

Effect of different forage allowances in the pre- and postpartum period on the production of beef cows

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64th

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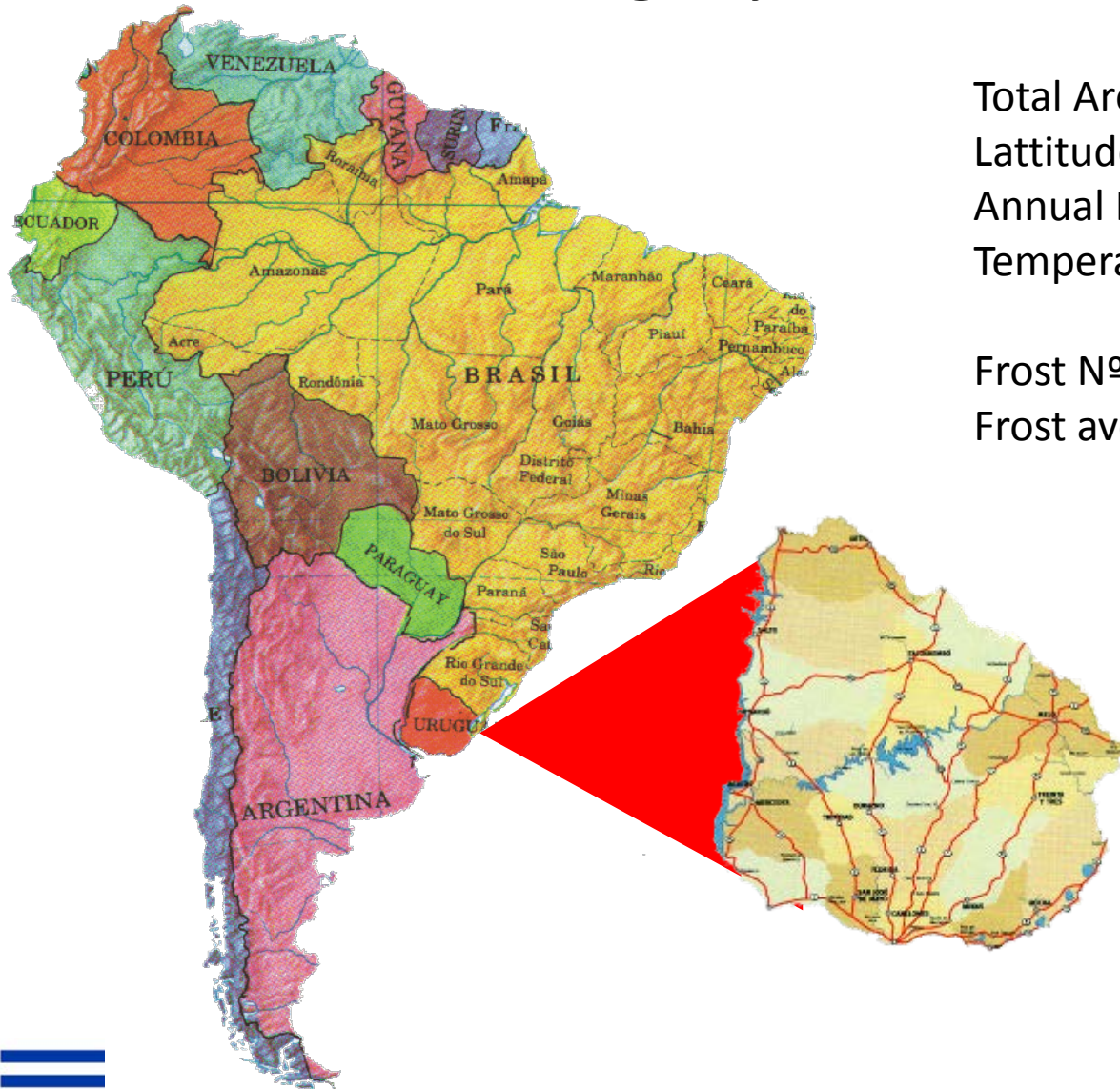
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South America

Uruguay



Total Area: 17.6 million ha
Latitude: 30 - 35° South
Annual Rainfall: 1.175 mm ± 500
Temperatures: Max. 28-33°
Min. 6-9
Frost N°: 10-50
Frost average/yr 21



Uruguay: some figures

- Stock: 11.1 million beef head / 4.2 million cows
7.5 million sheep
11 million of hectares of native pastures
- ◆ Free of BSE and Scrapie
- ◆ Cattle with tracking



Uruguay: some figures

First place in the world.....

