INFLUENCE OF THE NUKLOSPRAY YOGHURT ON GROWTH AND DEVELOPMENT OF SUCKLING PIGLETS

D.Rimac, Laura Vargović, V.Sili, R.Spajić, K.Kuterovac, I.Vujeva, Ana Anđelić

Damir Rimac,[1] MSc, (damir.rimac@belje.hr) Laura Vargović,[1] BSc., Velimir Sili,[1] BSc., Robert Spajić,[1] PhD., Kresimir Kuterovac,[1] BSc., Ivan Vujeva,[1] DVM & Ana Anđelić,[2] DVM
[1]AGROKOR/BELJE Company Croatia;[2]Bio-pharm vet Company Croatia

Summary

The research was carried out in farrowing unit on commercial pig farm Andrijaševci 2 (AGROKOR/BELJE Company Production System) on piglets (n=474 piglets, progeny of boar P-410) from 40 sows (PIC C-23) divided in 2 groups of identical weights.
The trial group was fed with Nuklospray Yoghurt (NY) from the day they were born and after 10 days prestarter was added, while control group was fed only with prestarter after 10 days of life. The feeding with NY was followed by defined procedure in which product was mixed with water in 1:2.5 ratio and quantities were increased once per week.
Analysis of piglets' body weight (BW) showed a significant higher BW ($p<0.06$) of trial group than control group (0.229 kg). Piglets' average daily gain also showed significant difference ($p<0.04$), trial group had 0.251g ADG while control group had 0.229 ADG. Results of NY group with 10.8% higher total and BW than control group indicate a significant difference.

