Feedmaster

Your Quality Solution

# PIG GUIDE

# Feedmaster Pig Production System (FPPS)

## Introduction

Pig production is fast becoming an alternative income source in Namibia. Why is pig production booming in Namibia? The answer is simple...

- Namibia is importing more than 50% of its pig meat (and the demand for meat is still rising)
- Knowledge about the production of pigs is easier to access than in the past;
- Specialised feeds are on the doorstep of upcoming farmers.

## Economic principles

Feeding management on a pig farm is one of the cornerstones in farming for profit. Cutting of feed cost will not necessarily result in a producer making an increased profit but will guarantee reduced growth rates, fertility, and inevitably reduced profit. To succeed a farmer should consider all aspects of his farming enterprise and maximize all facets to ensure sustainability.

The basic metabolic needs of a pig should be supplied through the feed. As soon as the daily metabolic needs of the pigs have been fulfilled, then leftover protein and energy are used for production. It should be taken into consideration that each day that the pig does not have extra nutrients for growth and production the feed is only used for maintaining its bodyweight with no value-added. Different stages in the life cycle of a pig should also be taken into consideration when feeding. Piglets grow at an exponential rate and it is at this young stage that the farmer should take advantage of this growth rate and better feed efficiency to reach market weights earlier.

Pigs have a feed conversion ratio of approx. 3.3 to 1 *(Feed conversion ratio is measuring the **efficiency** with which the bodies of livestock **convert animal feed** into the desired output)*

Pigs have a slaughter percentage of 72% of live weight.

Advances in new technology and production systems have simplified intensive farming and have helped with the management aspects regarding intensive farming.

Feedmaster pig production systems can help diversify a farmers' farming model.

# How does Feedmaster's pig production system work?

The following schedule can be used as a guideline.

- FPPS consists of 15 sows and 1 boar resulting in 120 slaughter pigs over 12 months.
- The 15 sows are divided into 5 groups of 3 sows per group.

The table below - implementation of this production system over two years:

# Porkers Breeding Cycle

| GROUPS | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEPT | OCT | NOV | DEC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **BREEDING CYCLE - YEAR ONE** | | | | | | | | | | | | |
| G1 | M | | | F | | W&M | W&M | | F S | | W&M | W&M |
| G2 | | M | | | F | | W&M | W&M | | F S | | W&M |
| G3 | | | M | | | F | | W&M | W&M | | F S | |
| G4 | | | | M | | | F | | W&M | W&M | | F S |
| G5 | | | | | M | | | F | | W&M | W&M | |
| **BREEDING CYCLE - YEAR TWO** | | | | | | | | | | | | |
| G1 | | F S | | W&M | W&M | | F S | | W&M | W&M | | F S |
| G2 | W&M | | F S | | W&M | W&M | | F S | | W&M | W&M | |
| G3 | W&M | W&M | | F S | | W&M | W&M | | F S | | W&M | W&M |
| G4 | | W&M | W&M | | F S | | W&M | W&M | | F S | | W&M |
| G5 | F S | | W&M | W&M | | F S | | W&M | W&M | | F S | |

**M** - Mating **F** - Farrowing **W&M** - Weaning & Mating **S** - Slaughter

The system has been designed to spread out cash flow, which means there will be pigs to wean, mate, and sell each month.

On the next page is a table containing information on implementing the FPPS into two marketable solutions. The farmer can either implement the FPPS to grow Porkers or Baconers. Depending on the market demand.

# Baconers Breeding Cycle

| GROUPS | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEPT | OCT | NOV | DEC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **BREEDING CYCLE - YEAR ONE** | | | | | | | | | | | | |
| G1 | M | | | F | | W&M | W&M | | F | S | W&M | W&M |
| G2 | | M | | | F | | W&M | W&M | | F | S | W&M |
| G3 | | | M | | | F | | W&M | W&M | | F | S |
| G4 | | | | M | | | F | | W&M | W&M | | F |
| G5 | | | | | M | | | F | | W&M | W&M | |
| **BREEDING CYCLE - YEAR TWO** | | | | | | | | | | | | |
| G1 | | F | S | W&M | W&M | | F | S | W&M | W&M | | F |
| G2 | W&M | | F | S | W&M | W&M | | F | S | W&M | W&M | |
| G3 | W&M | W&M | | F | S | W&M | W&M | | F | S | W&M | W&M |
| G4 | S | W&M | W&M | | F | S | W&M | W&M | | F | S | W&M |
| G5 | F | S | W&M | W&M | | F | S | W&M | W&M | | F | S |

**M** - Mating **F** - Farrowing **W&M** - Weaning & Mating **S** - Slaughter

## Growing Porkers

As seen from the tables above, pigs that mated at the end of January will have marketable offspring which will be slaughtered in September the same year. The same group will mate at the beginning of July and the offspring slaughtered in September the same year. In the first two years, 16 groups can be produced and slaughtered.

