

Ministry of Agriculture, Food and Fisheries



Agricultural Building Systems Handbook

# SWINE HOUSING AND EQUIPMENT

## COMPLETE INSTRUCTIONS

CPS PLAN M3000 REVISED 86:04

In Canada, the trend in swine production is toward totally enclosed, well-insulated buildings with controlled ventilation. Pigs have specific temperature and space requirements depending on the age and stage of growth. For this reason, buildings are usually partitioned into rooms where each age group can be housed in the best possible environment.

Canada Plan Service swine plans show the various components that satisfy the needs of each age group or each part of the production cycle.

#### **BREEDING-GESTATION**

Dry sows are confined either in group pens or in individual pen stalls for much of the gestation period (16 weeks). Pen stalls prevent fighting and competition for feed during the breeding-gestation period. To improved breeding, intermix boar pens with sow pens to promote sexual stimulation by sight, hearing, smell and touch.

#### FARROWING

Standard-size farrowing pens (with a crate to confine the sow and a creep area for the piglets) can be fitted into one-room systems for small herds, or into multiple-room systems for large operations.

Farrowing barns must have good pen drainage and a separate warm creep area to each pen to ensure the piglets' comfort without overheating the sow.

#### WEANLING

In small operations the weanling area may be a part of the farrowing barn. In larger operations, one or several specialized weanling rooms let the producer maintain the warmer environment preferred by the weanling pig.

Weanling pigs must be kept especially clean to maintain good health. The traditional way to do this was to use ample bedding and clean the pens frequently. Now, pens with slotted, perforated or mesh floors (without bedding) are used to keep pigs clean enough at this stage.

#### **GROWING-FINISHING**

Growing and finishing pigs develop better housekeeping habits in long narrow pens. Pens can be as small as  $1.5 \times 4.8 \text{ m} (5 \times 16 \text{ ft})$  for 20 growers or 10 finishers. Larger pens and correspondingly larger groups may be used but the pen length must remain at least 2.5 times the width. Pigs stay cleaner on totally slotted floors, but if only part of the pen is slotted, they suffer fewer foot injuries and make better gains on less feed. The pigs' dunging habits also improve if solid pen partitions surround three sides of the sleeping areas and open partitions or gates divide the dunging-watering areas.

DEVELOPED BY CANADA PLAN SERVICE

### SPACE REQUIREMENTS

TABLE 1 gives general recommendations for sows, weaner pigs. For each boar provide a pen area of  $3.7m^2$  (40 sq ft). Separate breeding pens should have a minimum rectangular dimension of 2.4 m (8 ft).

