



# Enrichments for phase of production

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Environmental enrichment plays a different role as pigs grow and age. For example, enrichment for growing pigs focuses mainly on reduction of boredom and stress, improvement of performance, and prevention of damaging behaviours, whereas enrichment for gestating sows focuses mostly on alleviating hunger-related

stereotypic behaviours. This affects the preferences for the types of enrichment in pigs of different ages. More information is provided on the enrichment preferences for each phase of production.

## Sows around Farrowing Time

The day before farrowing, sows have an intrinsic need to perform nest-building behaviour. In farrowing crates, an elevated box of long straw, peat, or hay within reach of the sow can allow for some nest building. Sows provided with nesting materials have a smoother farrowing process including less stillborns, experience less stress, and show better maternal behaviours leading to lower piglet mortality and better piglet growth rate. It is also easier to observe which sows are going to farrow based on the use of nesting materials.

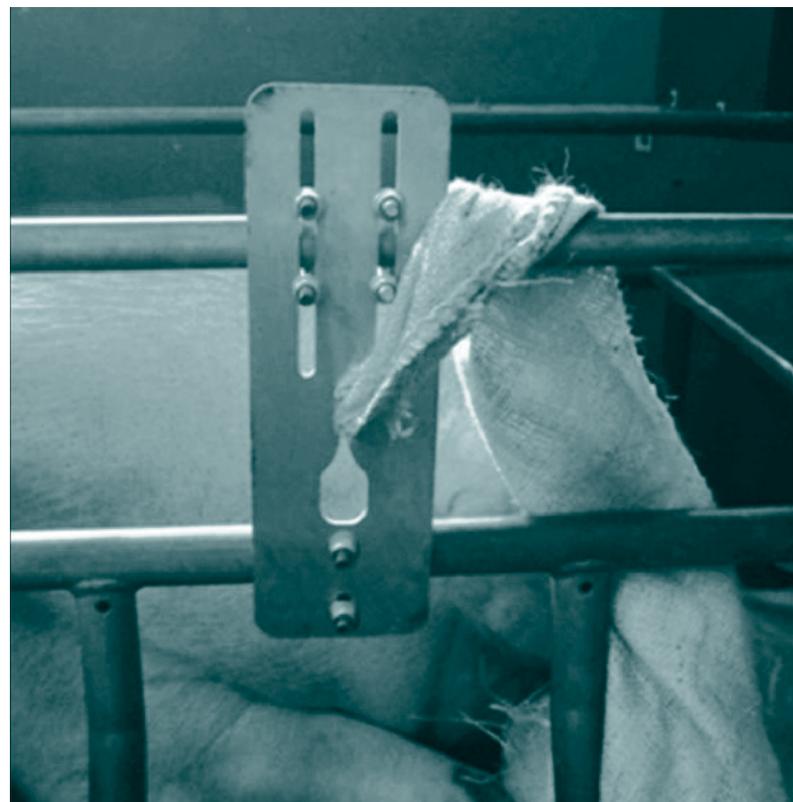
**Overall Preference:** straw, other substrates, burlap

## Lactating Sows

Lactating sows can easily overheat, so straw is less suitable once farrowing is finished in the summer. Lactating sows also need to eat a lot, so additional edible enrichments are not ideal. Instead, items to manipulate to reduce boredom could be more

suitable, such as a burlap sack or rope fixed to the crate within reach of the sow. Being able to have freedom of movement and unobstructed mother-offspring contact may be more biologically relevant during this time, but this requires a change in the layout design of farrowing crates.

**Overall Preference:** freedom of movement, extra space, burlap, rope





## Nursery

Providing effective enrichment in the nursery is very important to prevent the onset of tail biting and to prevent later severe tail biting. It is especially important in the nursery phase to renew loose substrates or change enrichment items regularly to maintain interest. Enrichment should also be exploratory by multiple pigs at the same time.

Straw, peat, wood shavings, and silage increase positive behaviours such as exploration and play. Corn silage might be a better option than straw for the manure handling system. Suspended objects are generally better than floor objects, except for rooting cones and a wooden beam standing vertically on the

floor, which pigs spent more time with than suspended objects. Rope is the preferred suspended object, but it must be replaced often. Rope and burlap are preferred in strings versus knotted, though knotted versions last longer. When choosing commercial toys, PorkyPlay is preferred over BiteRite.

Sensory enrichment can be useful in nursery pigs. For example, garlic oil increases nursery pigs' interest in a cotton rope as compared to a non-scented rope, and scented newsprint increases the number and duration of interactions compared to unscented newsprint.

*(Enrichments...cont'd on page 8)*



## Piglets

Suitable enrichment material for piglets could be a small amount of easily chewable substrate. Piglets prefer malleable materials, such as rope and burlap. Commercial toys should be sized in such a way that piglets can take it in their mouth. On the other hand, the quantity or size of materials or objects needs to be large enough to allow multiple piglets to use it, similar to synchronized suckling bouts.

Providing loose substrates such as sawdust, shredded paper or chopped straw can help piglets with thermal regulation and drying off after birth.

Attaching cloths, ropes and tubes to a creep feeder stimulates piglets to explore the feeder, which may increase eating time post-weaning. Adding ingredients such as celery, breakfast cereals, peanuts, or black soldier fly larvae can increase piglet's pre-weaning feed intake, and adding sand as a rooting substrate inside the feeder will increase the time piglets spend exploring the feeder.

Social enrichment to piglets shows a lot of promise, such as co-mingling of different litters prior to weaning, or positive human interactions. Pre-weaning socialization can reduce aggression later in life, and positive human interaction pre-weaning makes pigs easier to handle throughout their lifetime.