## Growing Baconer's

As seen from the tables above, pigs that mated in January will have marketable offspring ready in October the same year, the same group will mate at the beginning of July, and the offspring slaughtered in March the next year. In the first two years, 15 groups can be slaughtered.

# Feedmaster Pig Feeds

## Feedmaster has developed feeds specifically for every stage of the pig's life cycle.

- Classic Pig Creep pellets (day 3 to 28)
- Classic Pig Grower pellets (day 29 to 110)
- Classic Pig Finisher Pellets (day 110 to 160)
- Classic Sow and Boar feed (Used for maintenance)




## Classic Pig Creep Pellets (day 3 to 28)

Pigs on suckling alone will only be weaned at 8 weeks of age. Pig Creep Pellets should always be readily available from day 3 until week 8 which is 2 to 3 weeks after they have been weaned. Weaning age can vary from 21 to 42 days. At week 4 (28 days) pigs are weaned and should weight 10kg in an intensive unit. At week 6 in an extensive unit pigs are weaned and they should weigh 10-12. The piglet's weight should not be below 8kg when weaned. After 8 weeks of age, the pigs can be changed to grower meals, this should be done gradually over a week.

## Composition of Classic Pig Creep Pellets

| COMPOSITION G/KG | | |
|---|---|---|
| | **MIN** | **MAX** |
| PROTEIN | **160** | |
| CALCIUM | **7.5** | |
| PHOSPHATE | **6** | |
| FIBER | | **40** |
| MOISTURE | | **120** |

## Prescribed Consumption

Feed ad-lib. This period suggests from birth until weaning. The feed should only be accessible to piglets. Consumption for the creep period should not exceed 14 kg feed per piglet. Consumption of creep feed will also depend on the conditions in which the piglet is growing.

## Benefits of Classic Pig Creep Pellets

- High, digestible creep meal during the nursing period ensures increased nutrient uptake and thus results in better weaning weight.
- Reduces the weaning shock and thus facilitates the transition to Pig Grower with minimal loss in weight.
- The growth period can be shortened as the desired slaughter/ sales weight is reached earlier. By shortening the growing period by a week, a minimum of 7 kg of grower/finisher feed can be saved.
- Sow's recovery period is more effective.
- The better feed efficiency at earlier ages is utilized.

## Guidelines for successful creep feeding

- Use a highly digestible creep feed.
- Piglets should be fed fresh feed often. They must be fed 3 to 5 times daily.
- Do not feed large amounts once a day.
- Piglets that finish the initial amount of feed should receive more a couple of minutes later.
- Piglets are the most inquisitive when the sow is eating. This is the most important time to have fresh creep feed available.
- To get the post-weaning benefits of creep feeding, a minimum pre-weaning creep intake of 300 to 500g per piglet should be achieved at the time of weaning.

## Pig Grower (day 28 to 110)

Growth rate and effective use of feed are of utmost importance after weaning. Porkers can be placed into different categories:

- small porkers 12 weeks of age, live-mass 34-47, and cold dressed mass of 25-35.
- Medium porker 14 weeks of age, live-mass 48-60, and cold dressed mass of 35-45.
- Large porker 18 weeks of age, live-mass 61-74 and cold dressed mass 45-55.

## Composition of Classic Pig Grower

| COMPOSITION G/KG | | |
|---|---|---|
| | **MIN** | **MAX** |
| PROTEIN | **150** | |
| CALCIUM | **6** | |
| PHOSPHATE | **5** | |
| FIBER | | **80** |
| MOISTURE | | **120** |

## Prescribed Consumption

### Weaner till Porker

Feed ad-lib. Consumption should be about 100kg of Pig Grower until a mass of 65kg of live weight is reached.