Feediot -hards-unced area         2.3 m² (25 sq ft)/sow 0.4 ha (1 ac)/25 pgs         0.75 m² (8 sq ft)/pig 0.4 ha (1 ac)/25 pgs         1.9 m² (20 sq ft)/pig 0.4 ha (1 ac)/10 pgs           Confinement housing -Solid floor pen area         1.8 m² (20 sq ft)/sow under 180 kg (400 lb)         *0.3 m² (3 sq ft)/pig 0.4 ha (1 ac)/25 pgs         *0.35 m² (3.8 sq ft)/pig under 45 kg (100 lb)           Solid floor pen area         1.8 m² (20 sq ft)/sow under 180 kg (400 lb)         *0.3 m² (3 sq ft)/pig 0.4 ha (1 ac)/25 pgs         *0.35 m² (3.8 sq ft)/pig under 45 kg (100 lb)           Solid floor pen area         1.8 m² (20 sq ft)/sow under 180 kg (400 lb)         *0.3 m² (3 sq ft)/pig 0.4 ha (1 ac)/25 pgs         *0.3 m² (3 sq ft)/pig 0.4 ha (1 ac)/25 pgs           Solid floor pens         1.5 m² (16 sq ft), sow under 180 kg 1.9 m² (20 sq ft), sow under 180 kg 1.9 m² (20 sq ft), sow under 180 kg         *0.2-0.3 m² (2.2-3.2 sq ft)/pig 0.4 ha (40% preferred)           Solid d area         25-32 mm (1-1.25 in,)         30-100%, sow under 180 kg         30-100%, (40% preferred)           Solid d area         25-32 mm (1-1.25 in,)         30-100 mm (1.5-4 in,)         38-200 mm (1.5-8 in,)           Partition height         0.4 sm (18 in,) wde         0.7 m (28 in,)         0.9 m (36 in,), vertical rods           Solid d floor (18 in,) wde         0.4 mm (18 in,) wde         0.33 m (13 in,) pig         0.33 m (13 in,) pig           Feed through height         0.4 m (18 in,) wde         0.3 m (13 in,) pig <td< th=""><th>Accommodation</th><th>Sows</th><th>Weaners under 25 kg (50 lb)</th><th>Feeders 25 – 100 kg (25 – 220 lb)</th></td<>	Accommodation	Sows	Weaners under 25 kg (50 lb)	Feeders 25 – 100 kg (25 – 220 lb)
-Pasture area         0.4 ha (1 ac)/2 sows with litters         0.4 ha (1 ac)/25 pigs         0.4 ha (1 ac)/10 pigs           Confinement housing         -Solid floor pen area         1.8 m² (20 sq ft)/sow under 180 kg (400 lb)         *0.3 m² (3 sq ft)/pig         *0.3 m² (3 sq ft)/pig         *0.3 m² (3 sq ft)/pig         under 45 kg (100 lb)         *0.5 m² (5 k sq ft)/pig         under 45 kg (100 lb)         *0.5 m² (5 k sq ft)/pig         @dt-67 kg (100 -150 lb)         *0.5 m² (5 k sq ft)/pig         @dt-67 kg (150 lb)         *0.7 m² (7 sq ft)/pig         over 67 kg (150 lb)         *0.7 m² (7 sq ft)/pig         over 67 kg (150 lb)         *0.7 m² (7 sq ft)/pig         over 67 kg (150 lb)         *0.7 m² (7 sq ft)/pig         over 67 kg (150 lb)         *0.7 m² (7 sq ft)/pig         over 67 kg (150 lb)         *0.7 m² (7 sq ft)/pig         *0.7 m (1.7 sq ft)/pig         <	Feedlot	_	_	
Confirmment housing -Solid floor pen area         1.8 m² (20 sq ft)/sow under 180 kg (400 lb)         *0.3 m² (3 sq ft)/pig under 45 kg (100 lb)         *0.3 m² (3.8 sq ft)/pig under 45 kg (100 lb)         *0.5 m² (3.4 sq ft)/pig under 45 kg (100 lb)         *0.5 m² (3.4 sq ft)/pig under 45 kg (100 lb)         *0.5 m² (3.4 sq ft)/pig under 45 kg (100 lb)         *0.5 m² (3.4 sq ft)/pig under 45 kg (100 lb)         *0.5 m² (3.4 sq ft)/pig           Slotted floor pens				
-Solid floor pen area       1.8 m² (20 sq ft)/sow under 180 kg (400 lb)       *0.3 m² (3 sq ft)/pig       *0.3 m² (3 sq ft)/pig       under 45 kg (100 lb)         under 45 kg (100 lb)       *0.5 m² (3.4 sq ft)/pig       under 45 kg (100 lb)       *0.5 m² (5.4 sq ft)/pig         Solide floor pens       -       *0.2 m² (2.2-3.2 sq ft)/pig       under 45 kg (100 lb)         -Total area/pig       15 m² (16 sq ft), sow order 180 kg       *0.2 m² (2.2-3.2 sq ft)/pig       over 67 kg (150 lb)         -Total area/pig       .       .       .       30-100%       30-100% (40% preferred)         -Slotked area       .5-00% of pen       .010% of 04 or 1 in.)       25-32 mm (1-1.25 in.)       30-100 mm (1.5-4 in.)       38-200 mm (1.5-8 in.)         -Slot width       .25-32 mm (1-1.25 in.)       30-100 mm (1.5-4 in.)       38-200 mm (1.5-8 in.)          -Slot width       .38-200 mm (1.5-8 in.)             -Slot width       .25-32 mm (1.1.25 in.)             -Slot width       .38-200 mm (1.5-8 in.)             -Self-leeder length       (not recommended)             -Mithight eed through to: <td></td> <td>0.4 ha (1 ac)/2 sows with litters</td> <td>0.4 ha (1 ac)/25 pigs</td> <td>0.4 ha (1 ac)/10 pigs</td>		0.4 ha (1 ac)/2 sows with litters	0.4 ha (1 ac)/25 pigs	0.4 ha (1 ac)/10 pigs