Providing opportunities for piglets to play, through increased space allowance and a rotation of physical enrichments, improves disease resilience later in life.

An important note: Once enrichment has been given in the pre-weaning environment, it is important to continue to provide enrichment to pigs in pens thereafter. Moving a pig from a more to a lesser enriched environment can have negative consequences for the pig.

**Overall Preference:** straw, bedding, burlap, rope, shredded paper, positive human contact, extra space, social contact with other litters



**Overall Preference:** straw, bedding, fresh soft wood (birch wood is best), food enrichment (beet, grass, turnip), straw or mushroom compost in racks, rope, shredded paper, rubber, soft plastic, hard wood, PVC pipe, balls

### Boars and Replacement Gilts

Breeding and teaser boars get released from their pen on a regular basis and experience human interaction and social contact with females, which can be a good type of enrichment. However, the rest of the time boars are housed in barren environments, often alone, so they need enrichment in their pen. Boars seem to have similar preferences as grow-finish pigs, with substrate bedding being the best option, and suspended cotton ropes being better than rubber chew sticks. For gilts arriving newly to a farm, providing edible substrate can help them get used to the presence of humans. In addition, both boars and gilts are restrict-fed, so they may have similar challenges to gestating sows and potentially display redirected foraging behaviour (stereotypies). Recommendations for gestating sows may therefore also be useful for boars and replacement gilts.

**Overall Preference:** Straw bedding, straw in rack, positive human interaction, social contact with other pigs, hanging rope, rubber chew sticks, BiteRite, Tri-Star Standard Toy, hanging wood, smaller balls, PorkyPlay

*(Enrichments...cont'd from page 7)*

**Overall Preference:** straw, wood shavings, wood bark, burlap, rope, newspaper pieces, rubber hose, commercial toys, rubber mat.

### Grower and Finisher

Due to limited space in the finisher phase, provide loose enrichment materials or multiple objects that are widely available and accessible throughout the pen. Straw is best, especially when provided in deep bed systems. Other types of bedding are also great for enrichment. Racks with enrichment such as straw, mushroom compost, silage, or grass work well in slatted floor systems, but they need to be accessible to not increase aggression. These racks provide a high level of engagement with the enrichment material and reduces skin lesions, tail biting and water wastage (due to less playing with the drinker). A rooting tower filled with organic material such as straw works to a lesser extent. Wooden logs hung from a chain and provision of newspaper sheets several times per week are options too. Simple objects like chains, balls and commercial toys should have supplemental enrichment that involves destructible or rooting materials.



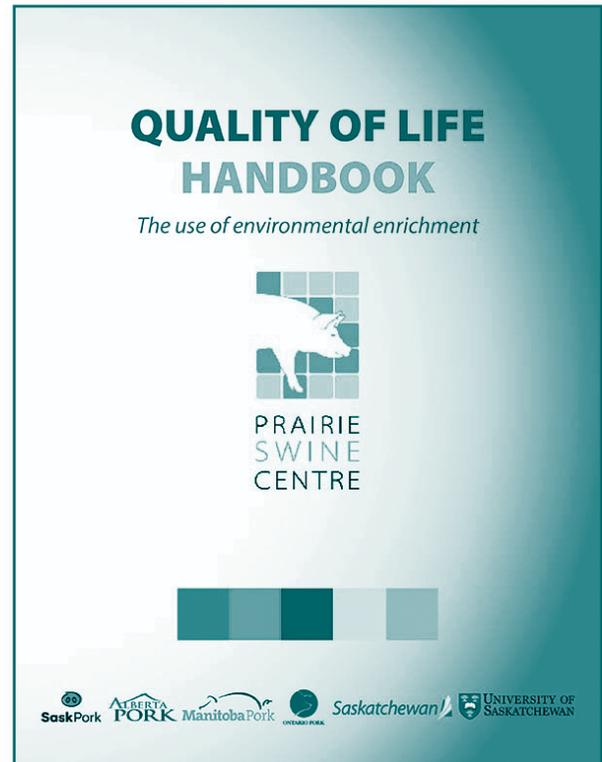
“ Choosing the best enrichment for each phase of production can improve the quality of life for pigs.”

### Gestating Sows

Gestating sows are very feed motivated resulting in intense foraging behaviour. Without proper enrichment, stereotypic behaviour such as sham chewing may develop. Suitable enrichment for gestating sows includes feedstuffs and other edible enrichment, as well as objects that are chewable and destructible. Providing a variation of enrichment types can further stimulate sows to perform different repertoires in foraging behaviour. Due to dominance hierarchies in gestating sows, enrichment should be plentiful and accessible to all animals. Bedding such as straw is again the ideal enrichment. Racks with enrichment such as straw, mushroom compost or silage work in slatted floor systems, but they need to be accessible to not increase aggression. Sows usually prefer rope over wood or a chain. Simple objects like chains, balls and commercial toys should have supplemental enrichment that involves destructible or rooting materials.

Sow welfare was improved with a call feeder as cognitive enrichment. Cognitive enrichment should be researched more as an option for enrichment of gestating sows.

**Overall Preference:** Straw bedding, straw in rack, positive human interaction, EasyFix Astro, hanging rope, BiteRite, Tri-Star Standard Toy, hanging wood, smaller balls, PorkyPlay



The Quality of Life handbook is an excellent resource for producers looking to incorporate enrichment throughout their operation. It provides practical, cost effective strategies that will improve the pigs quality of life.