- 3.5 beef head/hab
- 61 kg beef meet/hab/year
- 9 kg of yerba mate/hab/year
(125 lt of “mate”= yerba + water)



Uruguay: some figures

- **Exporters of:**

Beef Meet (340.000 ton/year)= 6th place in the world





Open sky: weather dependent







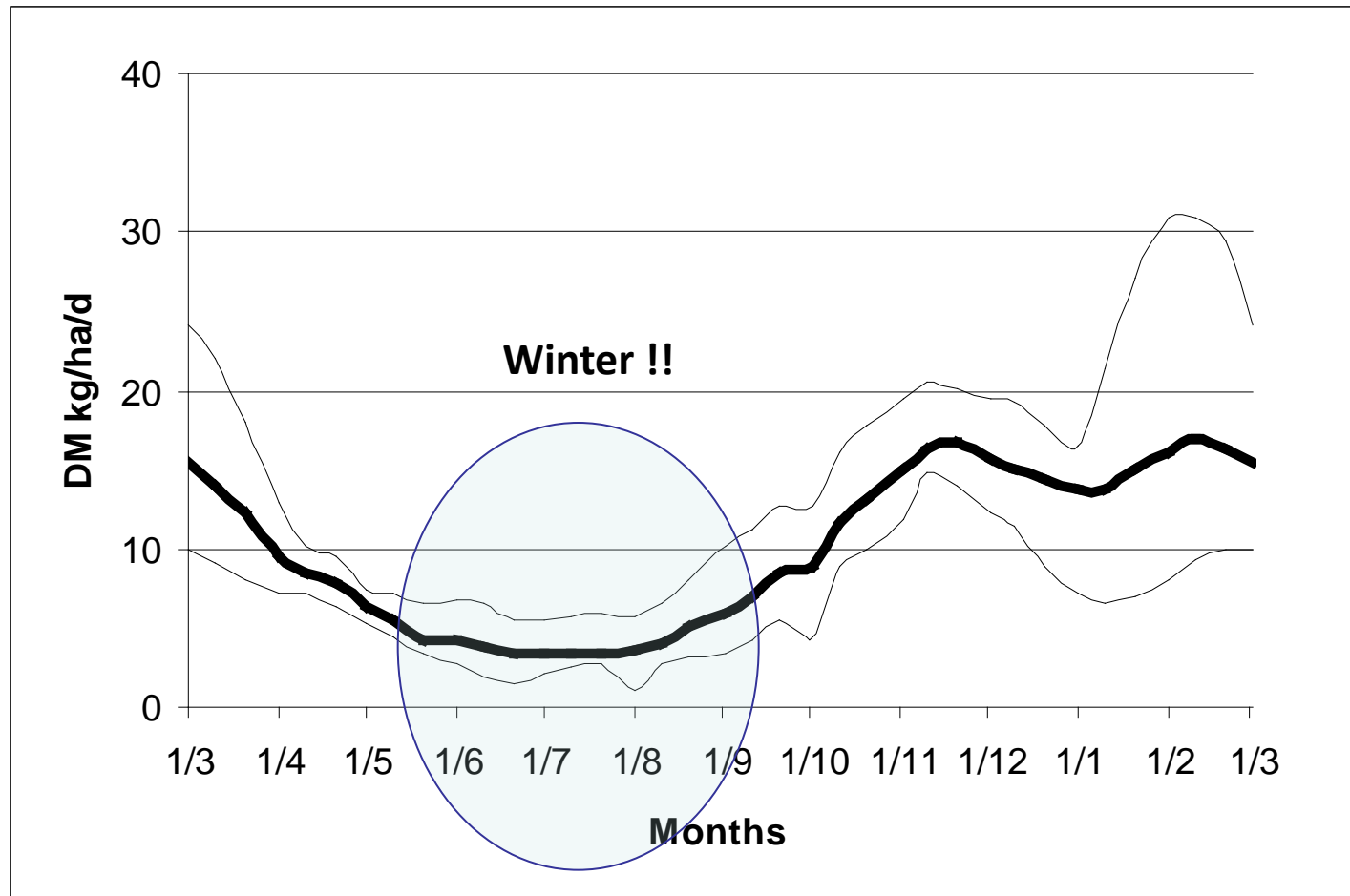


Unsubsidized production systems





Daily growing rate of native pastures



AUTUMN	WINTER	SPRING	SUMMER	TOTAL PRODUCTION
				DM (kg/ha/d)
23.40%	9.70%	28.90%	38%	3626

Background

- Short term prepartum supplementation (30-40d) in primiparous and multiparous cows and its effect on reproductive performance