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		$1.8 \text{ m}^2$ (20 sq ft)/sow upder 180 kg (400 lb)	$*0.3 \text{ m}^2/3 \text{ sq ft}/\text{pig}$	$*0.25 m^2 / 2.9 ar #)/nim$
Slotted floor pens         -Total area/pig         1.5 m² (6 sq ft), '0.7 m² (7.5 sq ft)/pig over 67 kg (150 lb)           Slotted floor pens         -Total area/pig         1.5 m² (16 sq ft), sow under 180 kg 1.9 m² (2.0 sq ft), sow under 180 kg         *0.2-0.3 m² (2.2-3.2 sq ft)/pig           -Slotted area         35-100% of pen         30-100%         30-100% (40% preferred)           -Slotted area         35-100% of pen         30-100%         30-100% (40% preferred)           -Slott width         25-32 mm (1-1.25 in.)         9 or 25 mm (0.4 or 1 in.)         25-32 mm (1-1.25 in.)           -Slott width         25-32 mm (1-1.25 in.)         9 or 25 mm (0.4 or 1 in.)         38-200 mm (1.5-8 in.)           -Slott width         25-32 mm (1-1.25 in.)         9 or 25 mm (0.4 or 1 in.)         38-200 mm (1.5-8 in.)           -Slott width         0.45 m (18 in.)         38-200 mm (1.5-8 in.)         0.7 m (28 in.)         0.7 m (28 in.)           -Slott width         0.45 m (18 in.)         0.7 m (28 in.)         0.5 mm (3 in.)/pig         1.0 m (3 in.)/pig           -Slott width         0.45 m (18 in.) wide         0.33 m (13 in.)/pig         0.33 m (13 in.)/pig           Self-feeder length         (not recommended)         0.5 m (21 in.)/pig         33 m (13 in.)/pig           -Length field through length         0.45 m (18 in.) wide         0.33 x 1.5 m (13 x 60 in.)      <			0.5 m (5 sq tt)/pig	
Slotted floor pens				
Slotted floor pens Total area/pig         1.5 m² (16 sq ft), sow under 180 kg 1.9 m² (20 sq ft), sow over 180 kg         *0.2-0.3 m² (2.2-3.2 sq ft)/pig           -Slotted area         35-100% of pen (100% preferred)         30-100% (40% preferred) (100% preferred)           -Slott darea         35-100% of pen (100% preferred)         30-100% (40% preferred) (100% preferred)           -Slott width         25-32 mm (1-1.25 in.)         9 or 25 mm (0.4 or 1 in.)         25-32 mm (1-1.25 in.)           -Slott width         25-32 mm (1-1.25 in.)         9 or 25 mm (0.4 or 1 in.)         25-32 mm (1-1.25 in.)           -Slot width         25-32 mm (1-1.25 in.)         9 or 25 mm (0.4 or 1 in.)         25-32 mm (1-1.25 in.)           -Slot width         25-32 mm (1-1.25 in.)         38-100 mm (1.5 4 in.)         38-200 mm (1.5 4 in.)           Partition height         **1.1 m (43 in.)         0.7 m (28 in.)         0.9 m (36 in.), vertical rods 1.0 m (39 in.), solid panels           Self-feeder length         (not recommended)         0.45 m (18 in.) sow         0.25 m (10 in.)/pig         0.33 m (13 in.)/pig           Individual feeding stall         0.45 m (18 in.) wide         0.33 x 1.5 m (13 x 60 in.)         0.33 x 1.5 m (13 x 60 in.)           Gestation tie sial         (not recommended)				
Slotted floor pens       -Total area/pig       1.5 m² (16 sq ft), sow under 180 kg 1.9 m² (2.2-3.2 sq ft)/pig         -Total area/pig       1.5 m² (16 sq ft), sow under 180 kg 1.9 m² (2.2-3.2 sq ft)/pig       30-100% (40% preferred)         -Slotted area       35-100% of pen       30-100% preferred)       30-100% (40% preferred)         -Slot width       25-32 mm (1-1.25 in.)       9 or 25 mm (0.4 or 1 in.)       25-32 mm (1-1.25 in.)         -Slot width       38-200 mm (1.5-8 in.)       0.7 m (28 in.)       0.9 m (36 in.), vertical rods         -Slot width       38-200 mm (1.5-4 in.)       0.7 m (28 in.)       0.9 m (36 in.), vertical rods         -Slot width       0.45 m (18 in.)/sow       0.25 m(10 in.)/pig       75 mm (3 in.)/pig         Feed through length       (not recommended)       0.45 m (18 in.)/sow       0.25 m(10 in.)/pig       0.33 x (15 m (13 x 60 in.)         Individual feeding stall       0.45 m (18 in.)/sow       0.25 m(10 in.)/pig       0.33 x 1.5 m (13 x 60 in.)         Gestation tie stall       (not recommended)            -Width       0.66 m (2 ft 2 in.)            -Height       1.8 m (6 ft)            -Height       1.8 m (6 ft)            -Height </td <td></td> <td></td> <td></td> <td>*0.7 m<sup>2</sup> (7.5 sq ft)/pig</td>				*0.7 m <sup>2</sup> (7.5 sq ft)/pig
