

ALKOSEL[®] - Broiler Breeder Trial

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- Trial Details -

✓ Animals :

- 8 000 breeder hens split in two groups in two similar buildings,
- Similar groups (genetic - Hubbard Isa, sex ratio, weight, age).

✓ Diet :

- Standard concentrate feed.

✓ Trial :

- Week 52 to week 68 ie 16 weeks of supplementation at the end of the laying period,
- Light : 17 h/day.

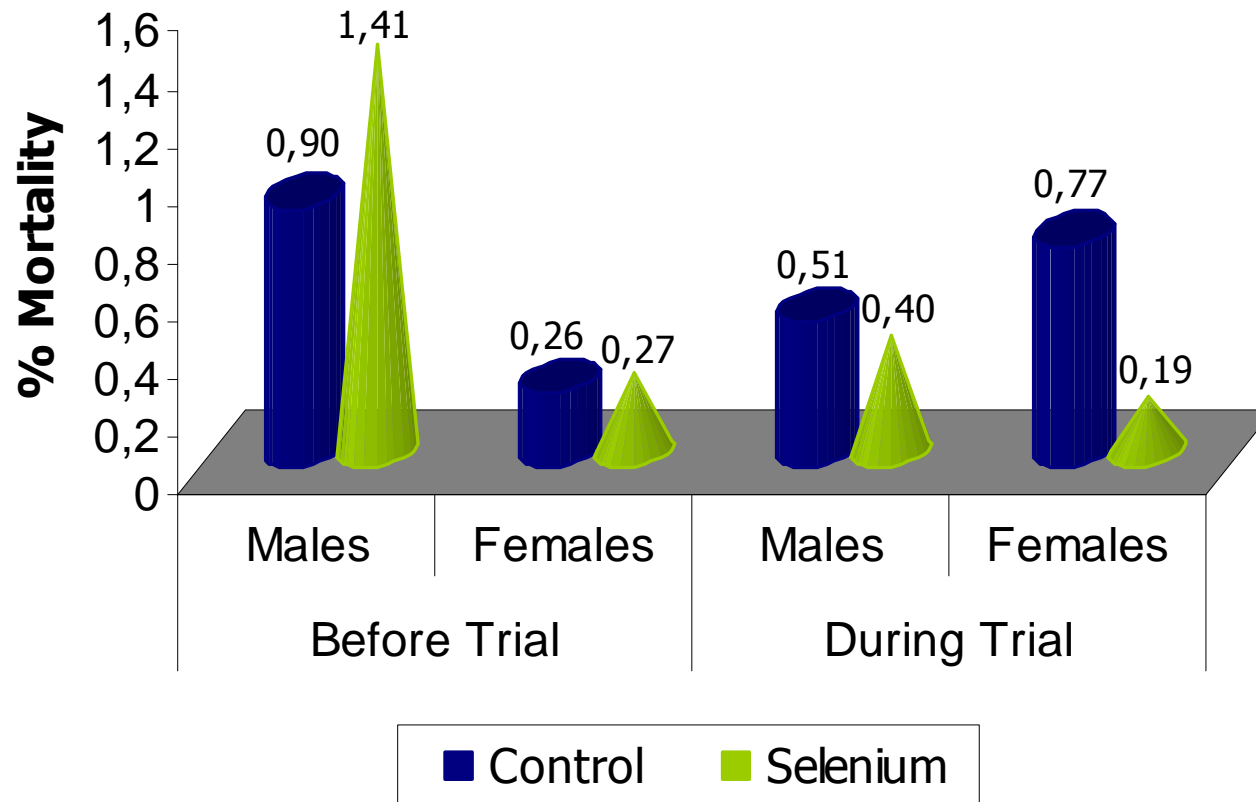
✓ Protocol :

- Control (4 000 hens) : 0,4 ppm Se as sodium selenite,
- Treated (4 000 hens) : 0,4 ppm Se (200 g/t) as Alkosel.