Rice bran; sorghum +protein concentrated

- Most important results: reproductive performance was increased in multiparous but not in primiparous cows



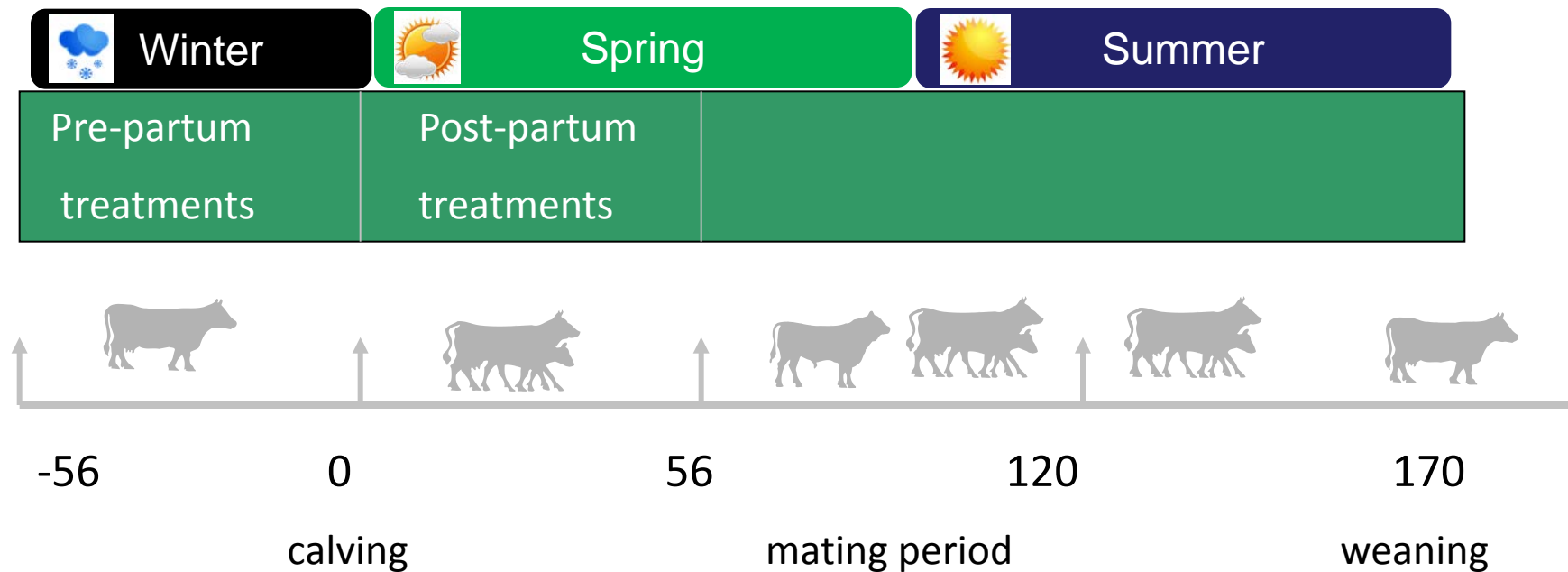
Why not with pastures?

- **Objective:** evaluate the effect of two contrasting native pastures allowance during 60d before and after calving on productive performance in multiparous cows

- **Materials and Methods:**
 - 48 multiparous cows (AAxHH)
 - Native pastures
 - High allowance: 15 kgDM/100 kg LW
 - Low allowance: 5 kgDM/100 kg LW



