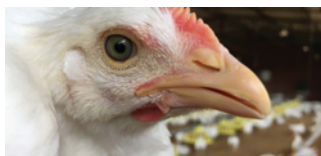


# New strategy for animal-friendly beak treatments in broiler breeders - 2

The benefits of Natural Beak Smoothing are clear. But poultry integrations and hatcheries often want to see case studies from other poultry companies that have already made the switch.

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[www.roxell.com/natural-beak-smoothing](http://www.roxell.com/natural-beak-smoothing)

Roxell and its distributors have realised many successful installations in previous years. In 2020, they launched a test in collaboration with Couvoir Perrot, a hatchery in France. The French division of Aviagen monitored the test and were one of the impartial parties assessing the beaks.

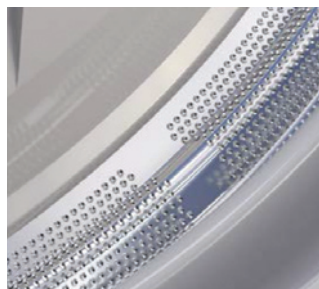


There was a test set-up with Natural Beak Smoothing at broiler breeder company Enterprise EARL Chevillard, where the broiler breeders were monitored over 20 rearing weeks. After this period, they were monitored up to week 64.

In this article, the results are compared between the house with IR treatment (A), the house with Natural Beak Smoothing (B) and the house without treatment (C) (see Table 1).



A standard Roxell Vitoo feeder pan (shown on the left) and with Natural Beak Smoothing (right).



The five test partners were le Couvoir Perrot (hatchery), Enterprise EARL Chevillard (broiler breeder company), Aviagen (breeder), Sodimel (Roxell distributor) and Roxell (Natural Beak Smoothing developer).

The test took place in three houses at Saint-Malon-sur-Mel, France.

## Evolution of beak shape

The test partners assessed the beaks of the hens at two points during the rearing period – week 14 and week 20 – and looked at:

- Visual checks for two aspects: overbite and sharpness of the beaks.
- Possible score: poor, acceptable and excellent (Fig. 1).

It was concluded that only in house B with Natural Beak Smoothing did the scores for beaks significantly improve between week 14 and week 20:

- House B: in week 20, 92% were

given a score of 'acceptable' or 'excellent' of which 51% 'excellent'.

- House A: in week 20, 76% were given a score of 'acceptable' or 'excellent' of which 27% 'excellent'

- House C: in week 20 most scored 'poor' due to excessive overbites and sharp beaks.

## Mortality rates

The difference in mortality rates between the three houses was insignificant in this test due to two reasons:

- The chicks had diverse backgrounds – up to four different batches per house.
- The grandparent stock did not have identical ages (between 30 and 55 weeks).

Couvoir Perrot shared that, in earlier tests, skipping the IR treatment resulted in 0.5% fewer deaths among day-old chicks.

## Feed savings

During the test, feed consumption was monitored per hen, per day in a period of 20 rearing weeks (Table 2 and Fig 2). It was concluded that hens with beautifully smoothed beaks waste less feed.

A comparison:

- House B: savings of 6.3g/hen/day compared with House A.
- House B: savings of 15.8g/hen/day compared with House C.
- House B: 10,170kg/flock less feed used compared with House A or €3561/flock at a feed price of €350/tonne.
- House C: the hens had to remain one week longer in the rearing house due to uniformity problems and inadequate sexual development



## Bodyweight

It bears noting that hens with a low body weight always had a poor scoring beak. Therefore, there is a link between beak irregularities and difficulties with eating and drinking.

