

233 Neohesperidine dihydrochalcone (2b959) increases stevia preference in young piglets

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INTRODUCTION

❖ Stevia extracts (SE) are sweet-tasting compounds that could be used as sweeteners in pigs

OBJECTIVE: to determine the effect of SE at different inclusion levels (Exp. 1) and the synergy between SE and Neohesperidine dihydrochalcone (NHDC) (Exp. 2) on feed preference in weanling pigs

MATERIALS AND METHODS

DOUBLE CHOICE TEST (DCHT):

Experimental Phase

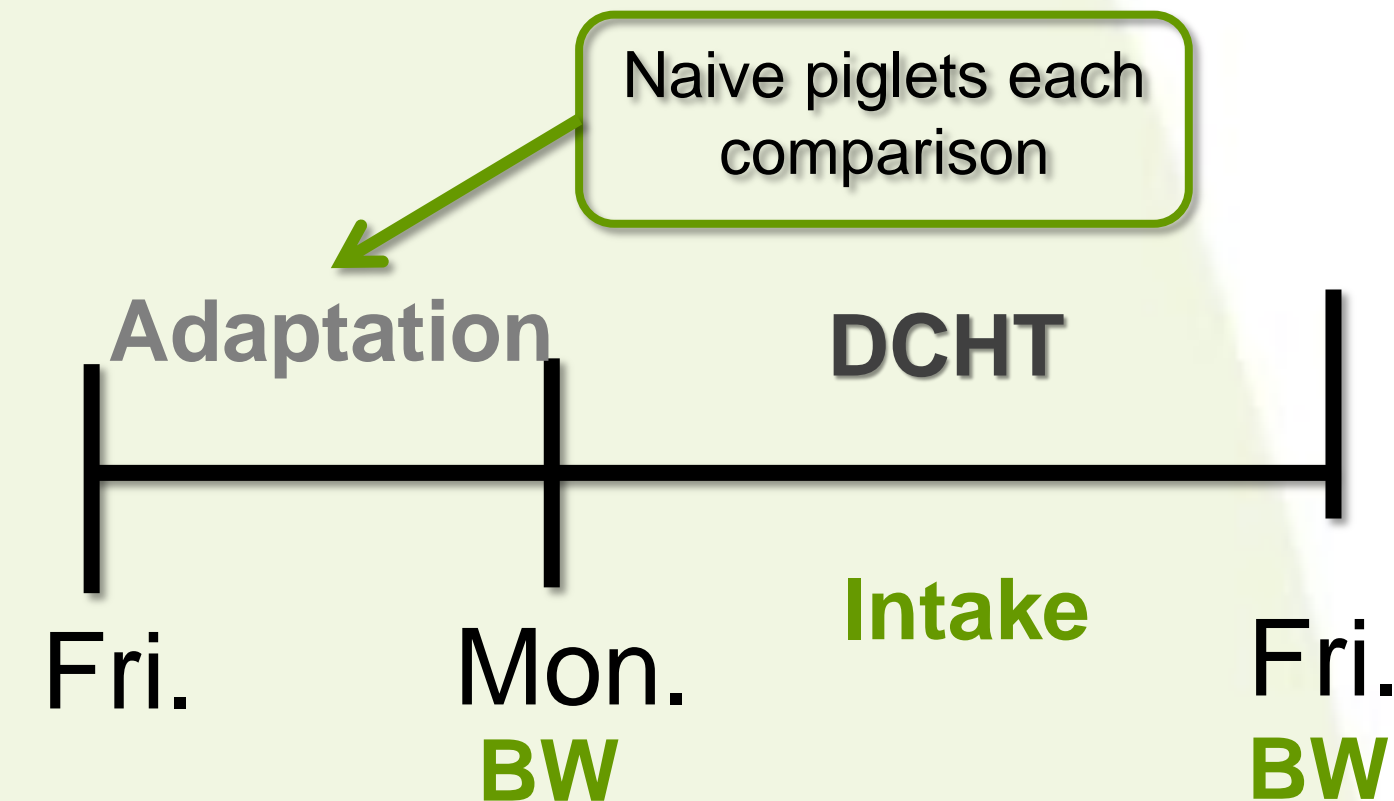
12 pens

R vs T1	R vs T4	R vs T6	R vs T3	R vs T2	R vs T5
R vs T4	R vs T2	R vs T3	R vs T1	R vs T5	R vs T6

3 piglets/pen



The procedure was repeated for 6 times in **Period 1** and **2**. Each **experimental phase** included all treatments to be tested in a Period (n=2 per treatment and **phase** and a total of 6 **phases** per **period**; n=12 per treatment)



❖ A total of **396 piglets**, 14 to 35d post-weaning (36 piglets per treatment). At the end of the **experimental phase** the animals were removed and changed for other naive animals.

