

Effect of short fast-refeeding and light program on rabbit doe reproduction

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Oestrus synchronization before AI

Hormonal (eCG)
treatment



No hormonal treatment
(biostimulation)



Light Program ✓



+ Doe-Litter Separation + Light Program ✓



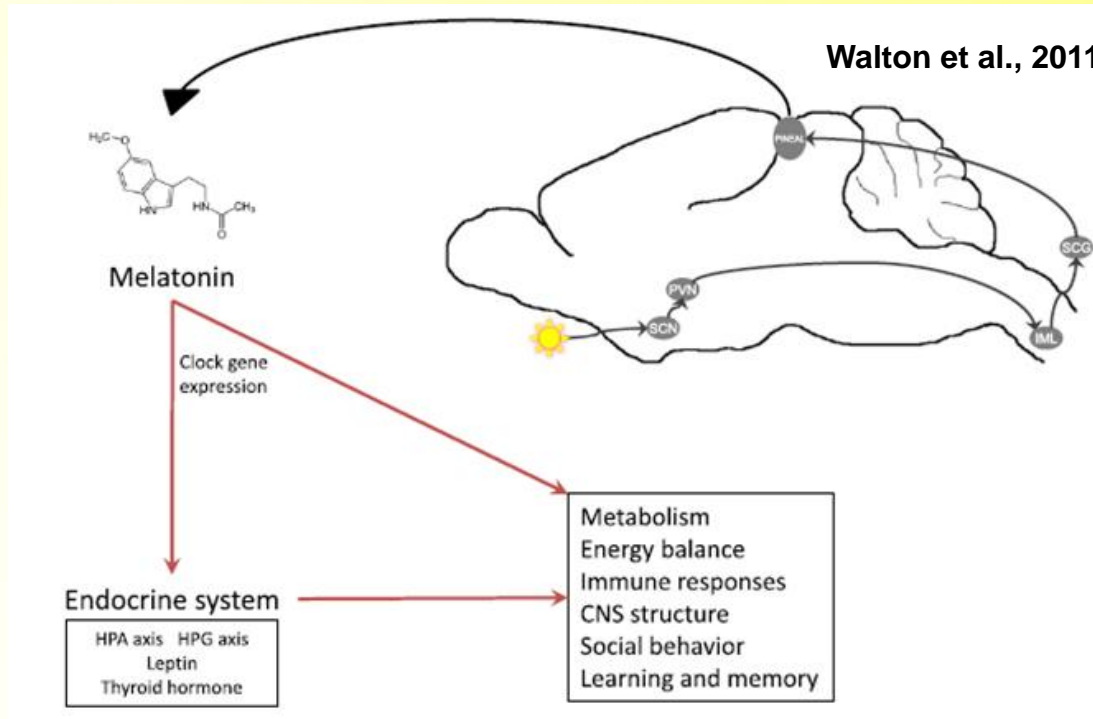
+ Fast-Refeeding + Light Program ?

Nursing
Lighting
Feeding

Neuro-Hormonal Effects



Reproduction
Feed Intake
Milk Yield
Doe/Kit Behaviour



Next
Kindling

Reared
Litter

Light Program: Increased Duration and Intensity of LED Lighting before AI

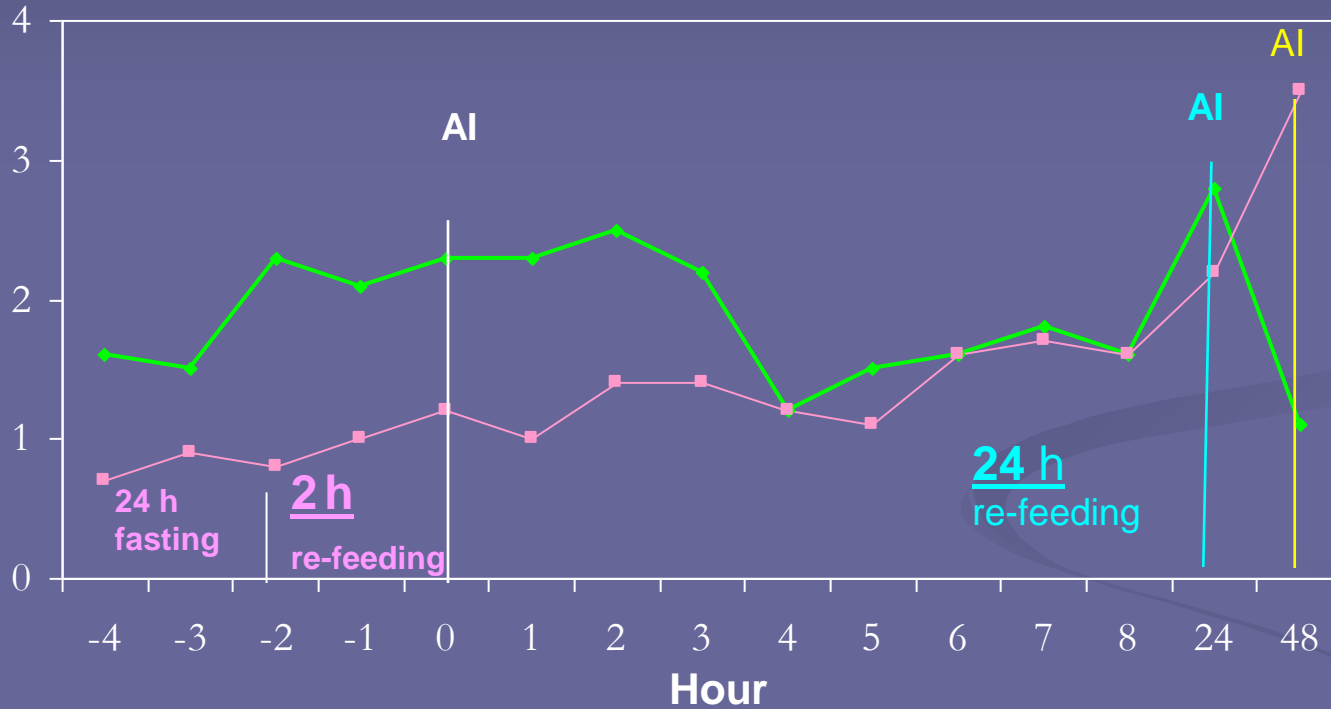
Aim: Fast-Refeeding plus Light Program as Biostimulation?

