Livestock Industry Facilities and Environment: Swine Cooling Methods—Stirring Fans

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Swine Cooling Methods -
**Stirring Fans**

**Description:** Stirring fans are used to increase the air flow across animals during hot weather or to reduce temperature stratification in ventilated rooms. Stirring fans may be either the basket type or the ceiling fan type. Both have distinctive uses.

**Probable Uses:**
- For cooling
  - Gestation and Breeding
  - Finishing
- For temperature stratification
  - Farrowing
  - Nursery

**Advantages:**
- Relatively simple
- Low cost
- Can target areas
- Effectively cools animals, especially when used with water cooling

**Disadvantages:**
- Placement is not a certainty

**Design Information**

Basket-type stirring fans, figure 1, are generally used to circulate air around animals that are susceptible to heat stress or to de-stratify the air. During a cooling situation, the fans are pointed slightly downward and directly on the animals for large animals. During winter the fans are aimed slightly upward. Space fans so they are no more than 25 times the fan diameter apart. Stirring fans are generally the first cooling stage to be switched on at 80°F or when animals show the first signs of discomfort.

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Paddle type stirring fans, figure 2, are generally used in situations in which a high ceiling is present or where solid pen dividers are used. These fans are good for directing air down into pens that cross-flowing air would not reach. They are generally spaced over pen partitions so one fan services two pens.

**Further Information:**
For further information see “Heating, Cooling and Tempering Air for Livestock Housing”, MWPS-34. This 47 page handbook is available for $6 plus handling from county Extension offices or by calling 1-800-562-3618.