DIETS & TREATMENTS:

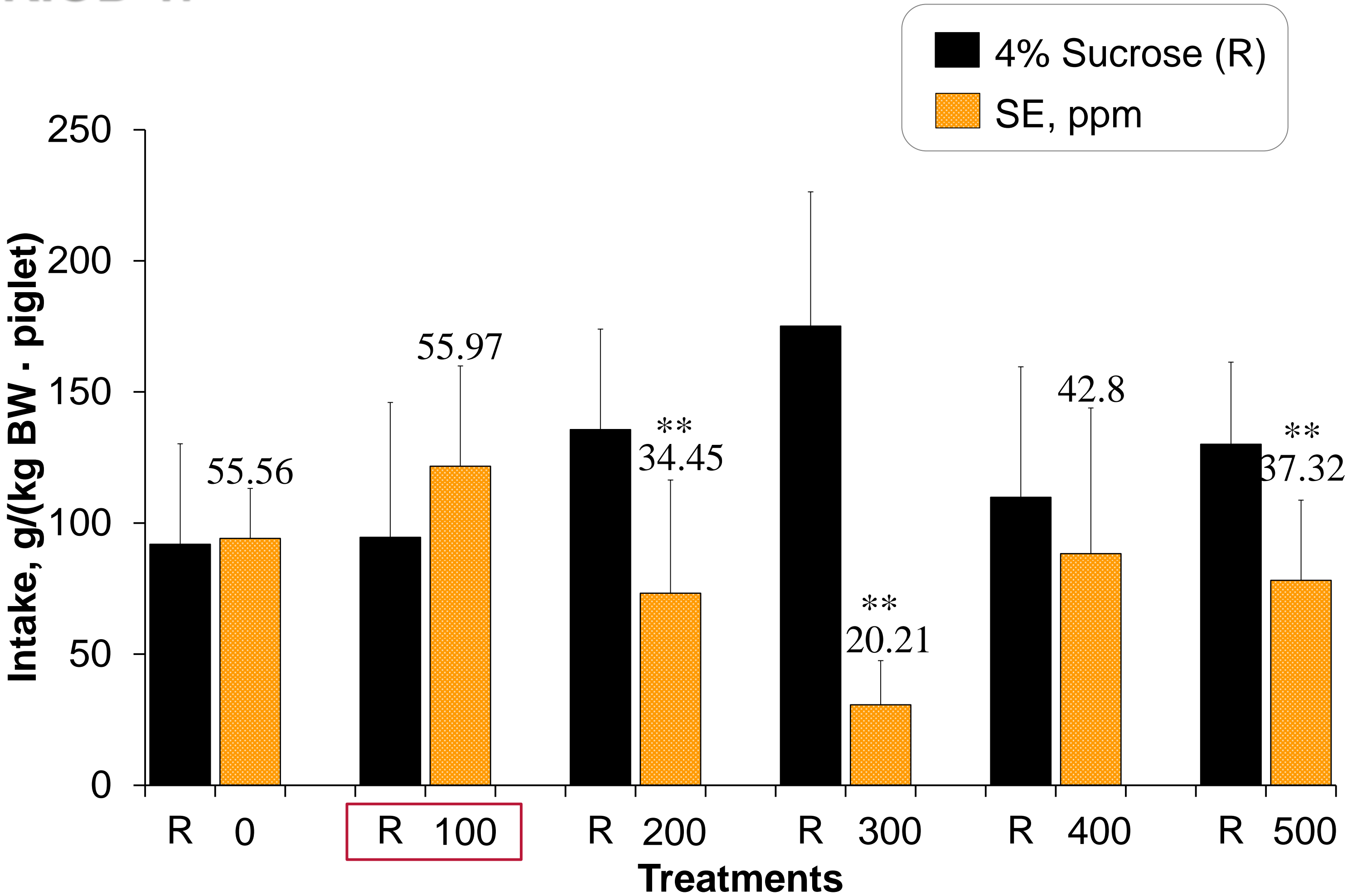
- ❖ **SE** >75% Total Steviol Glycosides (> 40% Stevioside, >15% Reubadioside A)
- ❖ Basal diet + 4% sucrose (**R**) was compared to Treatment diets (**T**):