## Pig Finisher

Pig Finisher ensures quick and effective fat deposition and marbling to porkers with minimal excessive weight gain from meat production. Pig finisher is fed ad-lib from a weight of 65kg to 120kg. Consumption should be about 150kg.

Other methods of finishing pigs include feeding the baconers pig grower until they reach a slaughter weight of 90kg. This method gives a much leaner baconer.

Baconers are marketed at a weight of between 90 and 120 kg.

## Composition of Classic Pig Finisher

| COMPOSITION G/KG | | |
|---|---|---|
| | **MIN** | **MAX** |
| PROTEIN | **140** | |
| CALCIUM | **6** | |
| PHOSPHATE | **4.5** | |
| FIBER | | **80** |
| MOISTURE | | **120** |

## Prescribed Consumption

Feed ad-lib. Consumption should be between 2.5 – 3 kg per day.

## Boar and Sow

**Boar** - Boar, and Sow should be fed to boars to keep them in a good bodily condition, functionally effective, and stimulate activity and fertility.

**Sow** - Boar and Sow ensure the correct bodily condition of sows. It ensures the sow receives ample energy, protein, vitamins, and trace minerals to boost fertility.

## Composition of Classic Boar and Sow

| COMPOSITION G/KG | | |
|---|---|---|
| | **MIN** | **MAX** |
| PROTEIN | **120** | |
| CALCIUM | **7.5** | |
| PHOSPHATE | **6** | |
| FIBER | | **85** |
| MOISTURE | | **120** |

## Prescribed Consumption

### Young Sows
2 kg per day until sexual maturity. From sexual maturity ad-lib till 3 days before the onset of first mating.

### Mature Sows
1.75 kg to 2 kg during the gestation period. Further, they are handled just like the young sows.

### Lactating Sows
From the birth of the piglets feed Classic Pig Grower at 1.5 kg plus 0.5kg for every piglet in the litter.

### Boar
1.5kg till 1.8kg per boar /day outside the mating season. During mating season feed ad-lib at ± 2.5 kg/day. But keep in mind that the boar must not be overweight as this will lead to low fertility.

# Tables to illustrate feed consumption

## Piglet to Porker

| PRODUCT | DAY | KG OF FEED |
|---|---|---|
| CREEP FEED | 3-28 | 14 |
| PIG GROWER | 29 - 110 | 120 |
| TOTAL | 110 | 134 |

## Piglet to Baconer

| PRODUCT | DAY | KG OF FEED |
|---|---|---|
| CREEP FEED | 3-56 | 14 |
| PIG GROWER | 56 - 110 | 120 |
| PIG FINISHER | 111 - 160 | 150 |
| TOTAL BACONER | 160 | 284 |

Feed consumption of sow's at different stages, based on only 2 farrows per year

## Young sow until the first lactation

| STAGE | DAY | KG OF FEED |
|---|---|---|
| WEAN TO GILT | 0 - 110 | 134 |
| GILT TO THE FIRST SERVICE | 110 - 250 | 280 |
| TOTAL | 250 | 414 |

## Mated sow until next mating period (2 cycles)

| STAGE | DAYS | KG OF FEED |
|---|---|---|
| MATED SOW | 12 | 36 |
| PREGNANT SOW | 232 | 464 |
| LACTATING SOW | 56 | 364 |
| DRY SOW | 65 | 130 |
| Total | 365 | 994 |

## Boar

| STAGE | DAYS | KG OF FEED |
|---|---|---|
| OUT OF SEASON | 293 | 527.40 |
| MATING SEASON | 72 | 180 |
| TOTAL | 365 | 707.40 |

# Marketable animals

## Porker Model

| DAYS | LIVE WEIGHT | SLAUGHTERED WEIGHT |
|---|---|---|
| 110 | 65 | 46.8 |

### FPPS Potential marketable pigs for the first 2 years

3 sows x 20 births over 2-year period x raising 10 piglets successful = **600 Potential slaughtered animals.**

### Year 1

8 groups x 30 (10 piglets per sow) = 240 porkers

### Year 2

12 groups x 30 (10 piglets per sow) = 360 porkers

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## Baconer Model

| DAYS | LIVE WEIGHT | SLAUGHTERED WEIGHT |
|---|---|---|
| 160 | 120 | 86.4 |

### FPPS Potential amount of marketable baconers in first 2 years

3 sows x 16 births over 2 years x Raising 10 piglets successfully = **480 Potential slaughtered animals.**