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- A Lower Mortality for the Alkosel Groups -



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- A Lower Mortality for the Alkosel Groups -

✓ Results / Discussion :

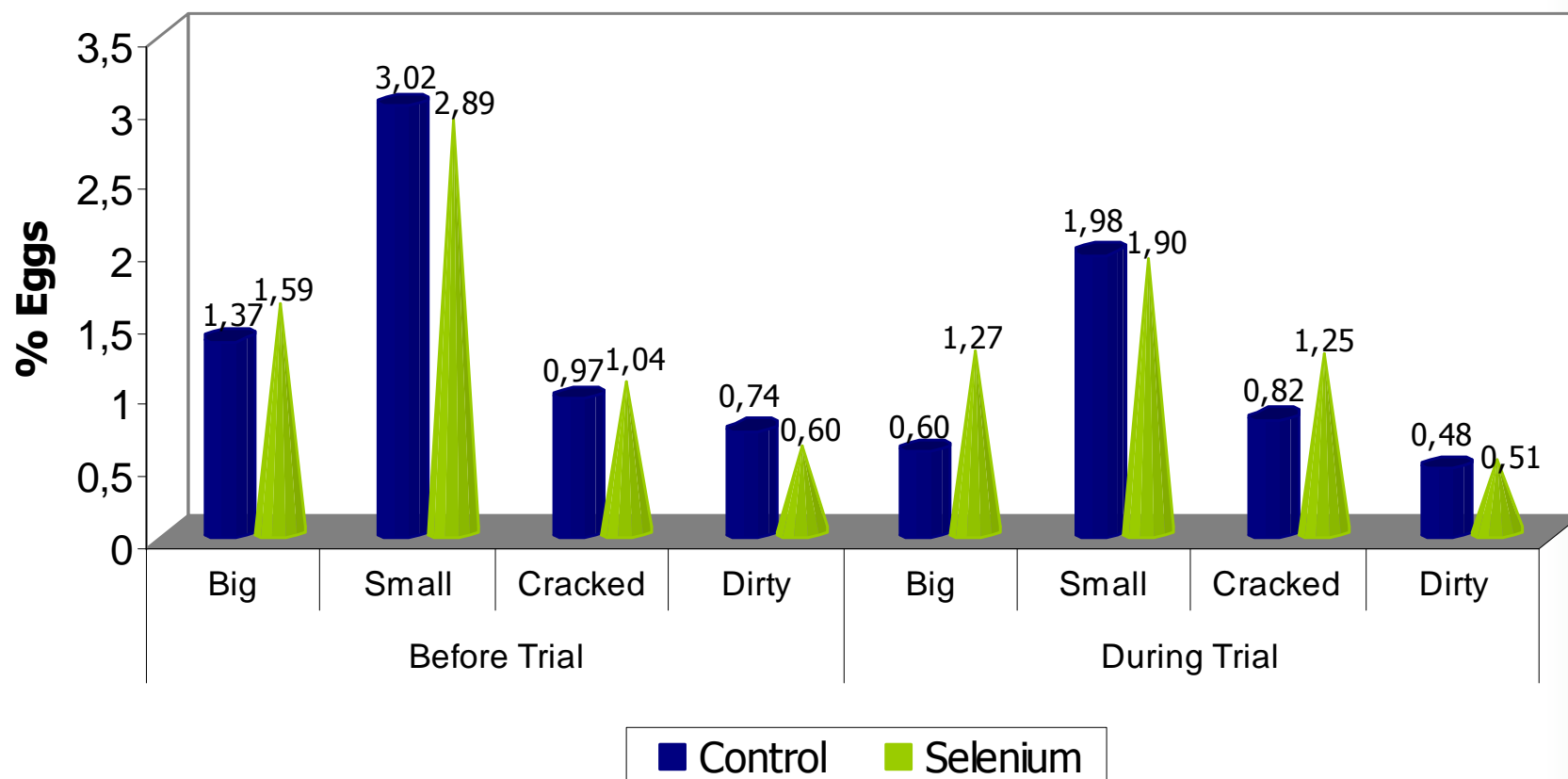
- Before the trial, male birds, receiving Se as sodium selenite, had an higher mortality compared to control group.
- **During the trial, there is a trend to a lower mortality for animals fed Alkosel.**
- Compared to status before the trial, mortality increases for female birds in the control group.