Experimental design



HIGH



HIGH



PreP-H

PP-H

LOW



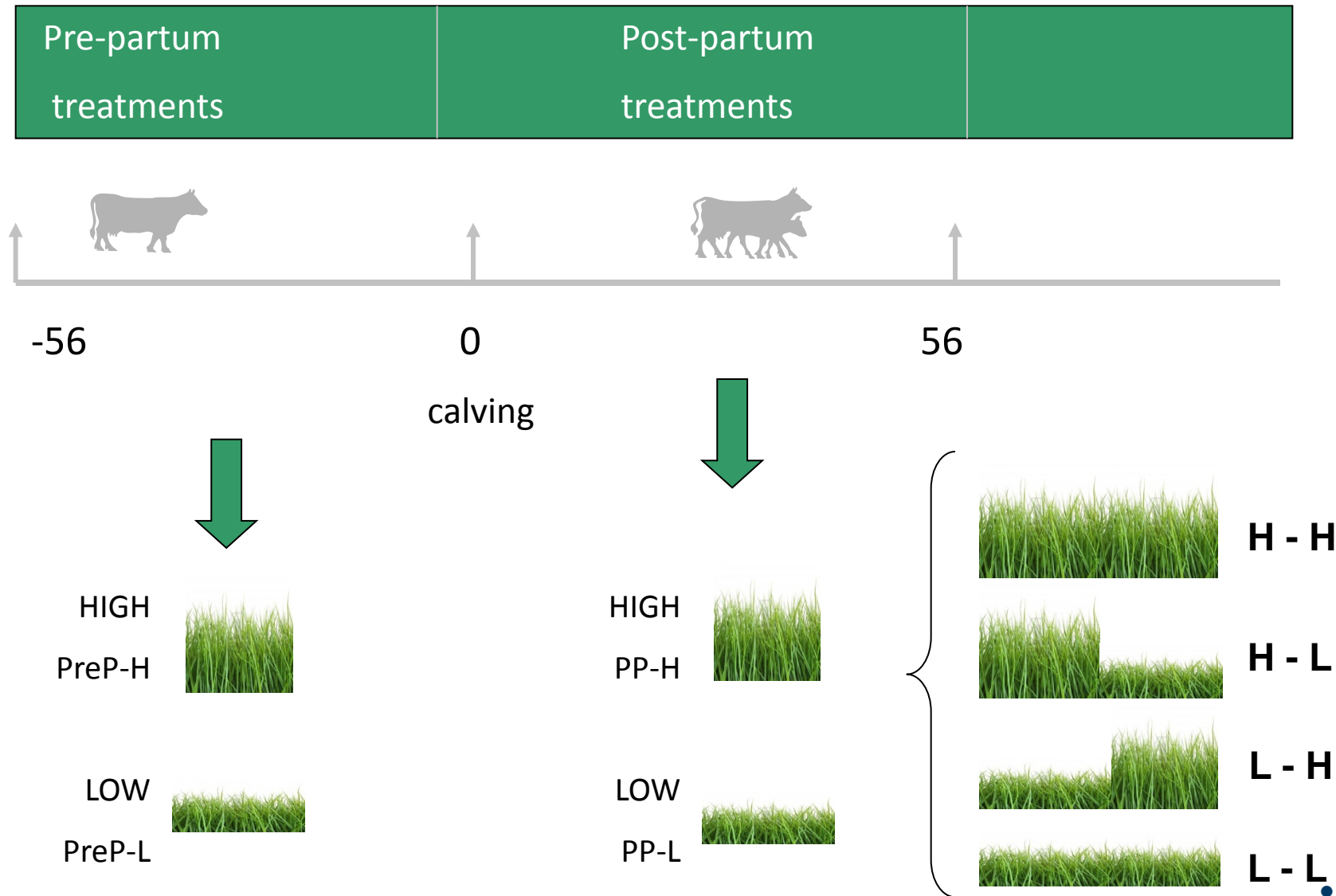
LOW



PreP-L

PP-L

Treatments



Measurements



-56

0

120

160

calving

end mating

weaning



BW and BCS every 14 days