### Year 1

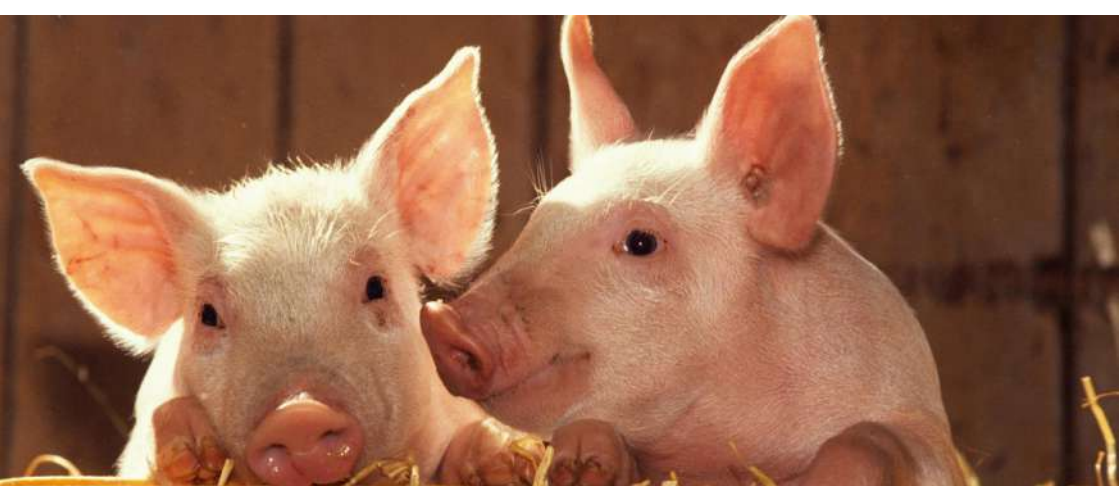
6 groups x 30 Piglets per group = 180 Baconers

### Year 2

10 groups x 30 piglets per group = 300 Baconers

# Marketable animals

| AGE/ WEEKS/D | LIVE MASS | GAIN/ WEEK | FCR | INTAKE G/DAY | KG FEED/ WEEK | TOTAL |
|---|---|---|---|---|---|---|
| 4 | 8 | | 0.9 | 0.3 | 1.9 | 1.9 |
| 5 | 10 | 2 | 1 | 0.4 | 2.7 | 4.6 |
| 6 | 12 | 3 | 1.2 | 0.6 | 2.8 | 7.4 |
| 7 | 16 | 4 | 1.4 | 0.8 | 5.6 | 13 |
| 8 | 20 | 4 | 1.5 | 0.9 | 6.3 | 19.3 |
| 9 | 24 | 5 | 1.6 | 1.1 | 6.7 | 26 |
| 10 | 29 | 5 | 1.8 | 1.3 | 9.1 | 35.1 |
| 11 | 34 | 5 | 2 | 1.5 | 10.5 | 45.6 |
| 12 | 38 | 5 | 2.2 | 1.7 | 11.9 | 57.5 |
| 13 | 44 | 5 | 2.4 | 1.7 | 11.9 | 69.4 |
| 14 | 50 | 6 | 2.4 | 2 | 14 | 83.4 |
| 15 | 58 | 6.3 | 2.6 | 2.3 | 16.1 | 99.5 |
| 16 | 65 | 6.6 | 2.7 | 2.5 | 17.5 | 117 |
| 17 | 73 | 7 | 2.7 | 2.6 | 18.2 | 135.2 |
| 18 | 84 | 7 | 2.8 | 2.8 | 19.3 | 154.5 |
| 19 | 89 | 7.4 | 2.9 | 3 | 21 | 175.5 |
| 20 | 96 | 7.7 | 3 | 3.3 | 23.1 | 198.6 |
| 21 | 106 | 7.7 | 3 | 3.3 | 23.1 | 221.7 |
| 22 | 113 | 7 | 3.3 | 3.3 | 23.1 | 244.8 |
| 23 | 120 | 7 | 3.3 | 3.3 | 23.1 | 267.9 |
| 24 | 127 | 7 | 3.3 | 3.3 | 23.1 | 291 |



# Guidelines for an effective pig farm

**Selection of breeding gil**t (female pig that is less than six months old and capable of breeding and producing young)

A breeding gilt is an important contributing factor in the piggery. Breeding gilts should be selected when they have reached bacon weight. The breeding gilts should then be moved out of the fattening pens, and the remainder sold as baconers. Bacon's weight is approximately 90 kg live weight and up until this stage they should be fed in the same way as all the other pigs being fattened.