 **A Lower Mortality for the Alkosel Groups**



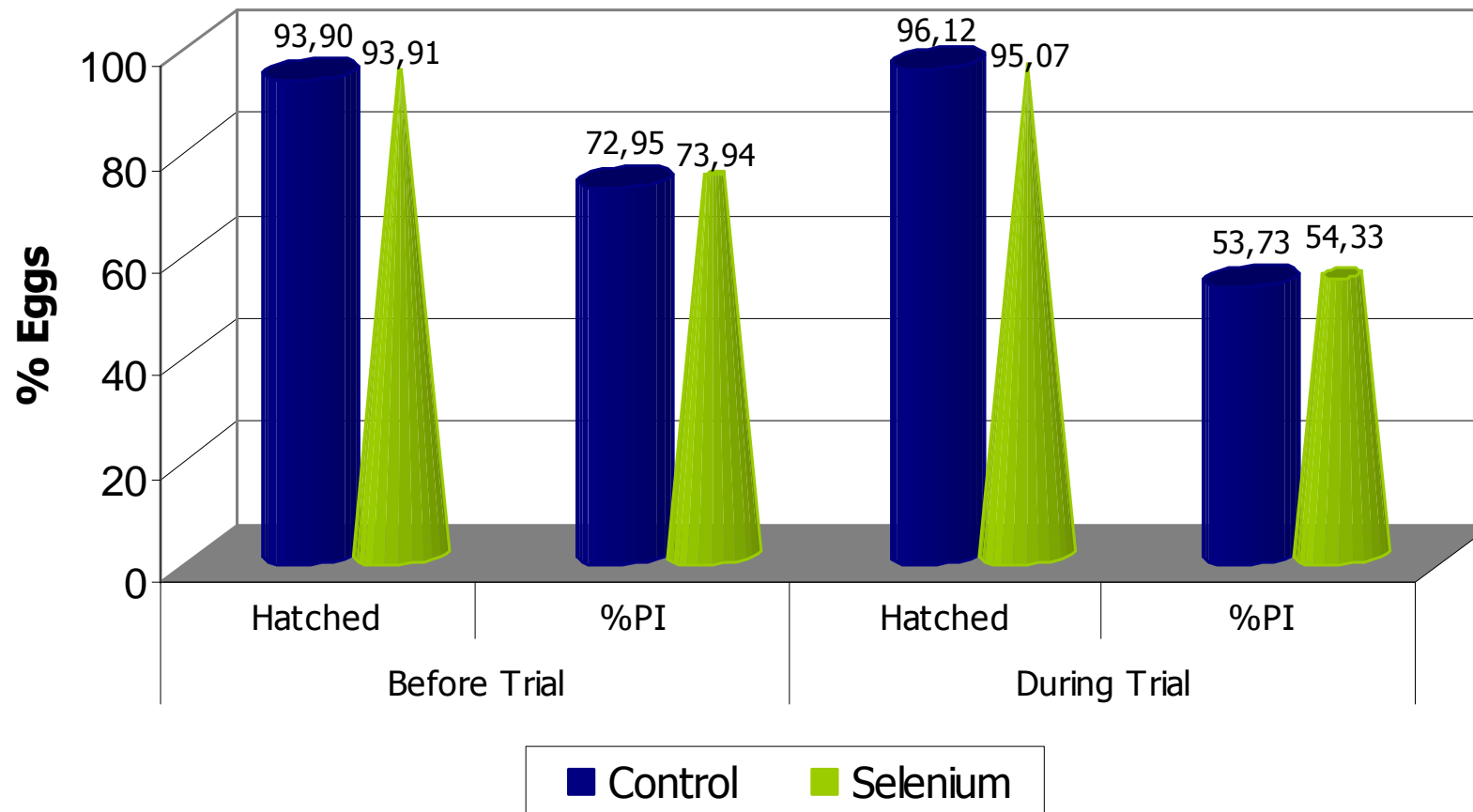
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- Egg Downgradings -



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- Incubated Eggs / Production Index (PI) -



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- Incubated Eggs / Production Index (PI) -

