



Integration Advice



HÜLSENERGER ZUCHTSCHWEINE

a company of the SCHAUMANN Group



Accurate planning – successful production

The market demands increasingly larger and more even batches of piglets with a uniform health status. By working in a 3-week production rhythm piglet producers can supply the market with the desired piglet batches. But in the long term the production system can function successfully only if the necessary breeding of replacement gilts is done with care.



Our tip:

Look at your bought-in gilts as an investment in the future. At an annual replacement rate of 35 to 45 % gilts form are the foundation of your entire herd. By ensuring a sufficiently long

integration period, extending for a least six weeks and divided into two phases, you can strengthen this foundation, with lasting benefits.

Proper integration of gilts is the key to success

HÜLSEBERG BREEDING PIGS are high performance animals bred by recognised genetic procedures and strictly selected.

HÜLSEBERG BREEDING PIGS will develop their full potential on your farm if you pay close attention to the measures needed for successful integration of new breeding animals into the herd.

► Objectives of integrating gilts

- Acclimatising the gilts to the microbial flora of the indigenous herd and protecting the farm from extraneous pathogens
- Getting the gilts used to new people
- Implementation of the necessary vaccination measures
- Control of the onset of puberty
- Time-controlled successful mating and integration of the gilts into the proposed sow group
- Realising the animals' full reproductive potential

How to create the best conditions

Before arrival of Hülseberger breeding pigs

► How do you determine your gilt requirement?

Depending on farm size and herd management, the annual gilt requirement is usually 35 – 45 % of the existing herd of production sows.

This number is easy to calculate and facilitates long-term supply planning. The requirement level is not dependent on the price of either sows or piglets and, providing the lowest performing sows in the herd are systematically

culled (active replacement), the proportion of new gilts should not fall below this level. Sows that are below the farm-specific efficiency index should be continuously removed from the herd. In this way you build up a high-performing herd.

How to calculate the gilt requirement

$$\frac{\text{Litters per sow/year} \times \text{number of sows in herd}}{\text{Lifetime farrowing rate}} = \text{gilt requirement}$$

Example: herd of 200 sows

$$\frac{2.3 \text{ litters/sow/year} \times 200 \text{ sows in herd}}{5.5 \text{ litters/sow lifetime}} = 84 \text{ gilts/year (42 \%)}$$

► How to optimise delivery frequencies?

We help you find a suitable supplier. We plan the delivery frequencies based on your production rhythm, which at the same time positively impacts on the sexual development of the sows.

Our tip:

The fewer deliveries the better. By keeping the number of deliveries low you improve the health status of your breeding herd.

Buying staggered-age gilts can further reduce delivery frequencies.



How to create the best conditions/integration

Housing requirements for new gilts

To prevent disease outbreaks among the new arrivals and to protect the established herd from imported extraneous pathogens, it is necessary to house the new gilts in separate accommodation. Segregation also complies with legal regulations regarding disease control.

The main criteria

Temperature:	(no litter) 20 °C
Space requirement:	min. 1.85 m ² , preferably 2.0–2.5 m ² /gilt
Gap width:	max. 17 mm
Group size:	6–8 gilts per pen
Pig:trough ratio: 1:1	Pig:drinker ratio: 5:1
Lighting:	min. 100 Lux/m ² , 14 h/day
Separate pens for contact animals	

Our tip:

Use simple solutions, for example in the form of free-standing huts and other structures. Housing for the new gilts should be sited as far away as possible from the herd.

In the absence of specific reasons to the contrary, the building should have a separate entrance for segregated servicing.

Phases of integration

Bought-in gilts should be integrated gradually over at least a 6-week period

► Isolation phase

On arrival the new gilts are placed in cleaned and disinfected housing for a minimum 14-day isolation phase to reduce their susceptibility to disease and the risk of importing pathogens into the breeding herd. If, despite all the precautions, animals fall ill during the isolation phase they can be selectively treated and kept segregated until they have recovered before joining the breeding herd.