	Period 1 SE, ppm	Period 2 SE + NHDC, ppm
T1	0	0 + 0
T2	100	150 + 2
T3	200	150 + 3
T4	300	150 + 4
T5	400	150 + 5
T6	500	----

RESULTS

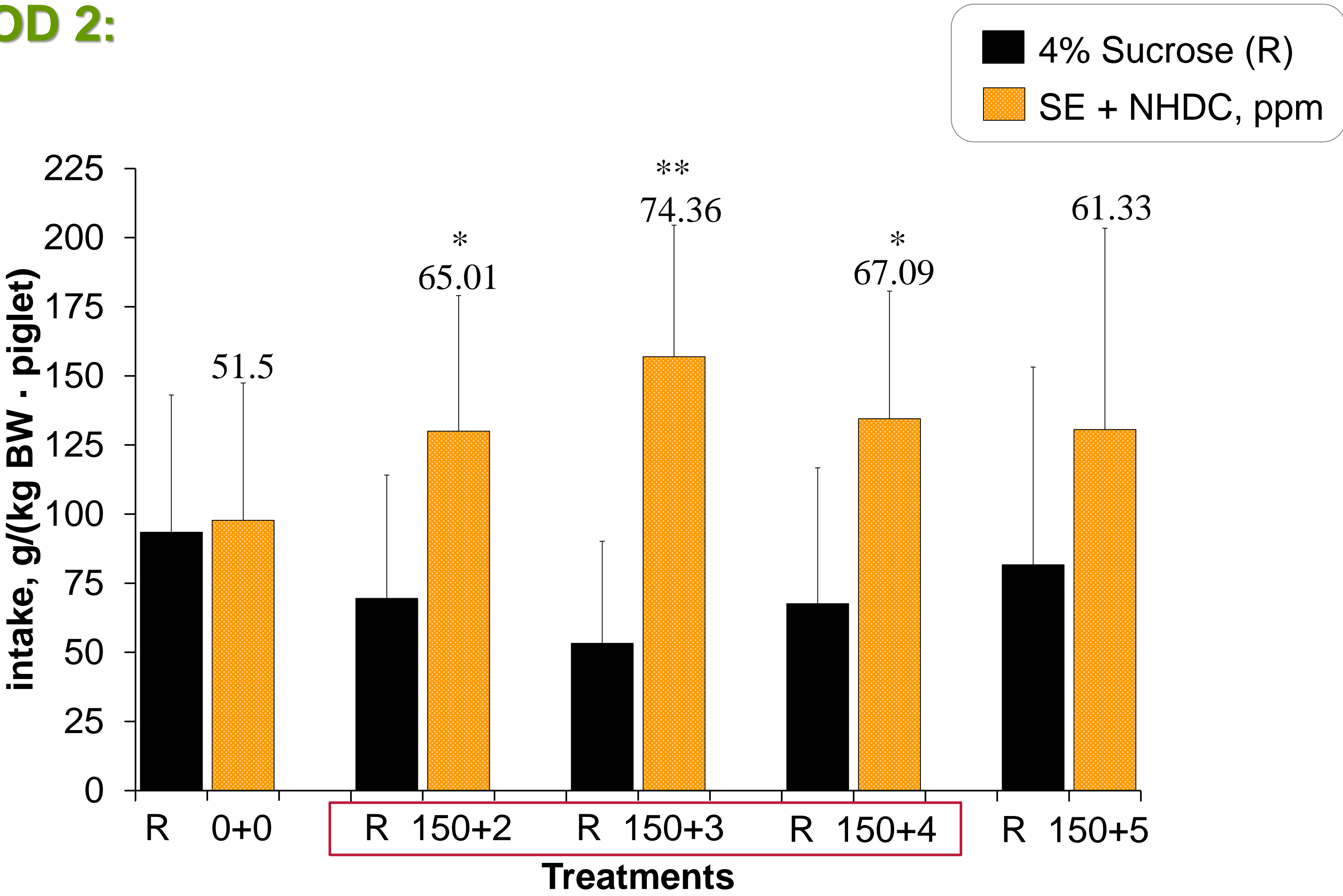
❖ Feed intake and preference for each diet were calculated:

PERIOD 1:



NO preferences were observed on **SE diets**, but T2 (100 ppm SE) showed a quantitative higher intake than R (56.0%), while higher levels (>200 ppm) depressed the preference with lower values than 42.8%.

PERIOD 2:



Higher preferences for **SE+NHDC** over **R** were observed for T2, T3 and T4.

CONCLUSION

The inclusion of **3ppm NHDC** in **150ppm SE** starter diet **increases feed intake and preference** when it is compared to 4% of sucrose.