase the risk of chilling, piglets particularly, when temperatures are low and it's windy.
- Site access is an important consideration particularly in poor weather conditions because pigs must be checked at least twice daily.

### Land Management

- Pigs have a unique ability among livestock to damage soil structure because their instinct is to root with their snouts. If pigs have insufficient space or they are not regularly moved or rotated to new land the land will become 'Pig Sick'. The pigs continual sifting of the soil makes it compact and if it becomes wet it takes on 'clay like' properties. This damages the drainage and aeration of the soil combined with the pigs' manure and uneaten food results in a putrid, sweet smell. The type of bacteria that proliferate within this environment can pose a serious risk to the pigs' health. Rotation of outdoor pigs onto clean sites also avoids the build-up of parasites and their eggs within the soil.
- Wet paddocks areas can result in wasted feed because it becomes trampled into the mud. This means that it is necessary for keepers to feed increased quantities to provide the pigs with their appropriate ration.
- Straw, hay or wood chip can be used to cover wet soil and provide dry feeding areas it may also reduce erosion where the ground is bare.
- Grass cover on some sites is necessary to prevent run-off and erosion. If the grass is no longer present the pigs should be rotated to another site where grass has been established for at least 12 months. This will allow the regeneration of the grass, establishment of a binding root mat and recovery of the soil structure.
- No site should be used for outdoor pig keeping for more than one year and the site should be rested or have crops grown on it for at least two years before pigs return to the site.

Each site is likely to have different characteristics which will determine how best that land should be managed. This will include soil type and structure, slope, aspect, shelter, nitrate leaching risks, proximity to water courses and boreholes and residential property. It is therefore strongly recommended that before a site is prepared or populated with pigs' potential keepers contact the Agricultural and Environmental Advisor (234567) who will assess site suitability to keep pigs on and can advise on potential crop rotation systems that could be appropriate to implement.

## Available Space

The UK and EU organic livestock regulations provide some guidance to how many pigs you can keep relative to the total area of land you have available.

Table 1. Guide to the number of pigs that can be kept within an area.  
(exact numbers depend upon the site, soil characteristics etc.)

Type of pigs (weight)	Number of pigs per		
	Ha (10,000m <sup>2</sup> )	Acre (4,047 m <sup>2</sup> )	Vergée (1,639 m <sup>2</sup> )
<b>A sow and her litter (to 7kg)</b>	9	3	1
<b>Weaners (7–18kg)</b>	60	24	10
<b>Growers (18–35kg)</b>	28	11	4
<b>Cutters/porkers (35–85kg)</b>	18	7	3
<b>Baconers (over 85kg)</b>	16	6	2

These space allowances make provision for some of the land to be rested so it can recover from the activities of pigs and also provides an opportunity to grow some vegetables or other crops. Ultimately it is the combination of the site and its management that determines how many pigs could be kept on the site.

## Electric fences

- The operation of electric fences should be checked daily. This can be done using an electric fence tester.

Fig 2. Electric Fence Tester



## Pig Shelters

- Provision must be made on the site for the pigs to be protected from adverse weather and they must have an opportunity to lie on a well-drained area. Pigs must have access to a shelter of which there are many types including commercially available arks made of corrugated metal sheet, plastic, fibre-glass, wood or a combination of these materials. Arks should be positioned where flooding is least likely to occur and so that the entrance does not face the prevailing wind. If necessary arks could be raised to help ensure that the lying area remains dry. However in wet paddocks water and mud will be trampled into the arks. Piglets are particularly susceptible to chilling and hypothermia from wet bedding which increases their risk susceptibility to disease.
- If the paddock slopes it is important to try to create a level floor within a shelter. This reduces the risk of bedding accumulation on the downward slope which also increases the risks of overlying of piglets by the sow.
- Shelters, huts or arks must be anchored to prevent them from being moved by pigs or the wind.
- In cold weather it is important to provide extra bedding and to try to eliminate drafts by positioning the entrance away from the prevailing wind and using plastic flaps or wind breaks around the entrance, such as bales of hay or straw.

## Shade

- Shade should be provided for all outdoor pigs to minimise the risk of heat stress and sunstroke. This could be provided by trees; traditionally in Guernsey Fig Trees were planted next to sties to provide pigs shade in summer. Wallows can also reduce the effects of exposure to the sun and high temperatures. Care should be taken to ensure that wallows do not overflow causing run-off and soil erosion.



Figure 3. Typical Pig Ark in wood and galvanised corrugated steel sheet



Figure 4. Examples of pig shades.

## Isolation facilities

- Pig keepers must make provision for their pigs to be handled and closely examined. It is important to be able to isolate pigs that are potentially diseased from the rest of the herd. This both protects the herd and enables diseased individuals to receive appropriate treatment and care.

## Breed Selection

Stock selected for outdoor production must be suitable for outdoor conditions. Examples of suitable breeds are below:



Saddleback



Tamworth



Berkshire



Gloucester Old Spot

Figure 4. Breeds of pig suitable for outdoor systems

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## 2) Nuisance

Based upon 2007 figures, Guernsey has a population density of 973 people per square kilometre, which is two and a half times higher than the population density of England (387). Large areas of Guernsey environment are residential and it is important that we all show consideration for our neighbours. Any livestock close to residential areas can cause a nuisance but pigs probably have the greatest capacity to do this.