Our tip:

Daily human contact with the animals in a calm atmosphere is an essential part of the adaptation process. It makes the gilts easier to handle and encourages the development of immunity, visible oestrus and high conception rates.

► Adaptation phase

The adaptation phase ensures that the new gilts are gradually and systematically exposed to the specific microbial flora of the breeding herd. The currently best method is the introduction of contact animals (one clinically normal young pig per 5–7 gilts). Contact with sow or piglet faeces and sweepings from the feeding passage support adaptation and immunisation.

Our tip:

In the event of any clinical or reproductive disorders the gilts must be treated. Depending on the farm set-up and infection pressure in the herd, the recommended approach is immediate antibiotic metaphylaxis on arrival or metaphylaxis from 7 days before to 7 after joining the breeding herd.



Integration

Integration of Hülsenberg gilts

Week	Isolation 1 → 2 → 3	Adaption phase → 4 → 5 → 6	service centre (SC) → 7
Measure	<p>Quiet period, no contact with the established herd</p> <p>Separate clothing (overalls, boots) and implements</p> <p>Intensive human-animal contact</p> <p>Observe and record the first oestrus transport</p>	<p>Systematic introduction of contact animals, one clinically healthy young pig per 5 – 7 gilts, no circo virus-infected piglets</p> <p>Contact with fresh faeces from suckling piglets or sows from the main herd and sweepings</p> <p>From 42 days old transfer to the service centre</p> <p>Wash gilts prior to rehousing</p>	<p>Boar contact</p> <p>Oestrus control</p> <p>Integration into the proposed sow group, time-controlled mating</p> <p>First service: minimum age 240 days, min. weight 140 kg</p> <p>High-level feeding (flushing) before the first service</p>
Objectives	<p>Protect the established herd from extraneous pathogens</p>	<p>Acclimatise the gilts to the microbial flora of the herd</p> <p>Development of a stable endogenous immunity</p> <p>Stimulation of oestrus</p>	<p>High conception rates</p> <p>Realise the full reproductive potential</p>
Vaccination and metaphylactic measures	<ul style="list-style-type: none"> - Initiate the farm-specific vaccination programme (e.g. PRRS, influenza, APP) - In week 3 after arrival, booster vaccination against erysipelas/parvo - Endo- and ectoparasite prophylaxis - Antibiotic metaphylaxis - Completion of basic immunisation 		
Biotechnical measures	<p>Oestrus synchronisation, PMSG injection, ovulation-inducing injection</p>		



Prevention – for stable health

Optimal feeding of Hülseberger breeding pigs

Hülseberger multiplier and rearing farms feed their animals entirely in accordance with SCHAUMANN feeding recommendations. A successful feeding concept also includes factors other than nutrition such as an adequate and hygienically safe water supply, optimal fodder hygiene and high-quality feed components.

The feeding strategy during the integration phase should boost the immune system and influence the physical and hormonal development, constitutional stability and longevity of the breeding sows.

Please consult your SCHAUMANN adviser about the exact composition of your feed mixtures.

Requirements for a sound feeding regime

Development phase	Weight category (kg)	MJ ME per kg complete feed	Lysine (%)	Feeding strategy kg/pig/day
Growing piglets	7 – 28	14.6 – 13.0	1.5 → 1.1	ad libitum
Gilts – rearing phase I	29 – 65	13.0 – 12.6	1.0 → 0,9	1.2 – 2.3
Gilts – rearing phase II	66 – 104	12.6 – 12.2	0.85	2.4 – 2.7
Gilts – integration	105 – 135	13.2	0,7	2.5 – 3.0
Pregnant gilts	136 – 190	12.2	0.75	2.5 – 3.7

Lactation or early gestation rations, often used instead of a specific integration diet, do not meet the requirements of hyperprolific sows, the former because it supplies insufficient protein and the latter because it does not have a high enough energy content.

Vaccinations

HÜLSEBERG BREEDING PIGS undergo a specific vaccination regime. Gilts and young boars are vaccinated once with a combined parvovirus/erysipelas vaccine. Depending on the infection risk and any regional epidemiological factors, further vaccinations are carried out against PRRS, influenza and other diseases. The type and timing of the vaccinations is recorded on the delivery note so that you can plan subsequent measures with your farm veterinarian.