-Total area/pig       1.5 m² (16 sq ft), sow under 180 kg 1.9 m² (2.2 o.3 m² (2.2 -3.2 sq ft)/pig         -Solted area       30-100% or pen (1.2 sq ft), sow over 180 kg 30-100% preferred) (100% preferred)         -Sloted area       30-100% or pen (1.0 kg preferred)         -Sloted area       30-100% preferred)         -Sloted area       30-100 kg preferred)         -Slot width       25-32 mm (1-1.25 in.)         -Slot width       38-200 mm (1.5 + 8 in.)         Partition height       38-200 mm (1.5 + 8 in.)         -Slot width       38-200 mm (1.5 + 8 in.)         Partition height       (not recommended)         -slet width       0.45 m (18 in.) sow         Self-feeder length       (not recommended)         Feed through length       0.45 m (18 in.) wide         Gestation it stall       (not recommended)         -Width       0.60-0.7 m (24-28 in.)         -Width       0.66 m (2 ft 2 in.)         -Length feed through to:       gutter         gutter       1.8 m (6 ft)         -Length       1.8 m (6 ft)         -Length       1.8 m (6 ft)         -Length       1.8 x (16 x 7 ft)         late weaning       1.8 x 2.1 m (6 x 7 ft)         late weaning       1.8 x 2.1 m (6 x 7 ft)         late weaning				over 67 kg (150 lb)
-Siotted area         35-100% of pen         30-100% (100% preferred)         30-100% (40% preferred)           -Siotted area         35-100% of pen         (100% preferred)         25-32 mm (1-1.25 in.)         9 or 25 mm (0.4 or 1 in.)         25-32 mm (1-1.25 in.)           -Siott width         25-32 mm (1-1.25 in.)         9 or 25 mm (0.4 or 1 in.)         25-32 mm (1-1.25 in.)         38-100 mm (1.5-8 in.)           -Slat width         38-200 mm (1.5-8 in.)         38-100 mm (1.5-4 in.)         38-200 mm (1.5-8 in.)           Partition height         *1.1 m (43 in.)         0.7 m (28 in.)         0.9 m (36 in.), vertical rods           -         1.0 m (39 in.), solid panels         1.0 m (39 in.), solid panels         1.0 m (39 in.), vipig           Self-feeder length         (not recommended)         50 mm (2 in.)/pig         75 mm (3 in.)/pig           Feed through length         0.45 m (18 in.) wide         0.33 x 1.5 m (13 x 60 in.)           Gestation tie stall         (not recommended)         0.33 x 1.5 m (13 x 60 in.)           -Width         0.64 m (2 ft 2 in.)         -           -Length feed through to:         gutter         1.45-1.65 m (38 c6 6 in.)           slotted floor         1.2 m (48 in.)         -           Gestation pen stall         -         -           -Width         0.66 m (3 ft 6 in.)         <		0		
19 m² (20 sq ft), sow over 180 kg       30-100% (100% preferred)       30-100% (40% preferred)         -Slotted area       35-100% of pen       30-100% (100% preferred)       25-32 mm (1-1.25 in.)         -Slot width       25-32 mm (1-1.25 in.)       9 or 25 mm (0.4 or 1 in.)       25-32 mm (1-1.25 in.)         -Slot width       38-200 mm (1.5-8 in.)       38-100 mm (1.5-4 in.)       38-200 mm (1.5-8 in.)         -Slat width       38-200 mm (1.5-8 in.)       38-100 mm (1.5-4 in.)       38-200 mm (1.5-8 in.)         -Slet width       0.7 m (28 in.)       0.9 m (36 in.), vertical rods         -       1.0 m (39 in.), solid panels       1.0 m (39 in.), solid panels         -       0.45 m (18 in.)/sow       0.25 m(10 in.)/pig       0.33 m (13 in.)/pig         Feed through length       0.45 m (18 in.)/sow       0.25 m(10 in.)/pig       0.33 x 1.5 m (13 x 60 in.)         -Width       0.6-0.7 m (24-28 in.)       0.33 x 1.5 m (13 x 60 in.)       0.33 x 1.5 m (13 x 60 in.)         -Width       0.66 m (2 ft 2 in.)       -       -       -         -Length       0.66 m (3 ft 6 in.)       -       -       -         slotted floor       1.0 m (3 ft 6 in.)       -       -       -         -Height       0.66 m (3 ft 6 in.)       -       -       -       -	-Total area/pig		*0.2-0.3 m <sup>2</sup> (2.2-3.2 sq ft)/pig	
-Slotted area         35·100% of pen         30-100% (40% preferred) (100% preferred)         30-100% (40% preferred)           -Slott width         25·32 mm (1-1.25 in.)         9 or 25 mm (0.4 or 1 in.)         25-32 mm (1-1.25 in.)           -Slott width         38-200 mm (1.5-8 in.)         9 or 25 mm (0.4 or 1 in.)         25-32 mm (1-1.25 in.)           -Slatt width         38-200 mm (1.5-8 in.)         38-100 mm (1.5-4 in.)         38-200 mm (1.5-8 in.)           -Slott width         38-200 mm (1.5-8 in.)         38-100 mm (1.5-4 in.)         38-200 mm (1.5-8 in.)           -Slott width         38-200 mm (1.5-8 in.)         38-100 mm (1.5-4 in.)         38-200 mm (1.5-8 in.)           -Slott width         **1.1 m (43 in.)         0.7 m (28 in.)         0.9 m (38 in.), volta ontal           -Self-feeder length         (not recommended)         50 mm (2 in.)/pig         75 mm (3 in.)/pig           Individual feeding stall         0.45 m (18 in.) wide         0.33 x 1.5 m (13 x 60 in.)           Gestation tie stall         (not recommended)				
