



# *International Pig Topics*

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*Independent thoughts for independent minds*

## **CHINA BOUND**

*We visit two operations  
with European pigs.*



## **SPERM BOOSTER**

*A novel, nutritional  
boost for fertility.*



## **ON YOUR METAL**

*The choice of iron  
can be significant.*



## **AT THE TROUGH**

*A review of feeders  
currently available.*



## **PIGLET MORTALITY**

*Treatment programme  
to minimise losses.*



INTERNATIONAL PIG TOPICS

# Iron products - make the right choice

**A**t birth the newborn piglet has a limited reserve of the important mineral iron. In nature the young piglet is quickly able to supplement this from the soil, but in modern pig production the young piglet only has access to its mother's milk which is deficient of iron.

It is, therefore, essential to supplement the new born piglet's iron levels and this is normally done by

operation with economic parameters such as mortality, birth weight and daily live weight gain all better on the high health operation.

Birth weights and daily live weight gain were significantly different.

Daily live weight gain was the most meaningful basis for comparing the high and normal health farms as the average weaning ages differed significantly being 25.5 days for the

|                              | Gleptosil                           | 20% iron dextran |
|------------------------------|-------------------------------------|------------------|
| <b>Mortality</b>             |                                     |                  |
| Number of litters            | 50                                  | 50               |
| Number of piglets at birth   | 507                                 | 483              |
| Number of piglets weaned     | 438                                 | 414              |
| Birth weaning mortality (%)  | 13.6                                | 14.3             |
| <b>Weight gain</b>           |                                     |                  |
| Number of piglets            |                                     |                  |
| Mean birth weight (kg)       | 438                                 | 413              |
| Mean weaning weight (kg)     | 1.58                                | 1.53             |
| Birth weaning LWG (kg)       | 7.93                                | 7.35             |
| Average weaning age (days)   | 6.35                                | 5.82             |
| Birth weaning DLWG (g)       | 25.5                                | 25.4             |
|                              | 249                                 | 230              |
| <b>High health</b>           |                                     |                  |
| Gleptosil v 20% iron dextran |                                     |                  |
| Mortality                    | 0.7% benefit to Gleptosil           |                  |
| LWG                          | 9.2% benefit to Gleptosil (p,0.001) |                  |
| DLWG                         | 8.3% benefit to Gleptosil (p,0.01)  |                  |

Table 1. Results from the high health trial.

injecting the piglet with a compound rich in iron.

If this does not occur, piglets become anaemic and this adversely affects performance and in severe instances predisposes piglets to other problems such as diarrhoea.

This article reports on a major farm trial in Britain that was undertaken to compare two iron products that are used for treating piglets.

These were Gleptosil, which contains 20% iron dextran.

This study was undertaken on two farms of differing health status and the objective of the study was to determine what benefits or differences would appear in these two situations that could be attributed to Gleptosil.

Both farms were in the same region of Great Britain and under the same group management. Both farms used Newsham breeding stock and the stock used in the two trials was as identical as was practically possible.

One farm was of a high health status and the other was normal health status. Alternate litters from a total of 193 were injected with either Gleptosil or iron dextran.

Every piglet was identified and weighed at birth and again at weaning. Mortality was recorded.

The results of the trial are summarised in Tables 1, 2 and 3.

A clear benefit was seen from operating a high health management

high health and 21.0 days for the normal health operation.

It was perhaps not surprising that the mortality difference was not statistically different, as the observed level of difference would have required a trial involving over 5000 piglets to yield significance.

When it came to comparing Gleptosil and the 20% iron dextran product all measured parameters favoured the Gleptosil.

These parameters were mortality, weight at weaning, birth to weaning weight gain and daily live weight gain and the benefits were seen on both farms.

The weight gain measurements were statistically significantly different for the combined and high health groups.

The high health piglets particularly benefited from receiving Gleptosil and this may be associated with the very high growth rates that these piglets are capable of achieving, compared to normal health piglets.

A high growth rate demands high iron requirement. Gleptosil has been shown to make a full dose of iron rapidly available to the piglet and to be more rapidly absorbed than iron dextran.

With the economic benefits Gleptosil can provide, when it comes to choosing an iron product for use in piglets there can be only one choice.

|                              | Gleptosil                 | 20% iron dextran |
|------------------------------|---------------------------|------------------|
| <b>Mortality</b>             |                           |                  |
| Number of litters            | 46                        | 47               |
| Number of piglets at birth   | 418                       | 435              |
| Number of piglets weaned     | 356                       | 361              |
| Birth weaning mortality (%)  | 14.8                      | 17.0             |
| <b>Weight gain</b>           |                           |                  |
| Number of piglets            | 356                       | 361              |
| Mean birth weight (kg)       | 1.52                      | 1.49             |
| Mean weaning weight (kg)     | 5.34                      | 5.29             |
| Birth weaning LWG (kg)       | 3.82                      | 3.79             |
| Average weaning age (days)   | 21                        | 21.2             |
| Birth weaning DLWG (g)       | 182                       | 178              |
| <b>Normal health</b>         |                           |                  |
| Gleptosil v 20% iron dextran |                           |                  |
| Mortality                    | 2.2% benefit to Gleptosil |                  |
| LWG                          | 0.8% benefit to Gleptosil |                  |
| DLWG                         | 2.2% benefit to Gleptosil |                  |

Table 2. Results from the normal health trial.

|                              | Gleptosil                          | 20% iron dextran |
|------------------------------|------------------------------------|------------------|
| <b>Mortality</b>             |                                    |                  |
| Number of litters            | 96                                 | 97               |
| Number of piglets at birth   | 925                                | 918              |
| Number of piglets weaned     | 794                                | 77.5             |
| Birth weaning mortality (%)  | 14.2                               | 15.6             |
| <b>Weight gain</b>           |                                    |                  |
| Number of piglets            | 794                                | 774              |
| Mean birth weight (kg)       | 1.55                               | 1.51             |
| Mean weaning weight (kg)     | 6.77                               | 6.69             |
| Birth weaning LWG (kg)       | 5.22                               | 4.87             |
| Average weaning age (days)   | 23.5                               | 23.5             |
| Birth weaning DLWG (g)       | 219                                | 206              |
| <b>Normal health</b>         |                                    |                  |
| Gleptosil v 20% iron dextran |                                    |                  |
| Mortality                    | 1.4% benefit to Gleptosil          |                  |
| LWG                          | 7.1% benefit to Gleptosil (p,0.02) |                  |
| DLWG                         | 6.3% benefit to Gleptosil (p,0.02) |                  |

Table 3. Combined farms result.