## The following is important when selecting a breeding gilt

- The gilt should have at least 12-14 well-spaced teats.
- The teats should not be inverted and having a fat deposit at the base.
- Should have a good body confirmation.
- Gilt should be at least 8 months at first service.
- Select fast-growing gilts from the time of weaning.
- Do not service an underfed gilt.
- Fine silky skin is a sign of good health.
- No abnormalities.

## Selection of breeding boar

Breeding boar contributes half of the pig's quality. It is important to consider the following when selecting breeding boars:

- Should have sound feet with good and full hams and good body condition.
- The boar should have a uniform curve and a good length at the back.
- The boar should have at least 12-14 teats.
- Boar should be selected from sows that farrowed at least 12-16 piglets and weaned 10-12 or more piglets.
- Selection should be done for healthy and strong sex organs.
- Selection should be done before castration (before 3-4 weeks).
- Boar should be at least 8 - 9 months old at first service.
- Young boars should be used on guilts to ensure the boar is not too heavy for the guilt.

## Temperature conditions for piglets

Temperature extremes can be deadly to young pigs, it is important to check if the pigs are not chilled or overheated. Young piglets will huddle together when they experience cold temperatures. If the pigs are spread out and panting, they are too hot. The ideal environmental temperature for the sow is between 16- and 18°C whereas temperatures for the piglets should be kept between 28- and 32°C. A separate creep area should be provided for the litter which is heated to help the piglets in the first three weeks. Sows do not enjoy hot temperatures.

## Heat detection

Heat detection is explained to be the process of identifying gilts and sows that are receptive to mating. A sexually mature gilt and/or sow in good health should cycle every 3 weeks if she is not pregnant or lactating. The oestrous cycle of swine takes normally 21 days to complete. Oestrus lasts for 50-60 hours and the optimum period for fertility last for 24 hours. The boar should serve 12 hours after heat detection. For example, if the gilt is on heat during the afternoon, she is served the following morning and again in the afternoon.

## Signs of heat:

- Swollen and red vulva 2-6 days before oestrus.
- Mucous discharge from the vulva.
- Prick-ear breeds hold their ears erect and pointing backwards.
- Restless and poor appetite.
- Sniffing genital area and riding pen mates.
- When at peak oestrus they show the “stance reflex” by arching their back,
- Stand rigidly when pushed from behind and allow them to sit on their backs.
- They make a characteristic squeaky grunt and seek out other pigs as they look for a boar.

# Mating

There are 2 different methods of mating. Farmer opts to go for the method that works best for their farm. Management is crucial at this point because it influences future income/ expenditure.

## Pen mating method

In this method, the boar is in contact with the sow/gilt. When the sow/gilt goes on heat, the boar is introduced to them. A boar can service 6-8 sows and/ or 4-6 gilts per day. Use mature boars when servicing gilts.

### Advantages

- This is a natural process and free method, as the boar runs around with the gilts/sows'
- It's not a labour-intensive method.

### Disadvantages

- Injuries of boars and sows'
- Less predictable breeding days.
- Risk of boars being overused.
- Lower conception rates.

## Artificial Insemination

This is a technique whereby semen with live sperms is collected from the male and introduced into the female reproductive tract when the sow is on heat, with the help of instruments under hygienic conditions.

### Advantages

- Allows the use of semen from superior quality boars.
- AI overcomes size differences between boars and sows'
- It helps in maintaining accurate breeding and farrowing records.
- Old, heavy, and injured boars can still be used.

### Disadvantages

- Requires skilled personnel and special equipment.
- Requires more time than natural services.
- Low fertility of semen may arise with improper cleaning of instruments and unsanitary conditions.
- Semen must be stored at the right temperature, for it to be effective.
- Semen can only be stored up to 3 days, then must be discarded after.
- A bit more expensive than natural mating.