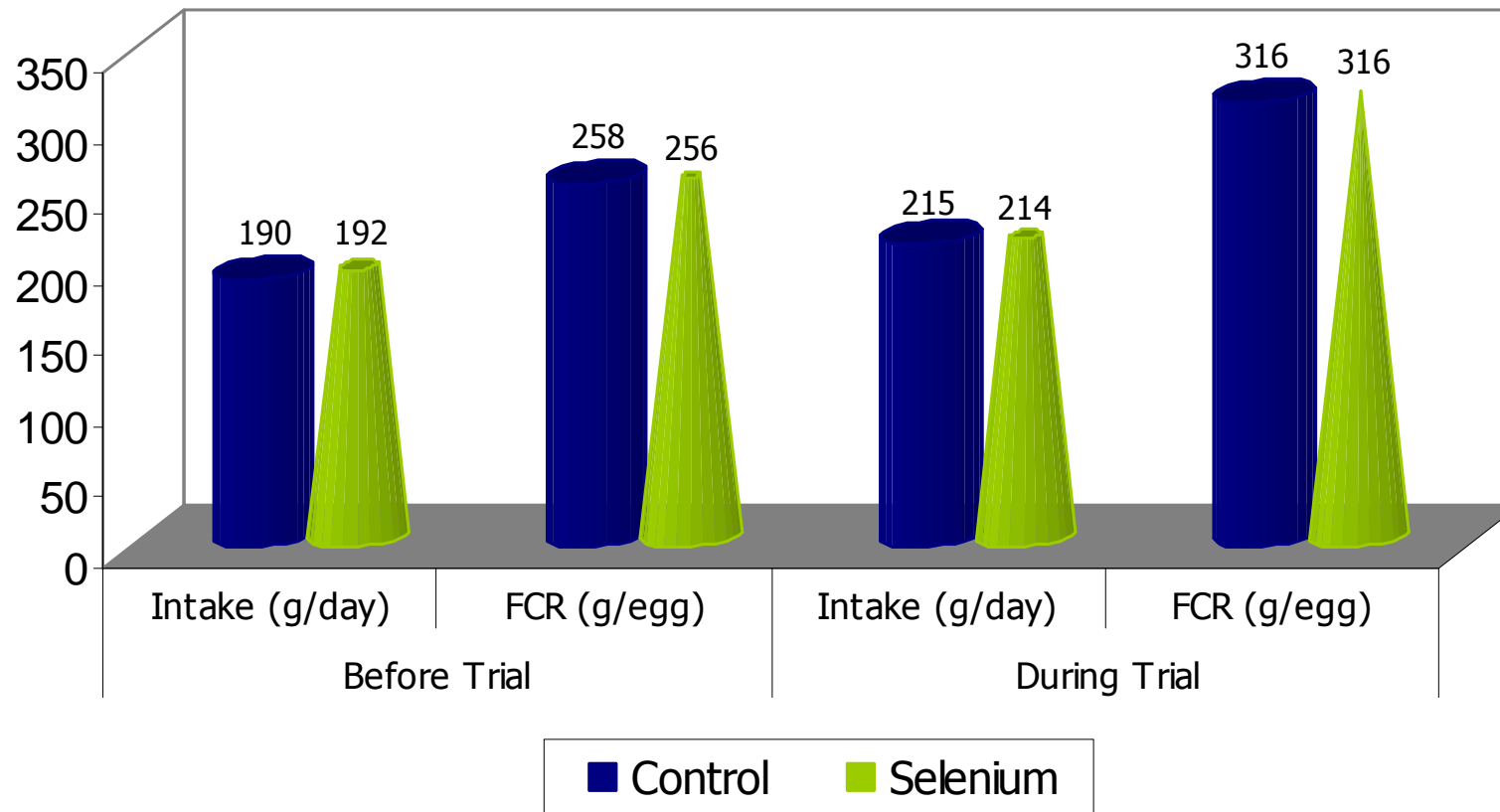
✓ Results / Discussion :

- During the trial period, % hatched eggs is similar in both groups.
- Globally, this % increases during the trial period. This figure is slightly lower in the Alkosel group vs. Control. An higher % of downgrades could be an explanation.
- Production Index decreased during the trial period compared to before the trial. The level of decrease was the same in both groups.



