

SOW ENRICHMENT BLOCK

TECHNICAL INFORMATION • PAN PACIFIC PORK EXPO 2016



20kg Sow Enrichment Block – loose within a pen.

The Sow Enrichment Block is formulated to provide sows the opportunity to engage in foraging behaviour and generate a sense of satiety (fullness) which reduces inter-sow aggression, particularly at feeding time.

KEY FEATURES

- Encourages natural foraging behaviour.
- Reduced aggression around feed times leading to less injuries.
- Formulated for attractiveness, hardness and longevity.
- Easy to use – 20kg block can be loose or fixed within the pen.
- Edible cardboard packaging.
- Developed by Pork CRC in partnership with Ridley Agriproducts – the leaders in block technology.

ENRICHMENT FOR SOWS

Group housing systems may lead to compromised welfare when unfamiliar sows are mixed into group gestation pens.

Key behaviours such as foraging and exploration are limited in group systems and this is heightened over access to food. Environmental enrichment has been shown to reduce and prevent abnormal and harmful behaviour as well as improve health and performance (Durrel et al; 1997).

Sows provided with the Sow Enrichment Block(s) had less fresh injuries than the control sows at day 3 of treatment (Fig1 – see overleaf). Fresh scratch scores are the result of a recent aggressive bout and these results suggest that sows treated with one or two Sow Enrichment Blocks are less aggressive around the time of feeding.



Blocks are poured in cardboard molds.

ACTIVITY (TIME SPENT)	SOW ENRICHMENT BLOCK VS. CONTROL GROUP
Lying	50% increase
Chase	62% reduction
Standing	10% reduction

CONTACT

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THE RESEARCH

Initial research by SunPork Farms, funded by the **Pork CRC** (Project 1C-115) found that around feed times, sows treated with the Sow Enrichment Block engaged in **significantly less aggressive behaviors** than those with no enrichment treatment (in the first 4 days post mixing). Sows treated with the Sow Enrichment Block exhibited **less chase behavior** and spent **more time lying down** than sows with no enrichment treatment.

In this study sows fed a high feeding rate (4.0kg/day of gestation diet) exhibited similar behaviours to sows fed 2.3kg/day and provided with the Sow Enrichment Block (Table 1).

EFFECT OF HIGHER FEED LEVELS OR SOW ENRICHMENT BLOCK ON SOW BEHAVIOUR			
ACTIVITY (MINUTES)	TREATMENT		
	CONTROL GROUP	HIGH FEED GROUP	SOW ENRICHMENT BLOCK GROUP
Chase	0.29 ^a	0.08 ^b	0.11 ^b
Foraging	28.5	25.7	25.2
Fight time	13.9	15.6	16.4
Lying	9.1 ^a	13.3 ^b	13.7 ^b
Standing	50.6 ^a	45.9 ^b	45.3 ^b
Agonistic behaviour	1.01	0.81	0.73

Table 1: Effects of higher feeding levels or provision of a Sow Enrichment Block™ on the activities of sows in the four days. ^{ab} Treatment means within a row that are different differ significantly (P<0.05)

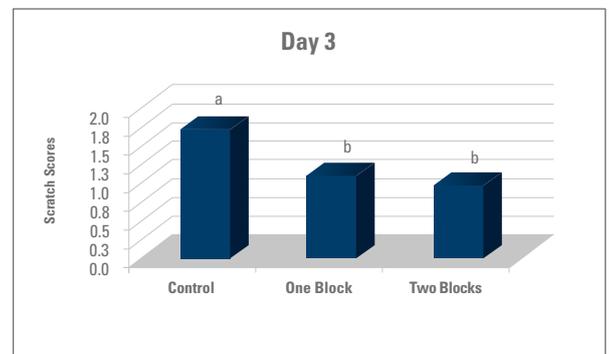
- Activities recorded in the 60 minutes after feeding on the first 4 days after mixing
- Control group fed 2.3kg per day per sow
- High feed group fed 4kg per day per sow
- Sow Enrichment Block group fed 2.3kg per day per sow

Sow Enrichment Block was then commercially tested in a 1200 sow unit. Unfamiliar sows were newly mixed in groups of 15 post insemination. Sow Enrichment Block were used on the day of mixing (the most important time to reduce aggression). All treatments received 2.5kg/day of gestation diet.

Fig 1: Mean number of fresh scratch injuries scored on Day 3 after mixing control sows and sows treated with One or Two Sow Enrichment Block(s).

Reference: Durrell, J., Sneddon, I. and Beattie, V. (1997) Effects of enrichment and floor type on behaviour of cubicle loose-housed dry sows. *Animal Welfare* 6: 297-308.

^{ab} Treatment means with different superscripts differ significantly (P<0.05).



Proposed 5kg Block – Weaners.

BLOCK USE IN ALL STAGES OF PRODUCTION

Pork CRC are conducting further research into the use of the enrichment blocks in other stages of pig production and has an international patent pending. Initial observations in nursery pigs indicate beneficial changes in behaviour post mixing.

Different stages of production require different block formulations in order to cater for attractiveness and hardness requirements of the targeted pigs.

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