For this reason site selection must include the possibility that pig keeping may cause a potential nuisance to neighbours as well as taking into consideration pig welfare. The risk of nuisance is not simply the distance between the proposed site and residential property but factors including prevailing wind, slopes, proposed pig numbers, noise, light, land and waste management, fly and vermin control must also be taken into consideration. It is therefore strongly recommended that before a site is prepared or populated with pigs' potential keepers contact the Environmental Health & Pollution Regulator (EHPR) (711161) to assess potential nuisance issues.

If neighbours of proposed or existing pig keeping units have concerns about potential or what they consider to be actual nuisance they should contact the EHPR who has the power to resolve the situation where a nuisance is found to exist. For further information on statutory nuisances:

- Dust and smell
- Noise
- Drainage problems
- Smoke
- Light

Visit the following EHPR webpage: <http://www.gov.gg/www.gov.gg/statnuisances>

## Nitrates, Erosion and Run-off.

- The manure deposited by outdoor pigs can result in high levels of nitrate and phosphorus building up in the soil. Nitrate and phosphorus readily leaches into dourits, streams or down into groundwater's where it can cause pollution of drinking water sources. Outdoor pig paddocks should be located at least 10m from any water course or 50m from a spring, well or borehole that supplies water for human consumption, or for use in farm dairies.
- Phosphorus can upset the ecological balance in surface waters, causing excessive growth of aquatic plants, notably algae. This can result in a serious lack of oxygen, leading to the death of aquatic creatures and some algae also produce toxins which are dangerous to both humans and animals. Similarly, nitrate passing down rivers and into the sea can also upset the balance of marine and estuarine ecosystems.
- Pig sick land has poor drainage so rain tends to run off, particularly if the land is sloped, taking particles of soil with it. This resulting soil erosion can silt up dourits, streams and drains which can cause flooding. Run off can result in fresh pig manure being carried and contaminating public highways or neighbouring private gardens which may provide an infection hazard for humans and other animals'. Typically a fattening pig might produce up to 5kg (or litres) of manure each day and breeding sows much more when they are rearing piglets, so there will be a substantial manure loading in the field and the potential for manure run off.

## Vermin

- Rats are more likely to congregate close to potential food sources. Uneaten food in pig paddocks, which has possibly been trampled into mud, will draw rats to pig paddocks. Once rats have arrived at the site they may attempt to break into food stores and food bins. Rat infestations may begin to affect neighbouring properties and must be dealt with according to Guernsey Law (Destruction of Rats Ordinance (Alderney), 1991; Public Health Ordinance, 1936).
- Pig keepers who are producing food commercially, 'food business operators' (FBO), must register with the EHPR and comply with their directions.

## 3) Animal Health

### Feeding of Waste Food to Pigs

Today the food that we eat could have travelled great distances and brought with it animal diseases from all over the world. It was the feeding of waste food to pigs that was the source of the virus in the 2001 Foot & Mouth Disease outbreak in the UK. Guernsey has regulations regarding the feeding of waste food to livestock in the form of The Waste Food Ordinance of 1987.

This makes it an offence to feed pigs with:

- a) meat, bones, blood, offal or any other part of the carcass of any animal or bird, or any product derived therefrom,
- b) hatchery waste, eggs or eggshells,
- c) any broken or waste foodstuffs, including table or kitchen scraps, which contain or have been in contact with anything mentioned in (a) or (b).

## Contacts

If you have any questions regarding the following please contact the person indicated:

Pig Welfare	David Chamberlain States Veterinary Officer	234567
Site suitability	Andrew Casebow Agricultural and Environmental Advisor	234567
Nuisance & FBO	Environmental Health & Pollution Regulator	711161

## Further Reading

- A Soil Association guide to small scale pig keeping  
<http://www.soilassociation.org/LinkClick.aspx?fileticket=wHA6qvWcNLU=&tabid=204>
- Defra, Code of Recommendations for the Welfare of Livestock: Pigs  
<http://www.defra.gov.uk/publications/files/pb7950-pig-code-030228.pdf>
- MAFF, Site suitability for Outdoor Pig Farming  
<http://adlib.everysite.co.uk/resources/000/025/548/pigsite.pdf>
- Destruction of Rats Ordinance (Alderney), 1991  
<http://www.guernseylegalresources.gg/CHttpHandler.ashx?id=70468&p=0>
- Public Health Ordinance, 1936  
Part 2. Article V, Powers of an authorised officer to specify methods of abating particular nuisances. 1, (b). 'Vermin'.
- Waste Food Ordinance, 1987  
<http://www.guernseylegalresources.gg/CHttpHandler.ashx?id=66910&p=0>
- FAWC, Report on the welfare of pigs kept outdoors  
<http://www.fawc.org.uk/reports/pigs/fawcptoc.htm>