Does automatic supplementary feeding of suckling piglets automatically lead to higher weaning weights?

Prof. Dr. agr. Martin Ziron & B. Sc. Jasmin Hellbusch

On a practicing farming enterprise, the effects of two different feeding systems for suckling piglets – manual and automatic supplementary feeding – were tested.

At the time of the experiment, the farm held 450 producing BHZP sows. Stalling in was carried out in a 5-week rhythm; the piglets were weaned after a suckling period of on average 28 days. Piglet raising took place up to a weight of 8 kg.

The farrowing sections offered places for 104 sows. The floor covering consisted of Durofarm; warming plates were available for the piglets‘ nests. All in all, eight runs were examined.

The feed composition was identical for both examined feeding systems. From the third to the sixth day of life, MAT (BI Lactal Plasma, Schaumann) was added. From day 9 onwards, smaller amounts of Prestarter (Ferkelin Sweet CV, Schaumann) were mixed together with the MAT, and from day 18 onwards, the mixture was completely replaced by piglet raising feed 1 (Schauma Wean Plus); this was carried on until the 5th day after weaning.

Aim of the examination was to determine whether the „Nutrix+“ automatic feeding system of WEDA – as opposed to manual supplementary feeding – has a positive effect on the weaning weight of piglets. In the trial, feed up-take of 20 litters was examined and the collected data was documented and evaluated, also with regard to the weight development of the piglets. Here, reporting date of the data collection was the 26th day of life. The objective was to determine whether the animals reach a higher weaning weight due to automatic feeding or whether similar results can also be reached by manual feeding.

The following facts were examined:

- The difference of the respective average weaning weights,
- average daily gains,
- weight development of the piglets depending on the lactation number of the sow
- difference in the weight development of the piglets during the observation period
- feed consumption
- feed costs
- proceeds per piglet

In the following illustration, the average weaning weights with automatic supplementary feeding of the suckling piglets are shown. Noticeable in this context is the fact that by means of this feeding system, always higher weights were gained than in manual feed provision. The statistical evaluation yielded significant results with regard to this parameter so that a clear positive influence of “Nutrix+“ feeding on the weaning weights could be determined.