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- Feed Intake -



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- Feed Intake -

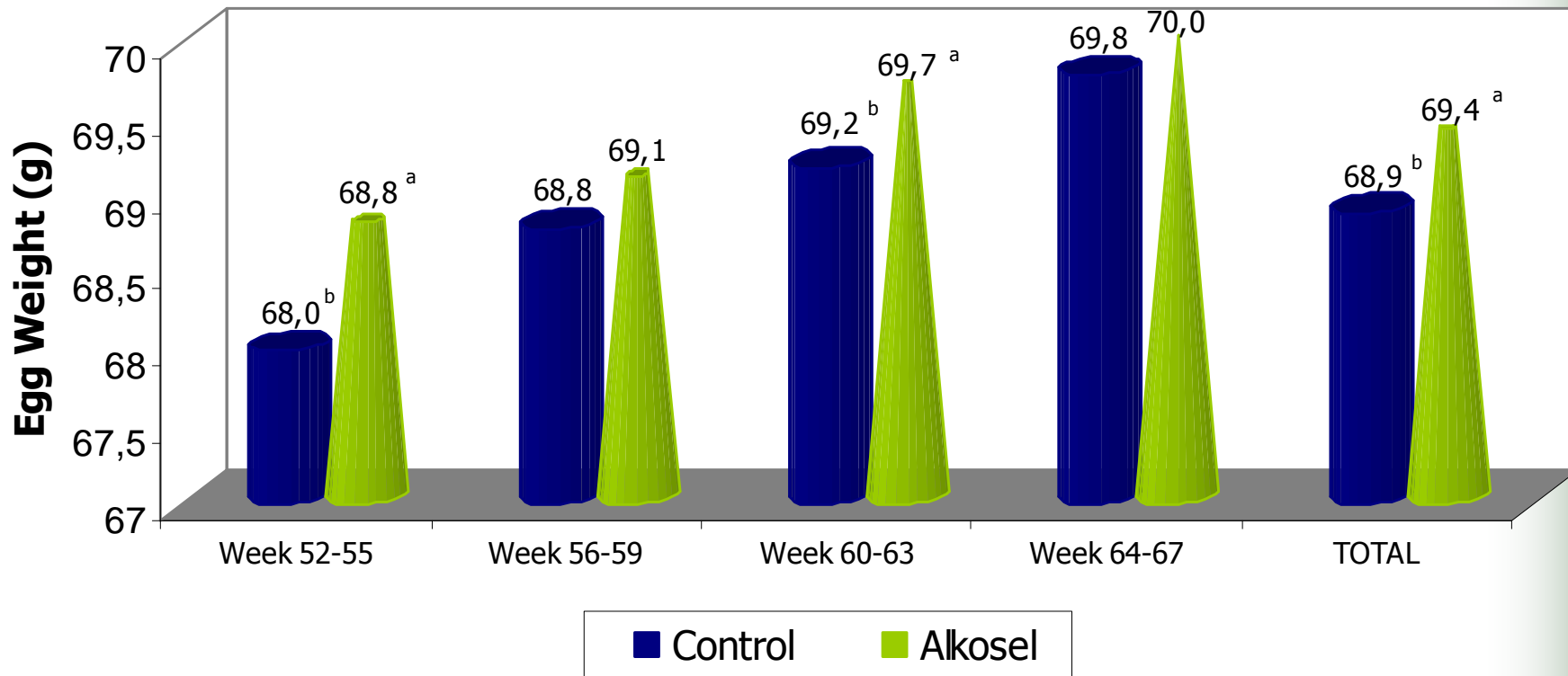
✓ Results / Discussion :

- Globally, Feed Conversion Ratio per hatched egg increases during the trial period. The level of increase is the same for both groups.
- In this trial, there is no effect of organic selenium supplementation on feed intake.

⊕ **No Effect of Alkosel on Feed Intake**

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- Average Egg Weight -



* For each period, figures with a different letter are significantly different (P<0,05).

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- Average Egg Weight -

✓ Results / Discussion :

