1. Use approximately 80°F sink temperature at farrowing. Lower gradually to 70°F when pigs are 3 weeks old. When pigs move to nursery area, have same condition as in farrowing unit. Approximately 20°F lower than nursery area in last 2 days in nursery area is equal to conditions in finishing unit.

2. Use thermostat with a weep hole in 1 foot of capillary tube. Install 3/4-inch, or larger, conduct so that one end expands into heated area of floor in desired location for sensing the floor. Insert sensing bulb in conducto. Install one thermostat for each 4 to 6 pens. To calibrate thermostat, which indicates temperature inside sink instead of at surface, adjust thermostat to desired surface temperature, measure surface temperature with thermometer faat on floor.

3. Hot-water heating system, installed in the floor:
   a. Use 1/4-inch copper, wrapped in a black, iron pipe (not galvanized).
   b. Maximum length of each unit is 200 feet.
   c. Cover pipes with a 3 inches of concrete. Do not use stucco for fill.
   d. Input of 10 gal per hour per foot of pipe should maintain a floor temperature over pigs of 60°F, with 70°F water. Circulating pump must pump 4 gallons per minute for each 10,000 lb of hour. Each of 40 gal. -- 2000 per hour output of boiler as hot water heater required. A 30-gallon domestic gas water heater has an output of about 250 gal per hour. Consult your heating contractor about equipment.

4. Electric heating cable in the concrete floor:
   a. Use a switch on each zone or breeder area.
   b. Use approximately 400 watts per pen or stall.
   c. Do not electrify any plumbing heating cable.
   d. Immerse cable 2 inches deep in concrete and space uniformly. Cable will burn out at too high a current.
The WATER SYSTEM should be the non-back-siphoning type. Choose a type that has an easily removed plug for rapid cleaning for one inside the building.

WINTER VENTILATION: Minimum for capacity is 20 to 25 cubic feet per minute per sow and litter, or about four air changes per hour. Capacity for providing up to six air changes per hour is desirable during cold weather. Thermostatic controls are required. In addition, time clocks or humidifiers are used with heat-air space heating to prevent competitive cycling of the fans and furnace. Two-speed fans provide flexibility for varying conditions of weather. Provide air inlet through ceiling along outside wall as shown in the plan. Select fans on basis of rated capacity of air rather than rated air delivery. Use only about one-fourth of the total opening for WINTER and balance their intake to defrost air down along wall. Keep creep area under the inlet may be covered with hinged panel if there is not too much draft.

SUMMER VENTILATION: Provide fan capacity for 15 to 20 air changes per hour. Fans can be mounted in the window opening above the end doors, or in the sidewalls to blow into the building. Air inlets in the ceiling become exhaust ports and must be fully open. The cold ends of the building must be equipped with large louver (2 sq ft, free opening, each wall), covered with sheet metal to keep out birds. Spray fogging may be provided.

MANAGEMENT SUGGESTIONS

CAPACITY: 80 sows per year. 2-4 sow herds, each farrowing twice a year.

FARROWING: Sows to holding floor, washed in service room, familiarized with stalls. First 2 sows into stalls. Make 2 sow and litter to each nursery pen as more stalls are needed.

NURSING: First sows plus litter in pens. Last sows plus litters in stalls. Pens feed outdoors twice daily. Small pig feeders in creep areas.

WEANING: When pigs are 3-5 weeks old, remove sows and creep feeders. Pigs have access to feeding floor, and sow feeders.

FINISHING: Pigs to finishing facilities at 60-50 pounds. Allow 1 week for cleaning before second sow herd starts to farrow.