Milk production every 30 days

Blood sampling every 7 days

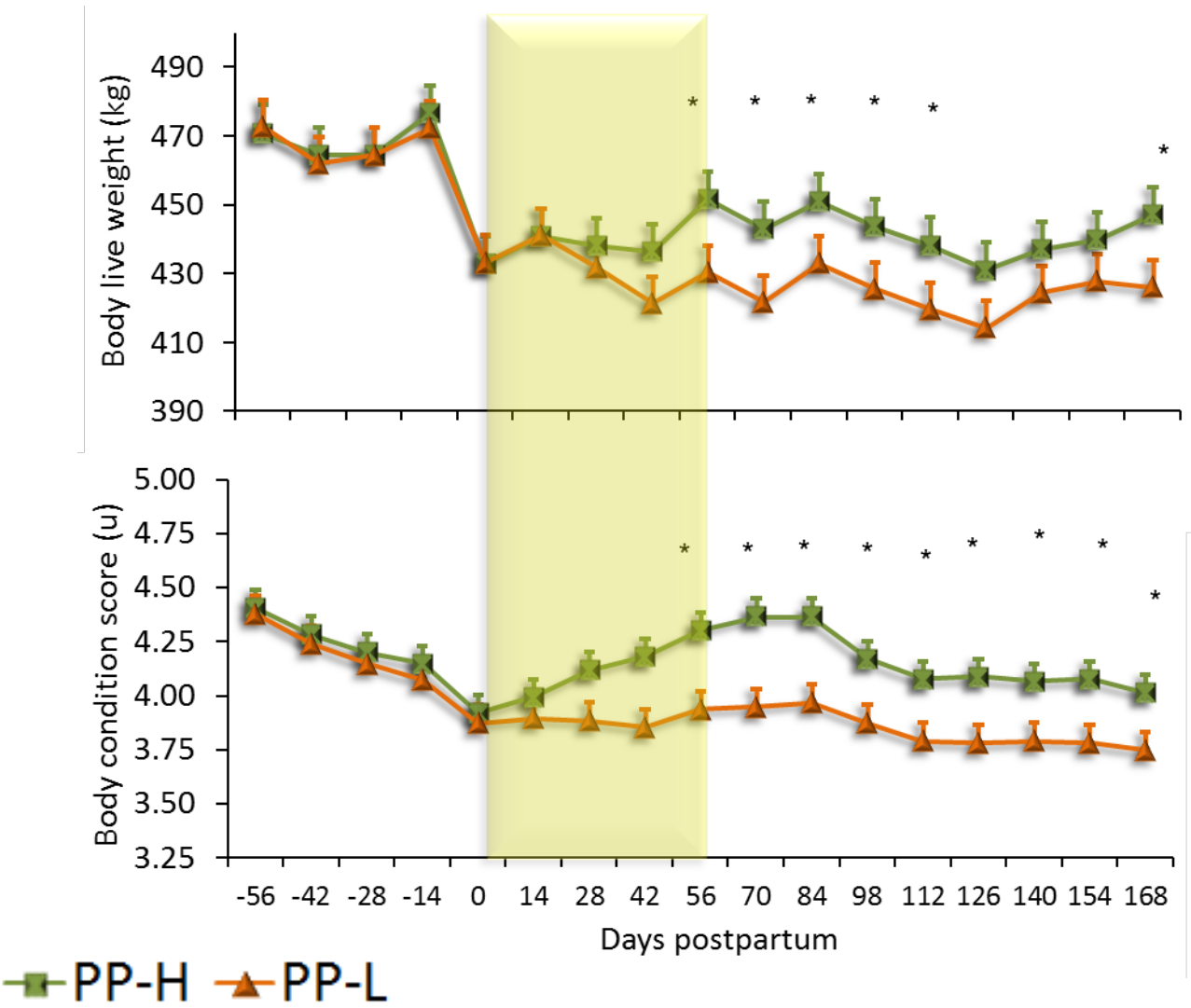


Main results

There was no interaction between the main factors (pre- and postpartum treatments) on any of the evaluated variables