-Slotted area         35-100% of pen         30-100% (100% preferred) (100% preferred) (100% preferred)           -Slot width         25-32 mm (1-1.25 in.)         9 or 25 mm (0.4 or 1 in.)         25-32 mm (1-1.25 in.)           -Slat width         38-200 mm (1.5-8 in.)         38-100 mm (1.5-4 in.)         38-200 mm (1.5-8 in.)           -Slat width         38-200 mm (1.5-8 in.)         38-100 mm (1.5-4 in.)         38-200 mm (1.5-8 in.)           Partition height         **1.1 m (43 in.)         0.7 m (28 in.)         0.9 m (38 in.), vertical rods           -         -         1.0 m (39 in.), solid panels         1.0 m (39 in.), solid panels           Self-feeder length         (not recommended)         50 mm (2 in.)/pig         0.33 m (13 in.)/pig           Individual feeding stall         0.45 m (18 in.) wide         0.33 x 1.5 m (13 x 60 in.)           Gestation tie stall         (not recommended)             -Width         0.60-7 m (24-28 in.)             -Length feed through to:              gutter         1.45 f.65 m (65 f.6).             slotted floor         1.2 m (48 in.)             Gestation pen stall <td< td=""><td></td><td></td><td></td><td></td></td<>				
Slot width $25.32 \text{ mm} (1.1.25 \text{ in.})$ $9 \text{ or } 25 \text{ mm} (0.4 \text{ or } 1 \text{ in.})$ $25.32 \text{ mm} (1.1.25 \text{ in.})$ -Slat width $38.200 \text{ mm} (1.5-8 \text{ in.})$ $38.100 \text{ mm} (1.5-4 \text{ in.})$ $38.200 \text{ mm} (1.5-8 \text{ in.})$ Partition height         **1.1 m (43 in.) $0.7 \text{ m} (28 \text{ in.})$ $0.9 \text{ m} (36 \text{ in.}), \text{ vertical rods} 1.0 \text{ m} (39 \text{ in.}), \text{ solid panels}$ Self-feeder length         (not recommended) $50 \text{ mm} (2 \text{ in.})/\text{pig}$ $75 \text{ mm} (3 \text{ in.})/\text{pig}$ Feed through length         0.45 m (18 in.)/sow $0.25 \text{ m}(10 \text{ in.})/\text{pig}$ $0.33 \text{ m} (13 \text{ in.})/\text{pig}$ Individual feeding stall         0.45 m (18 in.) wide $0.33 \text{ m} (13 \text{ in.})/\text{pig}$ $0.33 \text{ x} 1.5 \text{ m} (13 \text{ x} 60 \text{ in.})$ -Width         0.6-0.7 m (24-28 in.)         -         -         -         -           -Length feed through to:         gutter         1.45-1.65 m (58-66 in.)         -         -         -         -         -           Gestation pen stall         - </td <td>-Slotted area</td> <td></td> <td>30-100%</td> <td>30-100% (40% preferred)</td>	-Slotted area		30-100%	30-100% (40% preferred)
-Slat width $38-200 \text{ mn}(1.5-8 \text{ in.})$ $38-100 \text{ mn}(1.5-4 \text{ in.})$ $38-200 \text{ mn}(1.5-8 \text{ in.})$ Partition height **1.1 m (43 in.) $0.7 \text{ m} (28 \text{ in.})$ $0.9 \text{ m} (36 \text{ in.}), \text{ vertical rods}$ 1.0  m (39  in.),  solid panels Self-feeder length $0.45 \text{ m} (18 \text{ in.}) \text{sow}$ $0.25 \text{ m} (0 \text{ in.})/\text{pig}$ $75 \text{ mm} (3 \text{ in.})/\text{pig}$ Feed through length $0.45 \text{ m} (18 \text{ in.}) \text{ wide}$ $0.33 \text{ m} (13 \text{ in.})/\text{pig}$ Gestation tie stall $0.45 \text{ m} (18 \text{ in.})$ wide $0.33 \text{ x} 1.5 \text{ m} (13 \text{ x} 60 \text{ in.})$ Holividual feeding stall $0.45 \text{ m} (24 \text{ cm})$ Length feed through to: gutter $1.45-1.65 \text{ m} (58-66 \text{ in.})$ slotted floor $1.2 \text{ m} (48 \text{ in.})$ Gestation pen stall - -Width $0.66 \text{ m} (2 \text{ fr} 2 \text{ in.})$ -Length $1.8 \text{ m} (6 \text{ ft})$ -Length $1.8 \text{ m} (6 \text{ ft})$ -Height $1.06 \text{ m} (3 \text{ ft} 6 \text{ in.})$ Farrowing pen dimensions -With side creeps: early weaning $1.5 \times 2.1 \text{ m} (6 \times 7 \text{ ft})$ late weaning $1.8 \times 2.1 \text{ m} (6 \times 7 \text{ ft})$ -With front creep $1.5 \times 2.7 \text{ m} (5 \times 9 \text{ ft})$ Feed $0.9 \text{ t} (1 \text{ ton})/\text{sow.year}$ $295-325 \text{ kg} (650-720 \text{ lb})$		·		
Partition height**1.1 m (43 in.) $0.7$ m (28 in.) $0.9$ m (36 in.), vertical rods 1.0 m (39 in.), solid panelsSelf-feeder length(not recommended) $50$ mm (2 in.)/pig $75$ mm (3 in.)/pigFeed through length $0.45$ m (18 in.)/sow $0.25$ m(10 in.)/pig $0.33$ m (13 in.)/pigIndividual feeding stall $0.45$ m (18 in.) wide $0.33 \times 1.5$ m (13 x 60 in.)Gestation ite stall(not recommended) $0.33 \times 1.5$ m (13 x 60 in.)-Vithh $0.6-0.7$ m (24-28 in.) $-1.2$ m (48 in.)-Length feed through to: guttergutter $1.45-1.65$ m (58-66 in.) slotted floorslotted floor $1.2$ m (48 in.)Gestation pen stall $-0.66$ m (2 ft 2 in.)-Length $1.8$ m (6 ft)-Height $1.06$ m (3 ft 6 in.)Farrowing pen dimensions $1.5 \times 2.1$ m (5 x 7 ft) late weaning-With front creep $1.5 \times 2.7$ m (5 x 9 ft)Feed $0.9$ t (1 ton)/sow.yearSet of the stall $0.9$ t (1 ton)/sow.year				