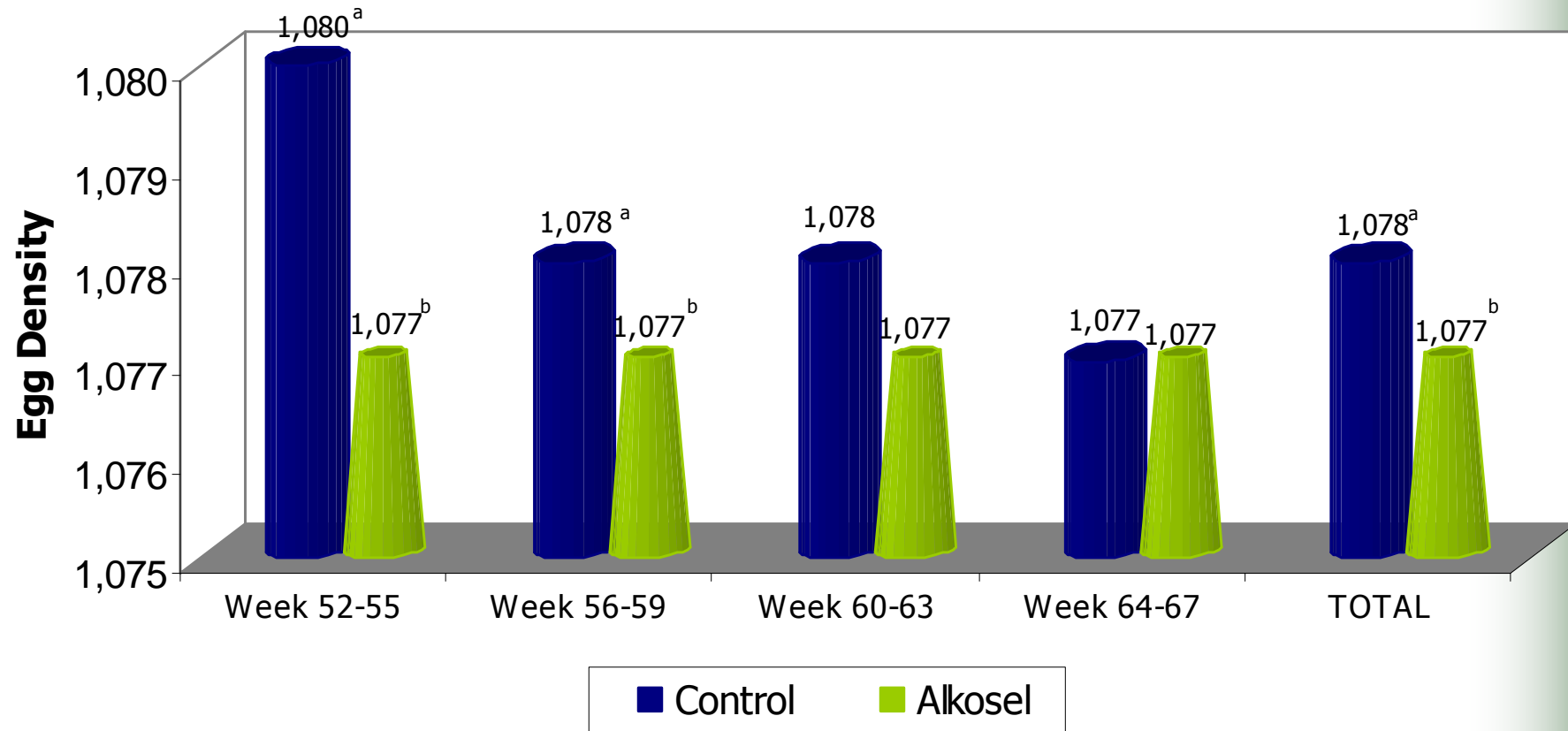
- For weeks 52 to 55, 60 to 63 and on the overall period, the average egg weight in the Alkosel group was significantly ($P < 0,05$) higher than in the control group.
- Alkosel has a positive effect on the average egg weight during the final phase of the laying period.

⊕ **Heavier Eggs in the Alkosel Group ($P < 0,05$)**



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- Average Egg Density -



* For each period, figures with a different letter are significantly different ($P < 0,05$).



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- Average Egg Density -

✓ Results / Discussion :