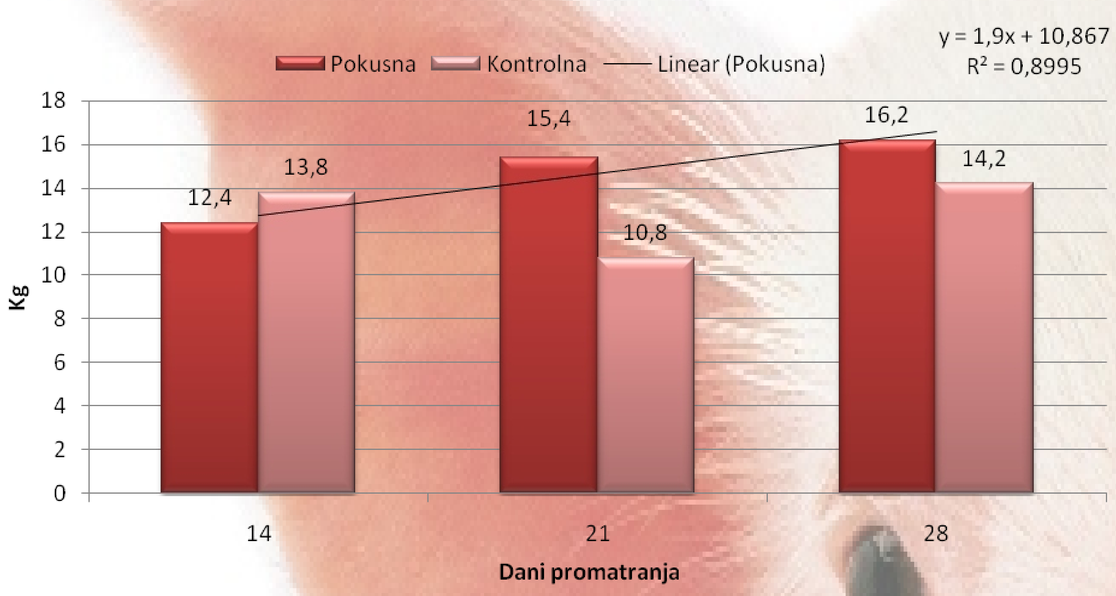

Chart 1 : Ratio of consumed Prestarter between test and control group

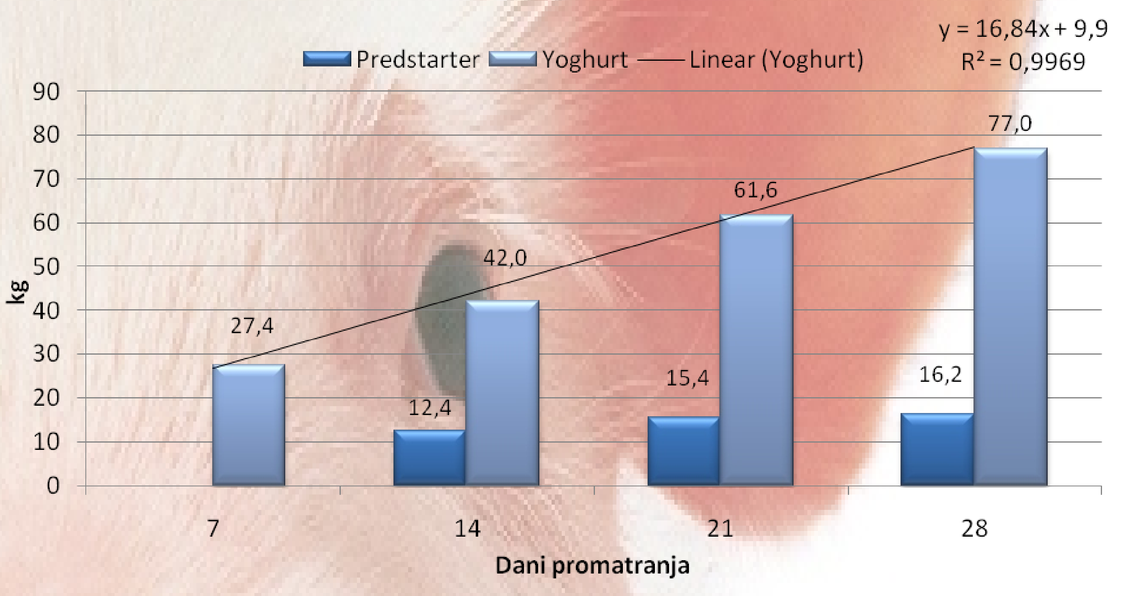

Chart 2 : Ratio of consumed Prestarter and Nuklospray Yoghurt

Sažetak

Istraživanje je provedeno u proizvodnim uvjetima jednog prasilišta na komercijalnoj farmi svinja Andrijaševci 2 unutar proizvodnog sustava Belje d.d. na ukupno 40 krmača (PIC C-23) i njihove prasadi (n=474 praseta, potomci od terminalnog nerasta P-410), podijeljenih u 2 skupine, ujednačenih masa.

Pokusna skupina dobivala je od prvog dana starosti pripravak Nuklospray Yoghurt, a nakon 10 dana i predastarter, dok je kontrolna skupina dobivala samo predstarter od desetog dana. Hranidba jogurtom bila je po točno određenom protokolu, prema kojem se pripravak u prahu miješa s vodom u omjeru 1:2.5, a količina se povećava jednom tjedno. Analizirajući tjelesne mase prasadi, vidljivo je kako je prasad pokusne skupine imala značajno veću ($p<0.06$) prosječnu masu u odnosu na kontrolnu skupinu. Dnevni prirasti prasadi također pokazuju razliku ($p<0.04$) u korist pokusne skupine (0.251 g) u odnosu na kontrolnu skupinu (0.229 g). Rezultati pokusa ukazuju kako Nuklospray Yoghurt s 10.8% većom ukupnom završnom masom pokusne skupine u odnosu na kontrolnu pokazuje signifikantne rezultate.

Table 1 : Descriptive statistics for piglets production traits in test

	Test group (P)	***Control group (K)***	***t - value***
1. Litter	2,80 ± 0,52	2,75 ± 0,64	$0,271^{ns}$
2. No piglets at start (piglets/litter)	11,85 ± 0,49	11,85 ± 0,37	$0,000^{ns}$
3. No piglets at the end (piglets/litter)	11,10 ± 2,38	11,15 ± 1,84	$0,074^{ns}$
4. Total live born weight (kg)	18,71 ± 2,92	18,82 ± 3,29	$0,112^{ns}$
5. Average live born weight (kg)	1,58 ± 0,25	1,59 ±0,26	$0,072^{ns}$
6. Total weaning weight (kg)	92,33 ± 11,94	83,30 ± 7,69	1,897*
7. Average weaning weight (kg)	8,45 ± 0,90	7,86 ± 0,98	1,985*
8. Gain on total weight (kg)	73,62 ± 11,69	67,48 ± 7,62	1,968*
9. Gain per single piglet (kg)	6,87 ± 0,83	6,27 ± 0,94	2,130*
10. Average daily gain (kg/day)	**0,251** ± 0,303	**0,229** ± 0,318	2,167*

Conclusion

Based on given results we can conclude that the use of Nuklospray Yoghurt in lactation period is justified considering defferences during research:

- Decreased mortality (Test group = 6,33 % ; Control group = 5,91 %)
- Increased total weaning weight (Test group =92,33 kg ; Control group = 83,30 kg)
- Increased average weaning weight (Test group =8,45 kg ; Control group =7,86 kg)
- Increased gain on total weight (Test group = 73,62 kg; Control group = 67,48 kg)
- Increased gain per single piglet (Test group = 6,87 kg ; Control group = 6,27 kg)
- Increased average daily gain (Test group = 0,251 kg/day ; Control group = 0,229 kg/day)

With this research we have determined that usage of Nuklospray Yoghurt has many advantages and its application in farrowing unit leads to excellent results.