Self-feeder length(not recommended)50 mm (2 in.)/pig1.0 m (39 in.), solid panelsFeed through length0.45 m (18 in.)/sow0.25 m (10 in.)/pig0.33 m (13 in.)/pigIndividual feeding stall0.45 m (18 in.) wide0.33 x 1.5 m (13 x 60 in.)Gestation tie stall(not recommended)0.45 m (18 in.)-With0.6-0.7 m (24-28 in.)0.30 x 1.5 m (13 x 60 in.)-Length feed through to:gutter1.45-1.65 m (58-66 in.)gutter1.45-1.65 m (58-66 in.)1.2 m (48 in.)Gestation pen stall0.66 m (2 ft 2 in.)1.2 m (48 in.)-Length1.8 m (6 ft)1.6 m (3 ft 6 in.)-Height1.06 m (3 ft 6 in.)Farrowing pen dimensions-With font creeps:early weaning1.5 x 2.1 m (5 x 7 ft)early weaning1.5 x 2.1 m (5 x 7 ft)-Vith front creep-With front creep1.5 x 2.7 m (5 x 9 ft)-Vith font creepFeed0.9 t (1 ton)/sow.year295-325 kg (650-720 lb)			( )	( , , , , , , , , , , , , , , , , , , ,
Self-feeder length(not recommended) $50 \text{ mm } (2 \text{ in.})/\text{pig}$ $75 \text{ mm } (3 \text{ in.})/\text{pig}$ Feed through length $0.45 \text{ m } (18 \text{ in.})/\text{sow}$ $0.25 \text{ m} (10 \text{ in.})/\text{pig}$ $0.33 \text{ m } (13 \text{ in.})/\text{pig}$ Individual feeding stall $0.45 \text{ m } (18 \text{ in.})$ wide $0.25 \text{ m} (10 \text{ in.})/\text{pig}$ $0.33 \text{ m } (13 \text{ in.})/\text{pig}$ Gestation tie stall(not recommended) $0.33 \text{ x } 1.5 \text{ m } (13 \text{ x } 60 \text{ in.})$ -Width $0.6-7 \text{ m } (24-28 \text{ in.})$ $0.33 \text{ x } 1.5 \text{ m } (13 \text{ x } 60 \text{ in.})$ -Length feed through to:gutter $1.45-1.65 \text{ m } (58-66 \text{ in.})$ slotted floor $1.2 \text{ m } (48 \text{ in.})$ $-44 \text{ m } (10 \text{ m } (2 \text{ ft } 2 \text{ in.})$ Gestation pen stall $-0.66 \text{ m } (2 \text{ ft } 2 \text{ in.})$ $-4 \text{ memory of m } (3 \text{ ft } 6 \text{ ft})$ -Length $1.8 \text{ m } (6 \text{ ft})$ $-16 \text{ m } (3 \text{ ft } 6 \text{ in.})$ -Length $1.06 \text{ m } (3 \text{ ft } 6 \text{ in.})$ $-4 \text{ memory of m } (3 \text{ ft } 6 \text{ in.})$ Soltted floor $1.2 \text{ m } (48 \text{ in.})$ $-4 \text{ memory of m } (3 \text{ ft } 6 \text{ in.})$ Gestation pen stall $-4 \text{ memory of m } (3 \text{ ft } 6 \text{ in.})$ $-4 \text{ memory of m } (3 \text{ ft } 6 \text{ in.})$ -Length $1.06 \text{ m } (3 \text{ ft } 6 \text{ in.})$ $-4 \text{ momory of m } (3 \text{ ft } 6 \text{ in.})$ Farrowing pen dimensions $-5 \text{ momory of m } (3 \text{ ft } 6 \text{ in.})$ $-5 \text{ momory of m } (3 \text{ ft } 6 \text{ m} + 10 \text{ m} )$ -With ford creep $1.5 \times 2.1 \text{ m } (5 \times 7 \text{ ft})$ $-5 \text{ m } (5 \times 9 \text{ ft})$ -With ford creep $0.9 \text{ t} (1 \text{ ton})/\text{sow.year}$ $295-325 \text{ kg} (650-720 \text{ lb})$ <	Partition height	**1.1 m (43 in.)	0.7 m (28 in.)	
Feed through length       0.45 m (18 in.)/sow       0.25 m(10 in.)/pig       0.33 m (13 in.)/pig         Individual feeding stall       0.45 m (18 in.) wide       0.33 x 1.5 m (13 x 60 in.)         Gestation tie stall       (not recommended)       0.33 x 1.5 m (13 x 60 in.)         -Width       0.6-0.7 m (24-28 in.)       -         -Length feed through to:       gutter       1.45-1.65 m (58-66 in.)         slotted floor       1.2 m (48 in.)       -         Gestation pen stall       -       -         -Width       0.66 m (2 ft 2 in.)       -         -Length       1.8 m (6 ft)       -         -Height       1.06 m (3 ft 6 in.)       -         Farrowing pen dimensions       -       -         -With side creeps:       -       -         early weaning       1.5 x 2.1 m (5 x 7 ft)       -         late weaning       1.5 x 2.1 m (6 x 7 ft)       -         -With front creep       1.5 x 2.7 m (5 x 9 ft)       -         Feed       0.9 t (1 ton)/sow.year       295-325 kg (650-720 lb)				