## Procedures of Artificial Insemination

1. The sow or gilt should be in standing heat.
2. Clean the vulva with a damp cloth or paper towel, to prevent contaminants being pushed into the reproductive tract when the insemination catheter is inserted.
3. Take note, the pig's vaginal tract is very close to her urethra. Her urethra is located at the bottom of her vulva, so the catheter should be inserted at an angle slightly upward angle to avoid the urethra. Angle the insemination catheter upward (toward the backbone) to avoid the opening to the bladder.
4. Once the catheter is inserted, you'll gently push the catheter until it hit the cervix. You will know that you have entered the cervix properly when you gently pull back on the rod and feel slight resistance.
5. You will start turning the catheter counter-clockwise to lock it into the cervix. Gently pull back to make sure there is a slight resistance.
6. Insert the tube with semen and release.
7. Leave the catheter in for about 5 minutes and continue to stimulate by holding the catheter in one hand and placing the other hand on the hips of sow/gilt and stroking in a forward motion to just behind the shoulders.
8. Remove the catheter gently. Once the catheter is removed stimulate the saw by rubbing the vulva 3 – 5 times in an upward motion.
9. Sows/Gilts should remain calm during and after insemination.

### Take note:

1. For better results, perform AI at least twice during a heat cycle, preferably three times.
   With a time, interval of 12-24 hours.
2. Successful insemination will depend on detecting oestrus, correct timing of the insemination, and correct storage and handling of semen.
3. The boar matures between 6 and 8 months and donates semen.

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# Gestation

Pregnancy detection is usually done by observation for failure to return to oestrus 17-21 days following mating. Then, at around 3 month's gestation, the sow will take on a pot-bellied abdomen and enlarged udder. The gestation (pregnancy) period of a sow/gilt is 114 days (3 months, 3 weeks, and 3 days). The sow will be ready to be bred another cycle around 5-7 days after her piglets are weaned. Thus, if you wean the litter of pigs at 21 days of age she will come into oestrus (heat) around 26-28 days after farrowing (giving birth).

# Farrowing

The process happens in 3 stages, namely: the pre-farrowing period, the farrowing process, and the immediate post-farrowing period, where the afterbirth is expelled.

### Stage 1 - The pre-farrowing period

The preparation for farrowing starts 10 to 14 days before the actual date, with the development of the mammary glands and the swelling of the vulva. At the same time, teat enlargement occurs and the veins supplying the udder stand out. The signs of farrowing are a reduction in appetite, restlessness, the sow standing up, and lying down also the sow will try and builds some sort of nesting area.

Within 12 hours of actual delivery, the piglets begin. Milk is secreted into the mammary glands and with a gentle hand and finger massage, it can be expressed from the teats. This is one of the most reliable signs of farrowing. A slight mucous discharge may be seen on the lips of the vulva. The final part of stage 1 is the opening of the cervix to allow the pigs to be pushed out of the uterus, through the vagina and into the world.

### Stage 2. The farrowing process

The process can range from 3 to 8 hours and piglets are usually delivered every 10 to 20 minutes but there is a wide variation. There is often a gap between the first and second piglet of up to three-quarters of an hour. Immediately before the presentation of a pig, the sow lays on her side, often shivering and lifting the upper back leg. This is an important part, as it may indicate the presence of a stillborn pig. Twitching of the tail is seen just as a pig is about to be born.

### Stage 3. Delivery of the placenta

Takes place over 1-4 hours and is an indication that the sow has finished farrowing, though some afterbirth will sometimes be passed during the process of farrowing. Once the sow has completed the farrowing process, she'll appear at peace, grunts calling her piglets. The shivering and movement of the top hind leg cease. If this is still occurring, likely, a pig is still presented.

After the placenta has been delivered there will be a slight to heavy discharge for 3 to 5 days. Provided the udder is normal, the sow is normal and eating well ignore it, it is a natural post-farrowing process. Occasionally a pathogenic organism enters the uterus causing inflammation, that's why the sow should be given an antibiotic after.

### Take note:

It is ideal management to attend and monitor farrowing.

1. Should the sow show signs of discomfort, you should assist her farrow. Wear clean long plastic gloves, apply liquid paraffin, and palpate/examine the sow. There could be a stillbirth or a mammy piglet.
2. Piglets arrive wet (clean the mucous off) and hungry. Piglets will immediately and instinctively work their way to a teat for nourishment.
3. Provide supplemental heat to the piglets upon their birth.

