

Introduction to pig production in UK

Pig production in the United Kingdom is concentrated in large herds with around 80 per cent of **pigs** kept in herd sizes of over 1000 head. Over the last 10 years the national breeding herd has contracted to around 300,000 **sows**. However, production has declined to a lesser extent as the number of pigs finished per sow and the daily **liveweight** gain have both improved with genetics and improved husbandry techniques.

Pigs tend to be kept in units which specialise in one particular aspect of the pig production system i.e. breeding, rearing, growing or finishing units.

In 1999, a ban on stalls and tethers in response to demands from consumers insisting on higher levels of **animal welfare** was introduced in the UK in advance of any other EU country. Breeding stock and technology have been developed for systems that allow for loose housing of groups of sows in straw yards. The introduction of new welfare legislation also led to an increase in the number of outdoor breeding units which had a reduced capital investment requirement.

Breeding, types of animals and main breeds

There are 13 established pedigree pig breeds within the UK herd. Details of individual breeds are on the [British Pig Association's website](#). The most popular are British Landrace and Large White.

Hybrid vigour is achieved when a Landrace/Large White crossed female is bred with either a purebred Landrace or Large White, resulting in an increased number of stronger faster-growing **piglets**. A Large White **sire** produces fast growing **lean carcasses** for fresh **pork** production whilst the demand for bacon carcasses has led to the development of **terminal sire** Landrace lines. Duroc crosses are used extensively in **outdoor pig** breeding units producing offspring better able to handle UK weather conditions, winter and summer.

Mating – natural and AI

Replacement females to the breeding herd can either be home bred, bought as weaner **gilts** at 30kg (or 70 days old) or bought at 150 days old (or 100kg). Replacement gilts are selected for their genetic potential for growth and efficiency, sound feet and legs and the number, conformation and spacing of functional teats.

Gilts reach sexual maturity at around 170 days old. Early puberty can be encouraged through close contact with a mature **boar** (entire male pig over 10 months old) or hormones. The gilt has a 21-day cycle during which she is on heat for a period of 16 to 48 hours, ovulating at about two-thirds of the way through that heat period. Hormones can be used to synchronise the heats of gilts which are already cycling.

Throughout her useful productive life a sow will typically produce 6 litters in total. In order to maximise the potential litter size of a gilt it is preferable to wait until her second or third heat before mating. A sow should be in good condition and put on increased feed rations (flushed) or allowed to feed freely (**ad libitum**) 14 days prior to mating. There is no set time of the year in which piglets are born.

Mating can be achieved by using a boar or artificial insemination (AI). To improve rates of conception and maximise litter size the sow must be calm. Once serviced the female should be returned to its usual social grouping. 10 to 12 days after mating the embryos start to develop, although factors such as high temperatures, over feeding and illness can cause the pregnancy to terminate. The gestation period is 115 days (3 months, 3 weeks and 3 days).

Production cycle

Youngstock and weaning

The average litter size in GB is 11.9 piglets, although because of the incidence of stillborn and piglet mortality the average number reared per litter is 9.8 piglets. On average sows rear 21.3 piglets per year.

A sow in full milk production requires large volumes of fresh drinking water, averaging around 22 litres per day plus 8 to 10 kg of an energy and protein rich diet to meet the needs of her rapidly growing piglets. Litter size can be balanced by fostering piglets from larger litters to sows with smaller litter sizes thereby reducing stress on both piglets and sows.

Piglets are usually weaned at around 4 weeks old weighing 6 to 7kg. They have access to creep feed before weaning to enable them to

acclimatise to the change in diet. It is possible for a piglet to reach a target weight of 30kg by 10 weeks old.

Younger pigs (weaners) may be traded between breeding units and finishing units. This would normally take place when they are around 7 kg (breeding) or 35 kg (finishing) liveweight.

The majority of male pigs produced in Britain for meat production are not castrated. Although there are obvious welfare benefits, the main reason for leaving boars **entire** is that they are more efficient in converting feed to meat than castrated males as they are leaner and faster growing.

Feeding and fattening

Feed costs make up 70 per cent of the production costs within the growing and **finishing** stage of pig production. Pigs are omnivorous animals and whilst outdoor pigs will graze grass it is insufficient to provide their complete dietary requirements. Normally pig rations comprise cereals, protein, minerals and vitamins in a compound form.

The target is to achieve 100kg liveweight at 140 days old at a food conversion ratio of 2.4kg feed intake to 1kg liveweight gain. On average growing/finishing pigs consume 1.85kg per day plus 5 litres of water. Feed can be provided on an **ad lib** basis up to around 50-60kg liveweight and then on a more restricted basis to prevent a disproportionate growth of **fat**.

Growing pigs in indoor system



Source: MLC

In order to optimise lean muscle growth diets should contain the correct balance of lysine to digestible energy. As pigs get older and heavier the amount of protein relative to dietary energy required for growth decreases and this offers farmers an opportunity to feed cheaper diets.

Age of slaughter

The majority of commercially produced pigs sold directly to abattoirs are valued on a deadweight basis when they have reached a specific weight. The exceptions to this are cull sows and boars (breeding animals that are no longer commercially viable). The current weight ranges and approximate ages at which animals are sold are shown in the table below.

Category	Typical deadweight (kg)	Typical liveweight (kg)	Approximate age¹
Weaner	N/A	7	21-28 days
Weaner/store	N/A	35	84 days (12 weeks)
Porker	53	72	135 days
Cutter	64	86	150 days
Bacon/clean pig	72	95	160-180 days
Heavy pig	85	110	175-200 days
Cull sow	160	N/A	N/A
Cull boar	180	N/A	N/A

¹Age at target slaughter weights may vary according to production system and is not used as a criteria for selecting pigs for slaughter

For more information:

Services, publications and websites

- [BPEX Technical Information](#)

[Pig Research & Development](#)

[Pig Health](#)

- [Pig Environmental Issues](#)

[Pig Practical Advice](#)

[Defra Codes of Recommendations for the Welfare of Livestock - Pigs](#)

- [Farm Animal Welfare council Reports](#)

[National Pig Association](#)

[British Pig Association](#)