Our tip:

Farm-specific measures such as vaccinations and endo/ectoparasite treatment can be started from the second week after delivery – the optimal time for the erysipelas/parvo booster vaccination is the third week. All vaccinations should be completed at least seven days before the start of oestrus synchronisation or the proposed service date. After that the young animals are subject to the vaccination regime of the productive herd.

... and high reproductive performance

Hygiene

High standards of management hygiene, biosecurity and regular clinical and diagnostic health monitoring are the main strategies used to reduce the risk of importing and spreading disease on the farm.

Our tip:

Do you know the health status of your herd? This is an important aspect for selecting a suitable supplier and coordinating vaccinations, especially before the first delivery.

Zootechnology

The sexual development of gilts can be stimulated by suitable zootechnical measures and precision feeding. Planning delivery times for new gilts to fit in with your production cyclogram enables you to integrate the gilts into the respective insemination group at just the right time.

Our tip:

Record the onset and course of oestrus and the oestrous behaviour of the gilts.

Measures for oestrus stimulation also include high light intensity (14 to 16 hours) and controlled contact with the boar.

Key data for sexually mature gilts

Parameter	Objective
Age at first service/ first insemination (FI)	earliest: 220 days ¹⁾ better: 240 days latest: 260 days
Number of oestruses before FI	minimum: 1 better: 2 – 3
Body mass at FI	minimum: 135 kg better: 140 – 150 kg
Mean backfat thickness	15 – 18 mm

¹⁾When using hormonal oestrus synchronisation this is the earliest possible day for giving the first oral dose of Regumate®-Altrenogest

Timetable for the integration of Hülseberger Gilts

Purchase · Gilts aged 180 days	By following the timetable below you employ zootechnical measures during the integration phase of the gilts while at the same time securing high conception rates for your farm.
+ 21 Tage · Gilts aged 201 days · Pen and partner change in the segregated housing	
+ 21 Tage · Gilts aged 222 days · After the 6-week integration phase the gilts are moved to the insemination centre · Oestrus synchronisation and preparation for insemination	
+ 21 Tage · Gilts aged 243 days · Insemination	



Integration advice for boars

The sex-determined behavioural pattern of boars demands that the attendant takes even greater care to establish contact and get the boars used to their new environment in a manner that is appropriate to the animals' temperament. Boars should be used for mating not earlier than the fourth week. When using a young boar for natural mating it is important not to select a nervous gilt but a receptive sow of similar size as the boar.

During the first attempts at mating the attendant should be quiet and calm. Agitation would be quickly transmitted to the boar, causing stress and inevitable mating failure. Gently manoeuvring the boar into the correct mating position and perhaps guiding the penis helps establish trust in the attendant. Vaccinations or treatments should never be given during copulation but only in the boar pen. During the first six months young boars can be used up to twice a week for mating, older boars up to four times. Never leave a young boar unsupervised in a group of sows because, unlike mature boars, he would be exposed to considerable agitation and possibly biting. The same applies to teaser boars.

Housing

The pen size for boars must be at least 6 m², or 10 m² if the pen is also used for mating. Totally or partially slatted floors are prohibited as they are not suitable for boars. Whatever the type of flooring used, it should be dry and non-slip. Perforated concrete floors covered with untreated peat as litter has proved suitable.

For outdoor systems we recommend a stress-resistant terminal sire. If integration falls in the winter months a dry, draught-free and insulated shelter should be provided. The young animals are not yet able to adapt to a harsh climate. Once the boars have reached a body mass of 200 kg or more, a centrally located boar pen with hut is suitable for attracting and checking outdoor sows on heat.

Boars should never be fed just before mating. Only animals in breeding condition can perform satisfactorily.

Hülsenberger Zuchtschweine GmbH in collaboration with SCHAUMANN provides its customers with effective advice in all areas of management.



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