## Newborn Piglets

- Mark all the piglets (tattoos). This makes it possible to monitor the growth of individual piglets.
- Do an iron injection on piglets between 3 and 7 days after birth.
- Vaccinate piglets against bacterial and viral diseases.
- Castrate young boars when they are 3 weeks old
- Cut teeth with teeth trimmer day 3 to 7 when delivering the iron injection.

### Bought pigs

- Immunize pigs against bacterial diseases.
- Immunize pigs against viral diseases
- Isolate pigs for a few days to observe any diseases prevalently
- Castrate young boars
- Deworm pigs with the long-acting anti-parasite product.

### Sow and piglet management

- Newborn piglets are very sensitive to fluctuations in temperature, airflow, or wet environments. The birthing pens should thus be designed to protect the piglets against these elements.
- A moving area separate from the birthing area should be extensible to the piglets far away from their mother. Sows tend to accidentally step or lie on the newborn piglets. This can result in early mortalities.
- The creep area should always be dry and the heat source such as infrared light or electrical heating source should be running during the creep phase. Creep feed can be given from day 3 till wean (day 28). The fresh feed should be given daily.

# Housing

The pigs require a warm dry bed with minimum wind, and temperature changes. The pigs need a space where they can eat, and a separate area where the pigs can dung and urinate. The pigs will dung and urinate away from their sleeping area, and it will be good if there is a dunging passage which can be cleaned out daily. In the creep area, the use of infrared lighting is an effective management tool to reduce newly born piglet mortalities. This is a necessity in modern-day pig farming as every extra pig to be sold has a dramatic impact on overall profitability.

## The following factors should be taken into account when building pig houses

- The temperature in which pigs are most comfortable.
- Ventilation is key.
- Space needed by the pigs throughout their growing phases.
- Feeding space, an inspection of pigs, and cleaning
- The site of the whole pig unit and all the houses.
- Enough water for cleaning

## Ideal temperature conditions for pigs

| | |
|---|---|
| Sows | 13-21 °C |
| Farrowing house | 15-18 °C |
| Piglets to 8 weeks old | 28-32 °C |
| Porkers | 18-21 °C |
| Baconers | 15-18 °C |

## Floor space square meters per pig

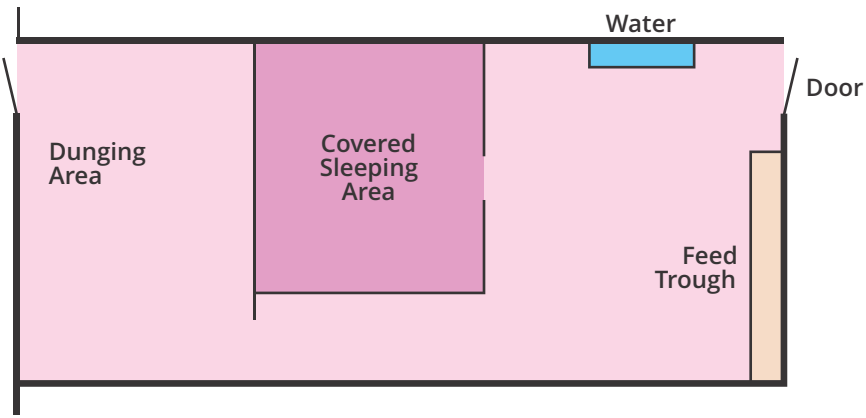
| | |
|---|---|
| Sows in yards | 3-4m² |
| Farrowing pen | 6.2m² |
| Weaning in yards | 0.7-0.9m² |
| Porkers pen + dunging area | 0.73m² |
| Baconers, pen + dunging area | 0.93m² |

## Trough space millimetres per pig

| | |
|---|---|
| Light Porkers | 200mm |
| Heavy porkers | 250mm |
| Baconers | 300mm |
| Gilts and Sows | 350mm |

