PPILOW
Poultry and Pig Low-input and Organic production systems' Welfare

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On-farm hatching possible with radiant heaters: here are the tips

On-farm hatching of chicks is developing rapidly in European countries. This practice is based on transferring embryonated eggs to poultry barn, three days before hatching, giving the chicks direct access to feed and water, without the stress associated with hatchery and transport. The main challenge for farmer is to maintain a uniform shell temperature around 36-37°C (97-99°F) for the last 3 days of incubation, necessary for the chick proper final development. Ambient temperature is fairly well controlled with ambient heaters, but what can be done on farms equipped with localized heating?

Here are the tips

- For a 5KW radiant heater, the optimum settings are to place the radiant at a height of 2.20 m with a set point of between 34 and 35°C, and a probe placed on the eggs (automatic regulation) and about forty centimetres above the heater. If the heaters are more powerful or installed at a height of less than 2.20 m, the eggs must be kept away from the heating source. If the areas on the floor between 2 radiant heaters are close, the emitted heat adds up in these areas, causing egg overheating.

- Litter recommendations: The litter must provide, for eggs, a barrier against drafts and cold. So, for poultry barn on clay floor, minimum 12 cm thickness of crushed straw litter is required. To avoid draught on the egg surface (cooling), check the tightness of hatches giving access to the outside area and bring up litter in front of the openings.

Hatching performance was comparable with the hatchery, and chick quality, growth and behaviour improved.

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