Individual feeding stall       0.45 m (18 in.) wide       0.33 x 1.5 m (13 x 60 in.)         Gestation tie stall       (not recommended)       0.33 x 1.5 m (13 x 60 in.)         -Width       0.6-0.7 m (24-28 in.)       -         -Length feed through to:       gutter       1.45-1.65 m (58-66 in.)         slotted floor       1.2 m (48 in.)       -         Gestation pen stall       -       -         -Width       0.66 m (2 ft 2 in.)       -         -Length       1.8 m (6 ft)       -         -Height       1.06 m (3 ft 6 in.)       -         Farrowing pen dimensions       -       -         -With side creeps:       -       -         early weaning       1.5 x 2.1 m (5 x 7 ft)       -         late weaning       1.8 x 2.1 m (6 x 7 ft)       -         -With front creep       1.5 x 2.7 m (5 x 9 ft)       -         Feed       0.9 t (1 ton)/sow.year       295-325 kg (650-720 lb)	0			
Gestation tie stall         (not recommended)           -Width         0.6-0.7 m (24-28 in.)           -Length feed through to:	5 5		0.25 m(10 in.)/pig	( )
-Width       0.6-0.7 m (24-28 in.)         -Length feed through to:				0.33 x 1.5 m (13 x 60 in.)
-Length feed through to:       9         gutter       1.45-1.65 m (58-66 in.)         slotted floor       1.2 m (48 in.)         Gestation pen stall       -         -Width       0.66 m (2 ft 2 in.)         -Length       1.8 m (6 ft)         -Height       1.06 m (3 ft 6 in.)         Farrowing pen dimensions       -         -With side creeps:       -         early weaning       1.5 x 2.1 m (5 x 7 ft)         late weaning       1.5 x 2.7 m (5 x 9 ft)         -With font creep       1.5 x 2.7 m (5 x 9 ft)         Feed       0.9 t (1 ton)/sow.year       295-325 kg (650-720 lb)				
gutter       1.45-1.65 m (58-66 in.)         slotted floor       1.2 m (48 in.)         Gestation pen stall         -Width       0.66 m (2 ft 2 in.)         -Length       1.8 m (6 ft)         -Height       1.06 m (3 ft 6 in.)         Farrowing pen dimensions         -With side creeps:         early weaning       1.5 x 2.1 m (5 x 7 ft)         late weaning       1.8 x 2.1 m (6 x 7 ft)         -With front creep       1.5 x 2.7 m (5 x 9 ft)         Feed       0.9 t (1 ton)/sow.year       295-325 kg (650-720 lb)		0.0-0.7 111 (24-28 111.)		
Gestation pen stall         -Width         0.66 m (2 ft 2 in.)           -Length         1.8 m (6 ft)           -Height         1.06 m (3 ft 6 in.)           Farrowing pen dimensions         -With side creeps:           -With side creeps:         -arrowing           early weaning         1.5 x 2.1 m (5 x 7 ft)           late weaning         1.8 x 2.1 m (6 x 7 ft)           -With front creep         1.5 x 2.7 m (5 x 9 ft)           Feed         0.9 t (1 ton)/sow.year         295-325 kg (650-720 lb)		1.45-1.65 m (58-66 in.)		
-Width       0.66 m (2 ft 2 in.)         -Length       1.8 m (6 ft)         -Height       1.06 m (3 ft 6 in.)         Farrowing pen dimensions       -         -With side creeps:       -         early weaning       1.5 x 2.1 m (5 x 7 ft)         late weaning       1.8 x 2.1 m (6 x 7 ft)         -With front creep       1.5 x 2.7 m (5 x 9 ft)         Feed       0.9 t (1 ton)/sow.year       295-325 kg (650-720 lb)	slotted floor	1.2 m (48 in.)		
-Length     1.8 m (6 ft)       -Height     1.06 m (3 ft 6 in.)       Farrowing pen dimensions				
-Height       1.06 m (3 ft 6 in.)         Farrowing pen dimensions       -         -With side creeps:       -         early weaning       1.5 x 2.1 m (5 x 7 ft)         late weaning       1.8 x 2.1 m (6 x 7 ft)         -With front creep       1.5 x 2.7 m (5 x 9 ft)         Feed       0.9 t (1 ton)/sow.year       295-325 kg (650-720 lb)				
Farrowing pen dimensions           -With side creeps:           early weaning         1.5 x 2.1 m (5 x 7 ft)           late weaning         1.8 x 2.1 m (6 x 7 ft)           -With front creep         1.5 x 2.7 m (5 x 9 ft)           Feed         0.9 t (1 ton)/sow.year         295-325 kg (650-720 lb)				
-With side creeps:         early weaning       1.5 x 2.1 m (5 x 7 ft)         late weaning       1.8 x 2.1 m (6 x 7 ft)         -With front creep       1.5 x 2.7 m (5 x 9 ft)         Feed       0.9 t (1 ton)/sow.year       295-325 kg (650-720 lb)				
early weaning         1.5 x 2.1 m (5 x 7 ft)           late weaning         1.8 x 2.1 m (6 x 7 ft)           -With front creep         1.5 x 2.7 m (5 x 9 ft)           Feed         0.9 t (1 ton)/sow.year				
late weaning         1.8 x 2.1 m (6 x 7 ft)           -With front creep         1.5 x 2.7 m (5 x 9 ft)           Feed         0.9 t (1 ton)/sow.year         295-325 kg (650-720 lb)		1.5 x 2.1 m (5 x 7 ft)		
Feed 0.9 t (1 ton)/sow.year 295-325 kg (650-720 lb)	late weaning	1.8 x 2.1 m (6 x 7 ft)		
	•	,		
	Feed	0.9 t (1 ton)/sow.year		295-325 kg (650-720 lb) from birth to 90 kg (200 lb)

