Heat stress (indoor herds)

Heat stress is caused when a pig’s body temperature rises above certain limits; in these circumstances, the pig will first increase its respiration rate in an attempt to keep cool, then search for environmental opportunities for cooling, ie wallowing, soiling pen and lying in urine. If the pig cannot cool itself sufficiently it will collapse and, in the worst scenario, die.

Pigs subjected to high temperatures will have reduced growth rates (by up to 50g/d) and, in the breeding herd, farrowing rates could decline by as much as 25%, with litter size showing a small drop as well.

**BUILDINGS**
- Check roof insulation, it deteriorates with time. Good insulation will give both summer cooling and winter warming benefits to welfare and production.
- Thermal imaging can be used to map heat energy loss from pig buildings. AHDB Pork is able to provide this service, contact your regional KE Manager if you are interested.
- If heated creeps are used, they should be enclosed and insulated to minimise heat loss into the farrowing house.
- The temperature of creep areas should, ideally, be controlled and adjusted relative to the age and health of the piglets.

**VENTILATION**
- Ensure there are enough fans for the size and number of pigs housed; consider using supplementary fans for large pens which are reliant on natural ventilation.
- Clean and maintain fans and carry out regular checks between every batch, or at least quarterly, to ensure they are working properly.
- You can check how air is moving using a smoke plume.

**ALARMS & EMERGENCY EQUIPMENT**
- Fit and test alarm systems that warn of rising building temperatures.
- Make sure there is adequate provision for emergencies (eg power failure) to prevent unnecessary pain or distress to pigs.
- Check that alarms and generators are in good working order and that all staff are aware of emergency procedures and contingency plans.

Heat stress must be avoided in order to prevent unnecessary suffering and reduced productivity.

An example of poor roof insulation that is in need of replacement.
**WATER**

**Boars**

- Heat stress tends to reduce the libido of boars and can reduce the viability of semen for up to eight weeks post heat stress.
- Maintain good hygiene, especially where boars are kept in an insulated container (16-18°C) until required for insemination and that they are shielded from direct sunlight.

**Sows**

- Where possible, serve at either end of the day when it will be cooler.
- Maintain good hygiene, especially where sows are being served.
- Keep records of heat on your calendar and remember to check semen quality for up to eight weeks after the last period of heat stress.

**Creep areas**

- Check water availability and flow rate during peak demand; the flow rate should be 2–2.5 l/minute.
- Check trough hygiene at every feed as food can become stale and rancid very quickly.
- Check water quality, availability and flow rate during hot periods.
- Ensure pigs have access to a supply of cool clean water at all times.

**Creep feeders**

- Use foggers or misters if necessary to enable observation of piglets.
- Ensure that doses are refrigerated and kept in an insulated container (16-18°C) until required for insemination.

**LACTATING HERD**

- Feeds twice a day and increase to three times a day midway through lactation, the larger meal in the evening.
- Ensure piglets do not get wet.
- Wet the sows' necks with cool water; however, do not overheat the sows.
- To help keep sows cool, it may be helpful to wet the sow's necks with cool water, however, do not overheat the sows.

**BREEDING HERDS**

- Check trough hygiene at every feed as food can become stale and rancid very quickly.
- Check water quality, availability and flow rate during hot periods.
- Ensure pigs have access to a supply of clean water at all times.

**DRY SOW HERO**

- Heat stress can bring about a deficiency of the hormones needed to support pregnancy, so ensure that pigs are able to lie away from each other.
- Where possible, make an area of wet concrete available for sows to lie on warm straw bedding, and provide shade if necessary.

**GROWER AND FINISHER HERDS**

- Check trough hygiene at every feed as food can become stale and rancid very quickly.
- Check water availability and flow rate during peak demand; the flow rate should be 2–2.5 l/minute.
- Check water quality, availability and flow rate during hot periods.
- Ensure pigs have access to a supply of cool clean water at all times.