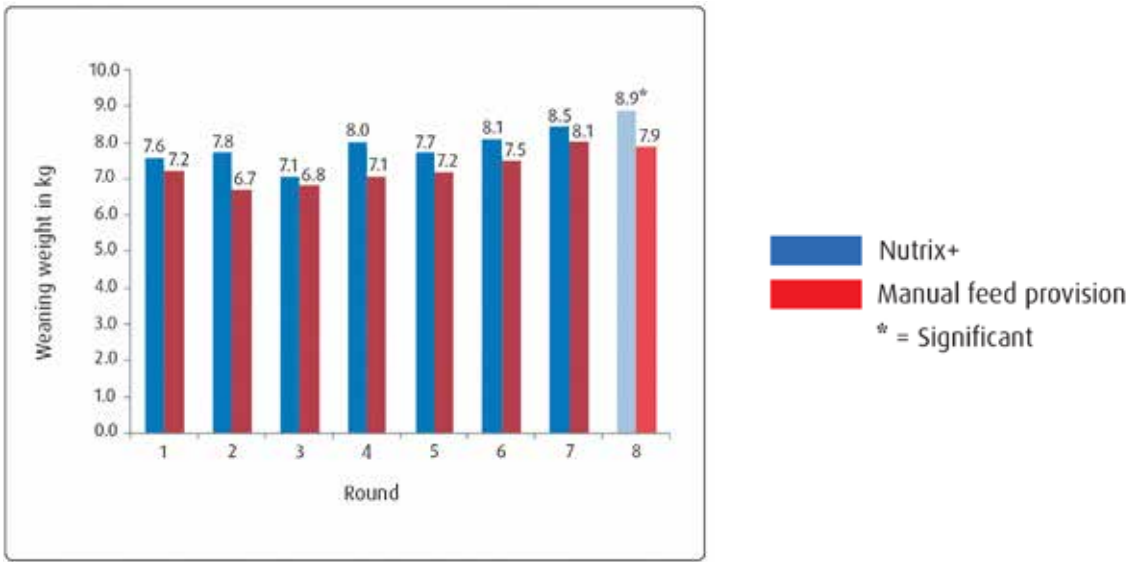

Illustration 1: Weaning weights in kg depending on the feed provision

Beside the weaning weight, the analysis of the parameter “daily gains“ confirmed that the employ of automatic feeding yielded higher values. On average, up to 40g more was gained per piglet and day than in the case of manual feed provision. The average daily gains in manual feeding amounted to 270g whereas they ranged significantly higher in automatic feeding, namely at 310g (compare illustration 2).

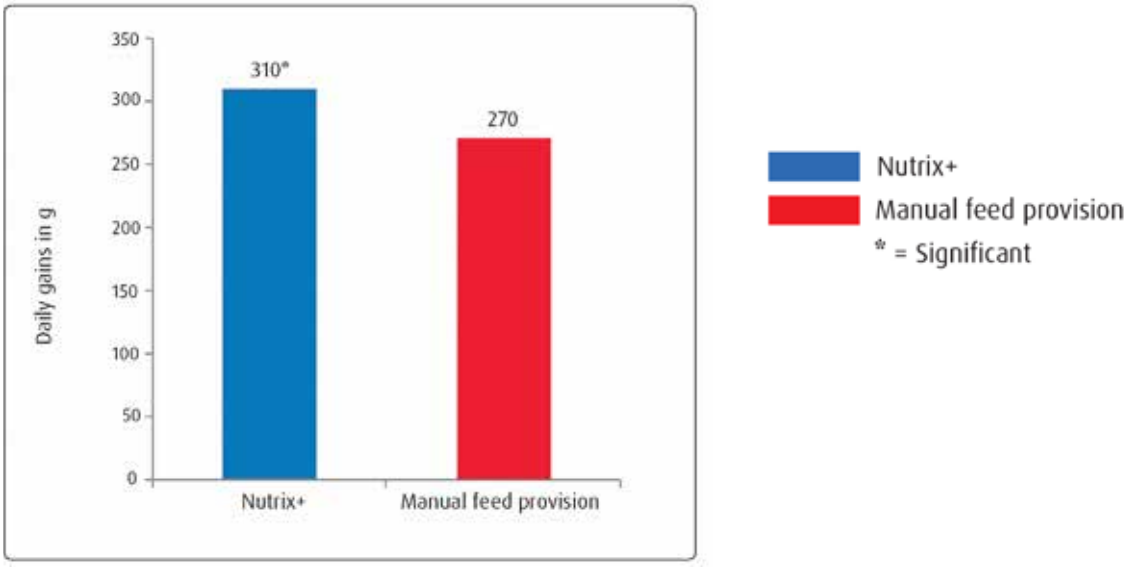

Illustration 2: Daily gains depending on the feed provision

Despite higher daily gains and regular feed provision in automatic feeding, feed consumption has not significantly risen. Reasons for this can mainly be found in the lower feed losses in automatic liquid feeding (compare illustration 3).