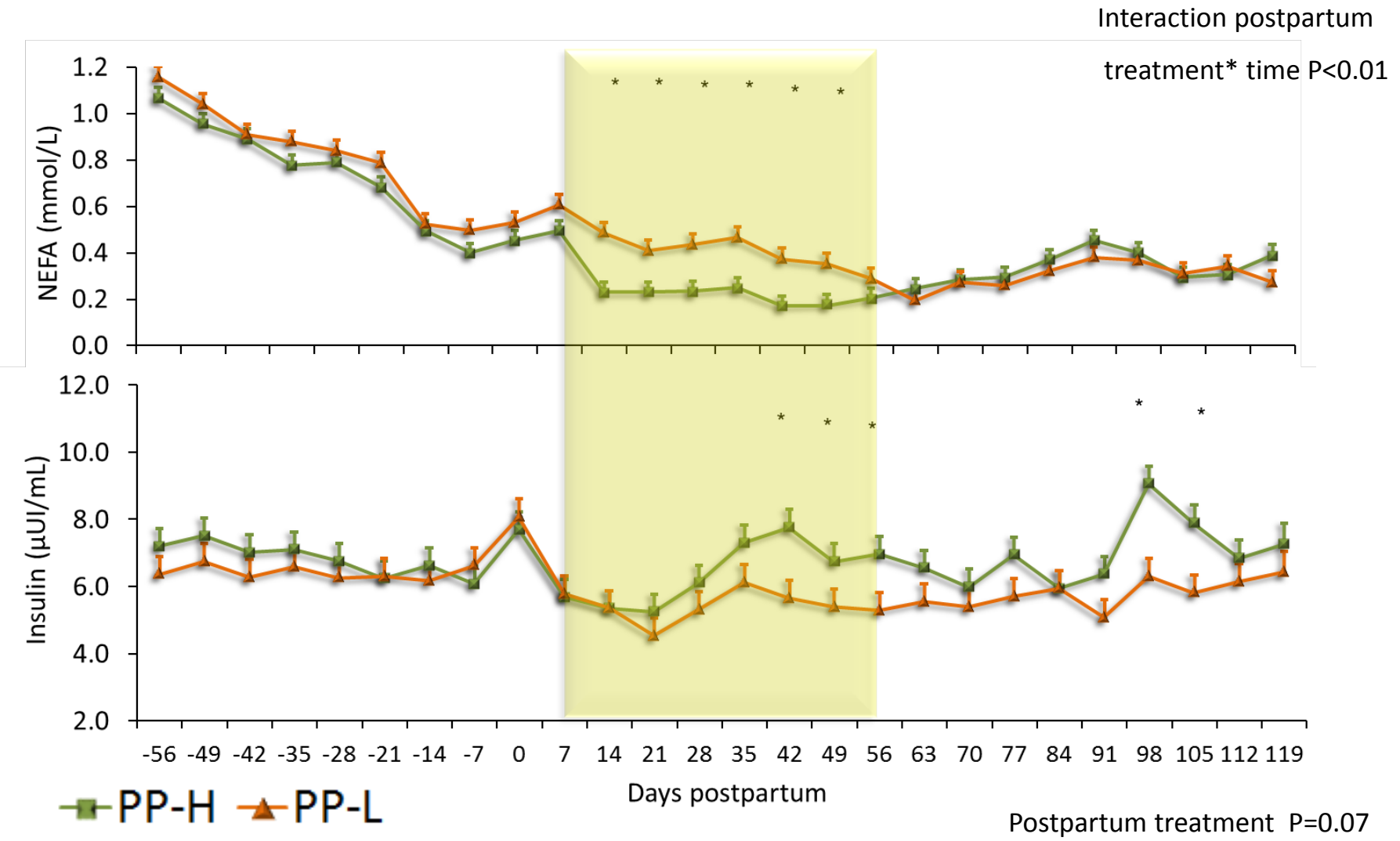


Live Weight and Body Condition Score

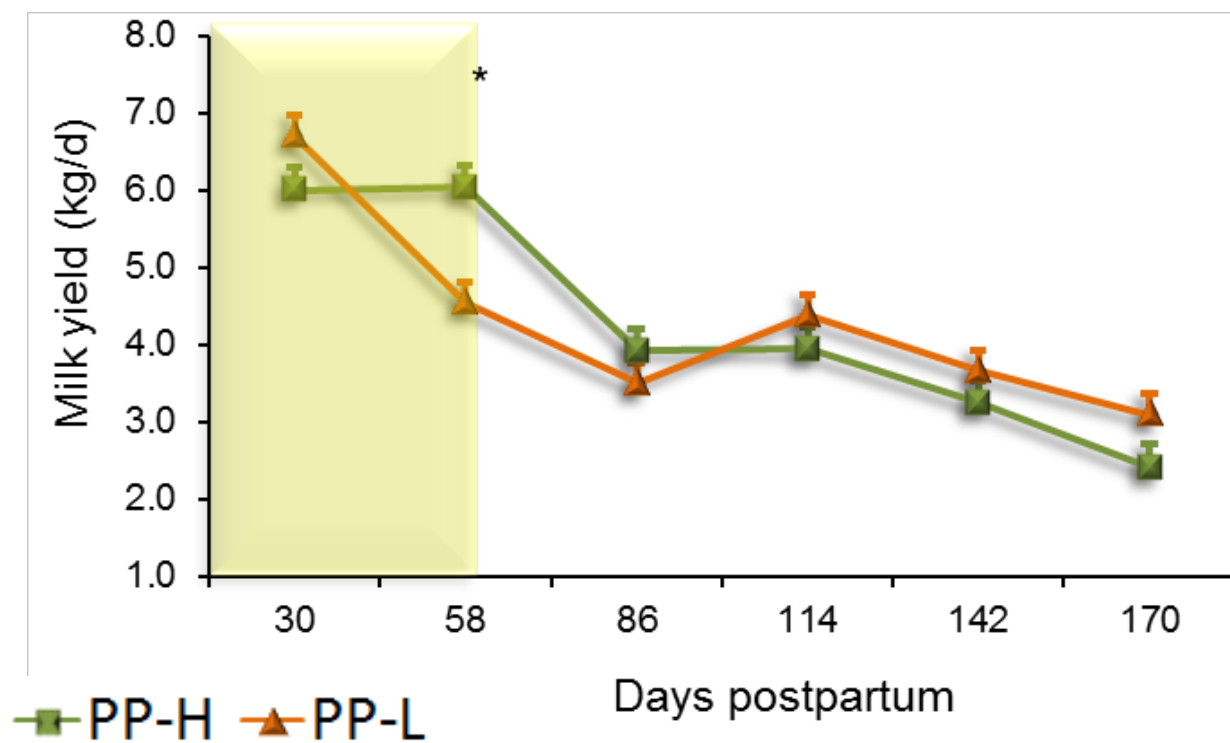


Interaction postpartum treatment* time P<0.01

NEFA and Insulin concentrations



Milk production

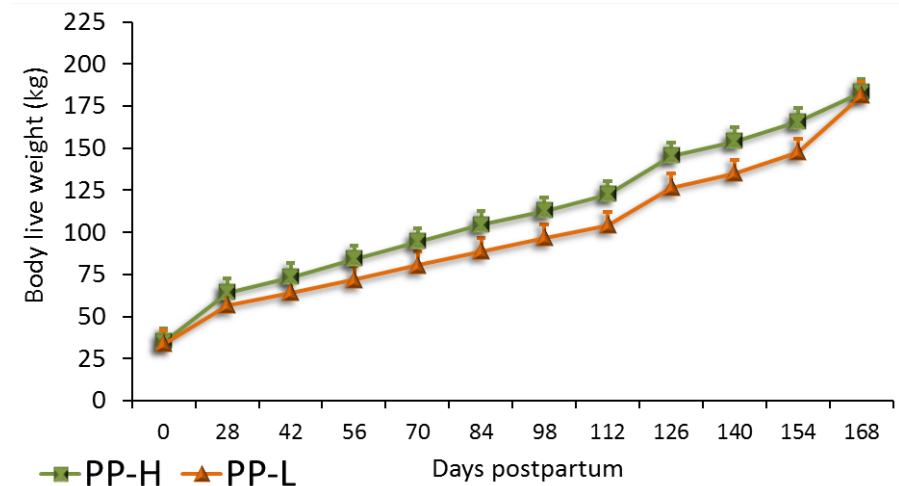


Interaction postpartum treatment* time $P < 0.01$

Calves performance

No differences between treatments

- Live weight at birth: 34.2 ± 0.8 kg
- Daily live weight gain: 0.815 ± 0.06 kg/a/d
- Live weight at weaning: 182.7 ± 2.5 kg



- Reproductive parameters

	PP-H	PP-L	P
Cows cycling 70 days pp (%)	58	29	0.04
Post-partum period (days)	102	113	0.01
Calving to conception period (days)	111	118	0.02
Pregnancy (%)	63	25	0.01

Conclusions

- Only forage allowance during the POSTPARTUM period affected the reproductive performance
- During the prepartum period high availability of forage had no effect on any of the variables evaluated (maybe because of ruminal capacity; low protein/energy; high energy loose in activity on maintenance)
- Practical implications:
very difficult to accumulate forage in winter!!!
better to maximise the use of pastures in spring (easier)

Merci !

Thanks!