#### TABLE 1 SPACE REQUIREMENTS FOR SWINE

\* Provide enough sleeping area for all pigs to lie halfway between 'recumbent' (on the flank) and 'sternum' (on the belly). \*\*Open partitions with vertical spindles or rods are preferred; increase to 1.2 m (48 in.) at boar pens.

Stage of growth	L	(gal)
Weaner: 12 kg (26 lb)	2.3-03.2	(0.5-0.7)
Grower: 27-36 kg (60-80 lb)	3.2-04.5	(0.7-1.0)
Finisher: 34-90 kg (75-200 lb)	4.5-07.3	(1.0-1.6)
Sow: 90-172 kg (200-378 lb)	5.4-13.6	(1.2-3.0)
Sow: before farrowing	13.6-17.2	(3.0-3.8)
Sow: after farrowing	18.1-22.7	(4.0-5.0)

#### TABLE 3 DAILY MANURE STORAGE VOLUMES

Class of swine		Manure /pig		Liquid manure* storage/pig		Solid manure storage/pig		
kg	(lb)	Weeks of age	L	(cu ft)	Ľ	(cu ft)	L	(cu ft)
Growing pigs								
18-91	(40-200)	8-22	51	(0.18)	7.1	(0.25)	7.1	(0.25)
4-11	(10-25)	3-6	1.1	(0.04)	1.6	(0.06)		
11-23	(25-50)	6-9	2.3	(0.08)	3.1	(0.11)		
23-34	(50-75)	9-12	3.4	(0.12)	4.8	(0.17)		
34-57	(75-125)	12-16	5.1	(0.18)	7.1	(0.25)		
57-80	(125-175)	16-20	7.4	(0.26)	10.2	(0.36)		
80-91	(175-200)	20-22	9.1	(0.32)	12.7	(0.44)		
Dry sow			11.3	(0.40)	15.9	(0.56)	13.6	(0.48)
Nursing sow and litter								
-wean at 3 weeks			15.6	(0.55)	21.8	(0.76)		
-wean at 6 weeks			19.5	(0.68)	27.5	(0.96)		

\*This column was calculated from daily manure/pig column by a multiplying factor of 1.4 to account for spillage from waterers, floor washing and other dilution water where required. Actual storage required may vary widely.