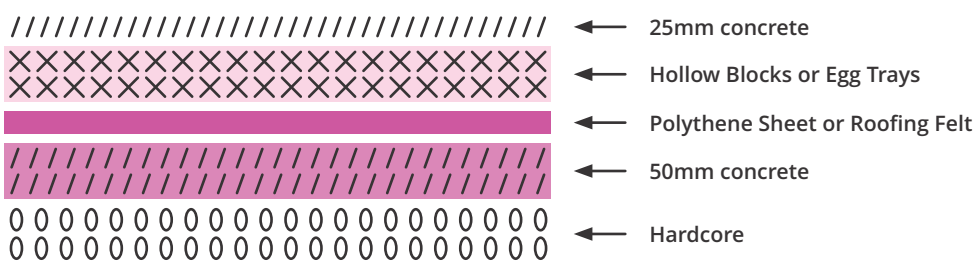
## Shade and ventilation

Buildings should face north-south to avoid too much sunlight penetrating the pens. This means that during summertime the sun will travel over the length of the roof. The pigs suffer easily from heat stress and this has a direct impact on feed intake which will lead to lower growth rates.




## Insulation

It is not necessary to insulate walls and roofs but insulating the floor of the pig house can protect the pigs against cold and damp. Pigs lying on uninsulated floors can suffer badly from rheumatism, and other conditions of the joints, and can lose the use of their legs. Below is a figure that shows how an insulated floor can be constructed.




Polythene sheeting helps prevent damp rising through the floor and hollow bricks or egg trays provide insulation.

The surface of the floor should be taken into consideration. If the floor is too smooth it will cause the pigs to slip, and a rough, sharp finish can cause damage to feet, legs, and udders. The top layer of concrete should be finished off with a wooden float to achieve the correct surface finish.

## Choosing where to build the piggery

- The site should not be too cold. E.g. building the pig house next to a dam.
- A slope will help with drainage. The farrowing pens should be at the top of the slope and the fattening pens should be at the bottom.
- The pig house should be kept away from boreholes or other sources of clean water to prevent the effluent of the pigs seeping into the water supply.
- Do not build under high tension electricity wires.
- Avoid poorly drained and low lying areas which can be waterlogged during the rainy season.
- Make provision for the effluent of the pigs. Pig manure can be used successfully as fertilizer for plants.
- The pig house needs to be divided into different buildings depending on the production cycle

Food store ► Dry sows ► Farrowing ► Rearing ► Finishing ► Slaughter

## Feeding in the sow unit

### Water

Water has a direct impact on feed consumption. Clean, fresh, cool drinking water should always be freely available for optimal production.

### Feed products

Feed must be fed ad lib (free access to feed at all times) to ensure optimal production and growth.

| BIRTHING HOUSE | TARGETS |
|---|---|
| Piglets per sow | 12-14 |
| Live Births per sow | 11 |
| Stillbirths | < 7% |
| Mummified piglets | < 1.5 % |
| Older sows with < 9 piglets | < 12% |
| Young Sows with < 9 piglets | < 15% |
| Weaning Percentage | 90% |
| Pre-weaning mortalities | 10% |
| Piglets weaned/litter | 10 -12 |
| Litter/sow/year | 2.35 |
| Piglets weaned/sow/year | 23.5 |

## Conclusion

The **FPPS system** is a tool that if implemented correctly can result in a successful and sustainable income to a producer.

New technology and expert advice are at the fingertips of a producer. Feedmaster is at the forefront of modern formulated feeds and these feeds are specifically formulated for each phase of the production cycle.

### Our logo says it all... Your Quality Solution!!!

For further information please visit our website at www.feedmaster.com

A pig cost calculator will also be available on our web page.

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# OUR TEAM OF SKILLED TECHNICAL ADVISORS & NUTRITIONISTS

**Danie de Lange**
Technical Advisor
Hardap
081 128 8713

**Christo van Zyl**
Technical Advisor
North
081 147 4199

**Richard Peens**
Technical Advisor
East
081 045 0837

**Joubert de Wit**
Technical Advisor
!Karas
081 128 1518

**Beata Mudjanima**
Technical Advisor
North - Communal
081 396 5383

**Frank Kanguatjivi**
Technical Advisor
Communal areas
081 127 3029

**Markus du Plessis**
Technical Advisor
& SME Development
081 635 4061

**Drikus Delport**
Technical Manager
Namibia
081 125 6400

**Jasper Blaauw**
Technical Advisor
Namibia
081 122 5515

**Claudia Mack**
Nutritionist Ruminant
Namibia
061 290 1312

Tel: +264 61 290 1300
info@feedmaster.com.na
www.feedmaster.com.na