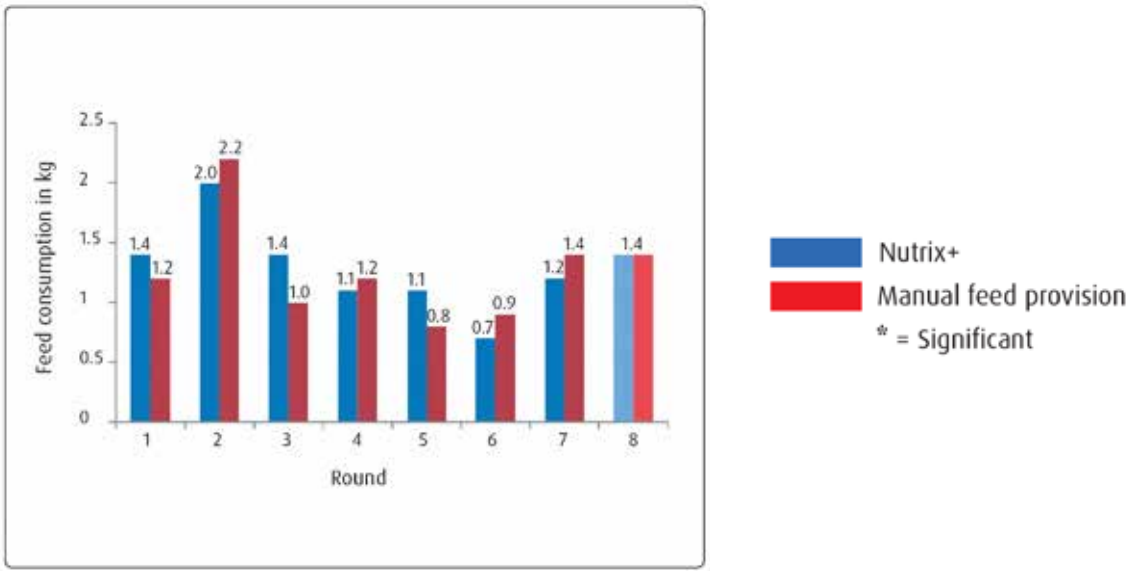

Illustration 3: Feed consumption in kg, depending on the feed provision

The feed costs are in parallel to the feed consumption, and in automatic feed provisions range higher than in the case of manual feed provisions (compare illustration 4).

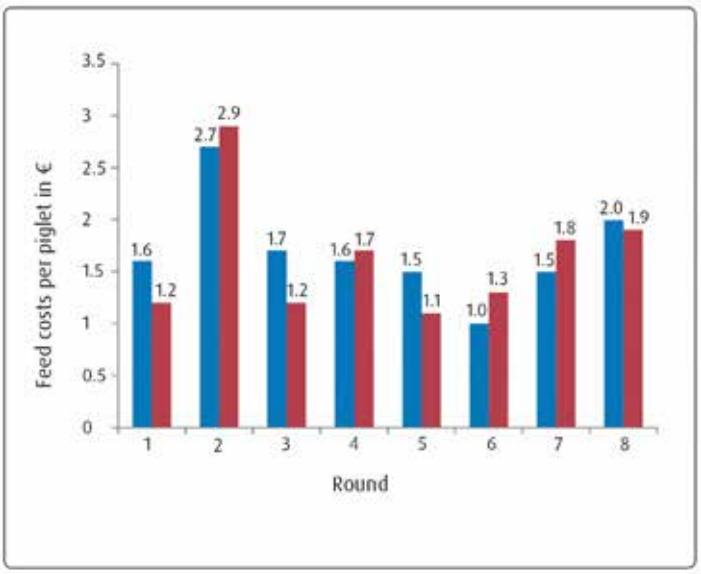

Illustration 4: Feed costs per piglet, depending on the feed provision

The profits per piglet due to higher weaning weights in the case of automatic liquid feeding deviated in the individual test runs between € 1.20 and € 3.10 (compare illustration 5).

Round	1	2	3	4	5	6	7	8
Profit	1.40€	2.50€	1.20€	1.50€	1.30€	2.70€	2.60€	3.10€

Illustration 5: Profit per piglet due to automatic liquid feeding

The costs for the automatic system amount to approx. € 8,500 in the case of one and to € 11,000 in the case of two feed tanks including control and dis-tribution technology. In addition, costs amounting to approx. € 160 per trough due to the required equipment in the farrowing sections: troughs, sensors, pipe conducts, and valves.

Conclusion

The results of this trial have shown that the weaning weights (compared with manual feeding) - and thus the profits in piglet raising - can be clearly increased by the establishment of automatic supplementary feeding of suck-ling piglets until weaning.