H21 – Temperature strategy

Location of sensor.

Wean-to-finish pen. Cover with a front edge and minimal gap between the floor and the cover. As the pigs grow, the cover is gradually raised.

The temperature strategy depends on the layout of the pig facility and the ventilation principle

1. The temperature sensor must be placed in a representative location within the housing, as close to the animals as practically possible. Remember, there must always be pigs in the pen beneath the temperature sensor.
2. If the sensor is affected by a heat source or air intake, it can, as an emergency solution, be shielded with a PVC pipe or similar.
3. The outdoor sensor should be positioned on the north side of the building and as close to the eaves as possible, so it is not influenced by sunlight.
4. The smallest pigs at weaning have the highest demands on the microclimate in the pen. Ideas that can help create a warmer microclimate include:
   - Lower cover height.
   - Bedding and/or straw board.
   - Temporary curtain made of plastic or paper.
   - Front edge extended all the way to the floor across part of the pen's width.
   - Front edge extended all the way to the floor with small openings for the pigs (dog-hole plate).
   - Heat lamps under the cover.
5. The smallest pigs must not be placed in end pens, under ventilation outlets, or in pens with temperature or humidity sensors.

Be aware of

- The temperature sensor must always be positioned above pigs. The pen must not be empty. See photo.
- The temperature sensor in the facility must not be directly affected by a heat source or air intake.
- In special cases, the outdoor temperature sensor (on buildings not facing directly east-west) should be shielded with a plate or similar to avoid exposure to sunlight.

H21 – Temperature strategy

Proposed temperature strategies

IMPORTANT: Always observe the pigs; the temperature under the cover is only a guideline.

Weaned pigs, partially solid floor

Day	1	7	14	21	28	35	42	49	56
Weight, kg	**5,5**	**6**	**7**	**8,5**	**11**	**15**	**18**	**25**	**30**
Temp. under cover °C	31-32	30-31	29-30	28-29	27-28	26-27	25-26	22-23	21-22
Floor under cover °C	32	32	32	32	32	Off	Off	Off	Off
Desired room temp.*, °C	25-26	24	24	23	22	21	20	19	18
Desired humidity**, %	60	61	61	62	63	64	70	71	72

*Room temperature must be adapted to reach the desired temperature under the cover.
**Caution: The less humidity required, the more heat the facility consumes.

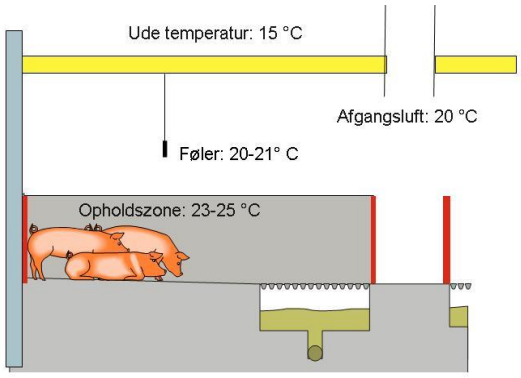
Finishers, **partially solid floor**

Weight, kg	25	30	40	50	60	70	80	90	100
Diffuse air intake**, °C	18	17	16	16	15	14	14	13	13
Jet ventilation, °C	20	20	19	18	17	16	15	15	15

Finishers, **fully drained floor**

Weight, kg	25	30	40	50	60	70	80	90	100
Diffuse air intake**, °C	20	19	18	18	17	16	16	15	15
Jet ventilation, °C	21	20	20	19	19	18	18	18	18

** Also includes combi-diffuse facilities.



When selecting a temperature strategy and setting, you should be mindful of the temperature conditions in the facility and the pen.

With a normally dimensioned ventilation system, an outdoor temperature of 15 °C will typically result in an exhaust air temperature and sensor reading of around 20 °C. The temperature in the pigs' resting zone is somewhat higher. In diffusely ventilated facilities, the temperature in the pigs' lying area is typically 3–5 °C higher than the temperature measured at the sensor. Closed fixtures result in higher temperatures. The temperature in the pigs' lying area can easily be measured using an infrared thermometer. The measurement should be taken on the fixture directly above the pigs' height.