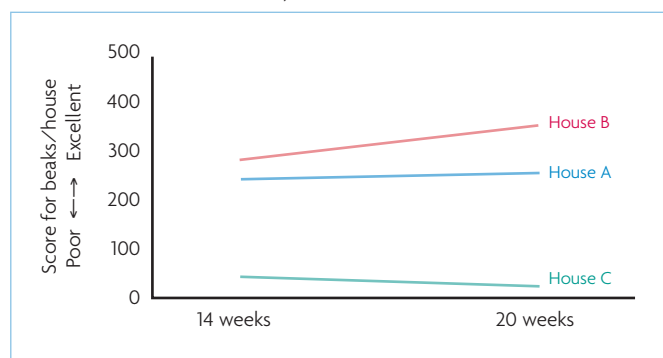
In all three houses, the body weight fell within the usual range at

*Continued on page 12*

Table 1. Test method with Natural Beak Smoothing.

	With IR (A)	Natural Beak Smoothing (B)	No treatment (C)
Type of beak treatment	IR treatment	No beak treatment	No beak treatment
Type of feeding system	Roxell Vitoo feeder pan Standard	Roxell Vitoo feeder pan with Natural Beak Smoothing	Roxell Vitoo feeder pan Standard
Breed of broiler breeders		Ross 308	
No. of day-old chicks	11,760	11,760	11,600

Fig. 1. Beak shape scores. House A: standard Vitoo/IR treatment, House B: Vitoo with NBS/not debeaked, House C: standard Vitoo/not debeaked.



	With IR (A)	Natural Beak Smoothing (B)	No treatment (C)
Feed per rearing house (tonnes)	113	102	110
Total feed consumption during rearing/hen (g)	10,120	9,233	11,438g incl. extra week

**Table 2. Feed consumption per hen/day during 20 rearing weeks.**

Continued from page 11 the end of the rearing period. However, it took House C one week longer to complete the rearing period and reach the targeted uniformity and sexual development.

- House A: average weight of the hens 2,356g after 20 weeks.
- House B: average weight of the hens 2,418g after 20 weeks.
- House C: average weight of the hens 2,321g after 21 weeks.

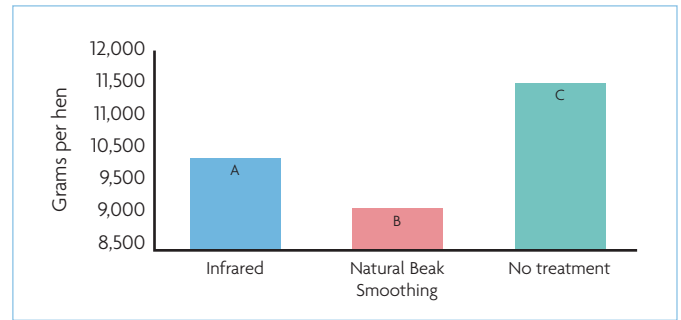
### Conclusion

The ultimate goal of the rearing period was successfully achieved: the house with Natural Beak Smoothing was the most uniform of all three houses after 20 weeks. To reach this result, the hens in the house with Natural Beak Smoothing used the least feed.

In general, this research showed

that the beaks remain growing continually:

- With Natural Beak Smoothing this is less of an issue because the beak is constantly maintained by the file in the bottom of the pan. It is a gradual process and in the second half of the rearing period the beaks were perfectly smooth. This gave this group of hens a head start in the production phase.
- With IR treatment, the scores for the beaks already began decreasing in the second half of the rearing period. This resulted in a poorer



**Fig. 2. Total feed consumption at the end of the rearing period.**

performance in the production phase compared with the hens with Natural Beak Smoothing.

- Without treatment the hens needed an extra week to get ready to move to the production period.

Pecking up feed is difficult with untreated beaks. After an extra week in the house, the uniformity of this group also fell within the usual range. ■

### Overview

The results of using Natural Beak Smoothing in the rearing period include:

- The shape of the beaks scores the best and improves throughout, which is not the case with IR treatment.
- Large savings on feed costs.
- Savings on recurrent treatment costs.
- This group of hens achieved the best uniformity.

Part 3 of this article will look at results during the production period.