

# FEEDING REPLACEMENT BREEDING GILTS



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Replacement gilts are the breeding herd of the future and should get the best possible treatment. Gilt nutrition during development has a significant impact on the early and lifetime performance of females. The goal of this phase is to meet nutrient demands for:

- 1) adequate protein growth,
- 2) adequate bone/skeletal development,
- 3) adequate reproductive tract development, and
- 4) sound feet and leg structure.

Gilt development and management begin in the early stages of a gilts life and ends when the gilt completes her first lactation (Boyd et al., 2002). The goal is to have an average daily gain from birth to first service of between 0.61 to 0.77 kg/day, with 0.70kg/day as a guideline. PIC's recommendation is to feed replacement gilts ad libitum from birth to breeding. If the average daily gain of the gilts as a group deviates from the desired growth rate, the diet composition should be altered rather than the feed allowance. Restricted feeding can lead to increased variation in the size of the gilts within a group and is thus not recommended.

## FEEDER SPACE AND WATER INTAKE

Ensure ample feeder space for easy access to the feed. The general allowance, with ad libitum feeding regimes, of at least 5 cm feeder space per replacement gilt should be sufficient. One feeder space is equivalent to the shoulder width of the biggest gilt in the group. Allocate a maximum of 8 gilts per feeder space. Good quality cold water is a critical nutrient for pigs. Insufficient access to water will restrict feed intake and reduce growth performance. Generally, pigs will consume 3 litres of water for every one kg of feed consumed. The nipple drinker height should be equal to the shoulder height of the smallest gilt in the group. Allow one nipple drinker for every 10 pigs.

## GILT ELIGIBILITY

The minimum individual gilt weight at breeding is 135 kg with the maximum breeding weight at 160 kg. The ideal group average should be between 145 to 155 kg at first mating. Breeding weights above 160 kg can lead to over conditioned sows and the lifetime maintenance requirements of these sows will be above average. These over conditioned females tend to experience increased weight loss during lactation, due to low feed intakes, and increased chances of locomotor problems, and consequently a higher chance of early culling. Below 135 kg there is a reduction in prolificacy, with a parity 2 dip almost a certainty. Gilt age at 1st mating: from 29 weeks of age if all the above recommendations are met.

## SUMMARY OF NUTRIENT REQUIREMENTS FOR GILT DEVELOPMENT

The key differences between a gilt development diet and a market gilt diet are:

- 1) A gilt development diet includes vitamins specific for reproduction purposes and hoof health (i.e. folic acid, vit E, biotin, etc).
- 2) Vitamin and trace mineral recommendations are higher than commercial recommendations in order to not limit the gilt for reproductive function (vit A, Zn, Se, Mn).
- 3) Higher Ca and P levels compared to market gilts.

We normally recommend a dedicated gilt development diet from 11 weeks of age until the point of breeding. However, the real difference in nutrient demands for gilt development are applicable from 60 kg live weight (see table). An adjustment in the Lysine: Energy ratio, halfway through the gilt rearing period, is recommended, if practically possible. A flush diet, for approximately the last 7 days prior to breeding, is also desirable.

## NUTRIENT SPECIFICATIONS

Market vs Replacement gilts

NUTRIENT	UNIT	60 KG - MARKET	60 KG - BREEDING
Total Calcium	%	0.60 – 0.50	0.70
Av Phosphorus	%	0.26 – 0.24	0.35
Vitamin A	IU/kg	6615 - 5510	9920
Vitamin D	IU/kg	1215 - 1015	1985
Vitamin E	IU/kg	33 - 28	66
Vitamin K	mg/kg	3.3 – 2.8	4.4
Choline	mg/kg	0	660
Niacine	mg/kg	40 - 31	44
Riboflavin	mg/kg	5.7 – 4.9	10
Pantothenic Acid	mg/kg	20 - 17	33
Vitamin B12	mcg/kg	26 - 22	37
Folic Acid	mcg/kg	0	1325
Biotin	mcg/kg	0	220
Thiamine	mg/kg	0	2.2
Pyridoxine	mg/kg	0	3.3
Zinc	PPM	120 – 100	125
Iron	PPM	80 – 66	100
Manganese	PPM	30 – 25	50
Copper	PPM	12 – 10	15
Iodine	PPM	0.4 – 0.33	0.35
Selenium	PPM	0.3 – 0.25	0.30

A functional gilt house where the gilts are kept in their age groups from ± 11 weeks of age (see picture).



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