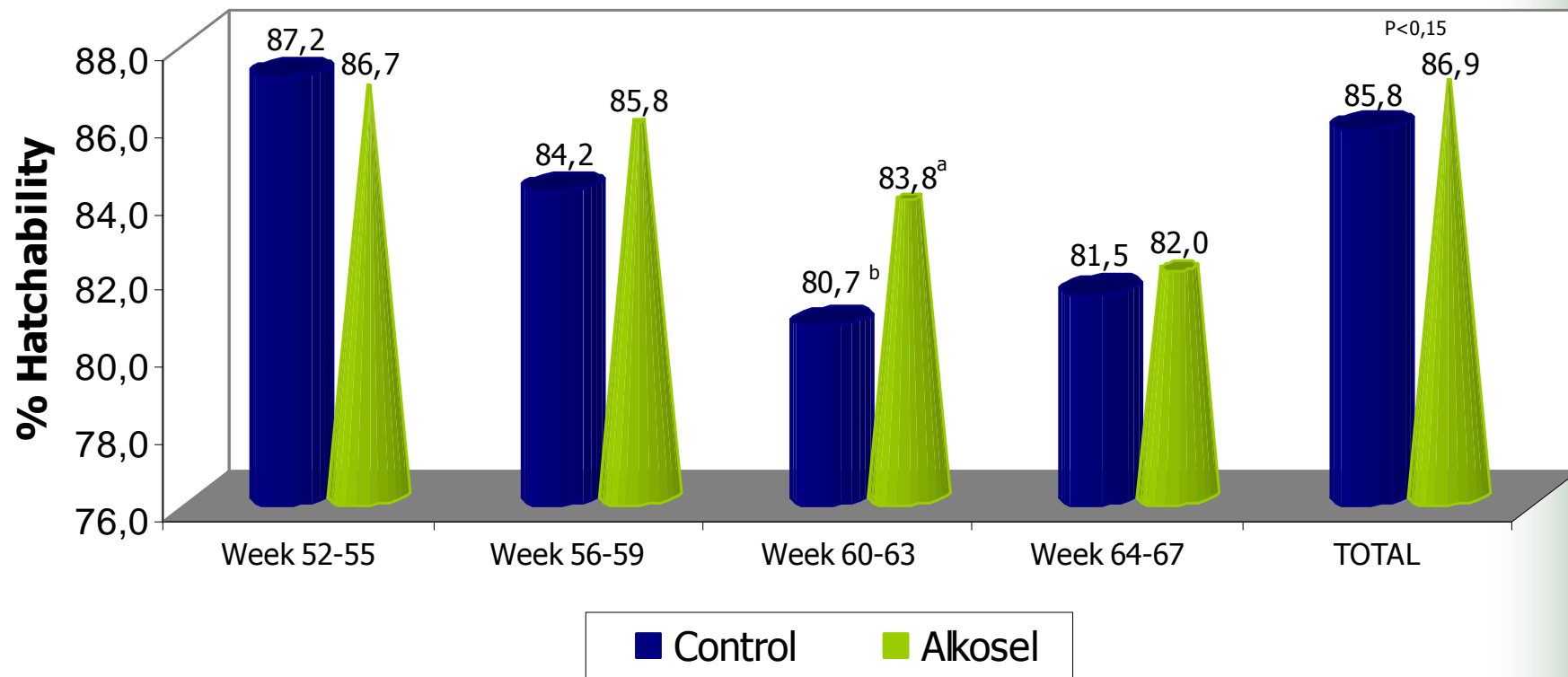
- For weeks 52 to 55, 56 to 59 and on the overall period, the average egg density in the Alkosel group was significantly ($P < 0,05$) lower compared to the control group.
- Alkosel has an effect on the average egg density only during the first phase of the trial (till 60 weeks).

⊕ **A Lower Egg Density for the Alkosel Group**
($P < 0,05$)



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- Hatchability -



* For each period, figures with a different letter are significantly different (P<0,05).

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- Hatchability -

✓ Results / Discussion :

- Hatchability is significantly higher in the Alkosel group during the period Week 60-63.
- However, for all the defined periods, the trend is always similar ie positive for the Alkosel group.

⊕ **An Improved Hatchability for the Alkosel Group**



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- Hatchability -

✓ Results / Discussion :

- Trend toward a decrease in % non fertile eggs in the Alkosel group. Embryonic mortality trends to be similar.

Periods		Control	ALKOSEL
Week 52-55	% Non Fertiles	9.8	9.2
	% Embryonic Mortality	3.0	4.1
Week 56-59	% Non Fertiles	12.0	10.7
	% Embryonic Mortality	3.8	3.6
Week 60-63	% Non Fertiles	14.1	11.6
	% Embryonic Mortality	5.2	4.6
Week 64-68	% Non Fertiles	7.1	6.8
	% Embryonic Mortality	2.2	2.2
TOTAL	% Non Fertiles	10.6	9.5
	% Embryonic Mortality	3.5	3.6



This trial has been realised by Tecadi (Portugal) in collaboration with UTAD (Universit  de Tras-os-Montes e Alto Duro de Vila Real).