TIMING of FASTING

Leptin and Reproduction

Leptin, ng/ml

(Brecchia, 2004)



48-50 h
Re-feeding

Brecchia (2004)

Nursing: free

Fertility: 43% < 53%

Kits born alive: 6.6 < 7.7

Bonanno (2004)

free

59% > 53%

8.8 > 7.9

Eiben (2008, 2013)

restricted

82% > 74%

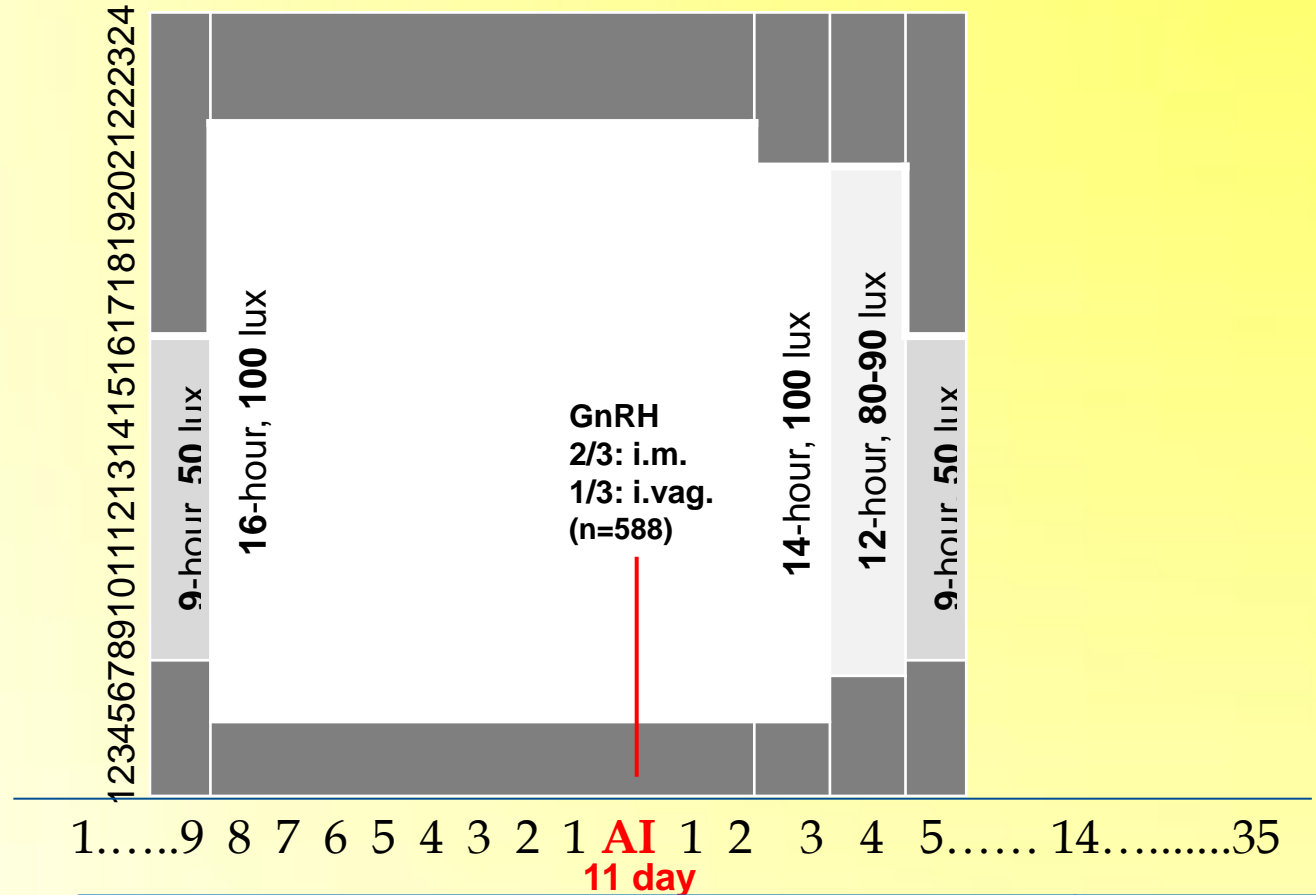
9.8 > 9.5

free

71% = 72%

6.8 < 7.9

Light Program: Increased Duration and Intensity of LED Lighting before AI



Controlled nursing (9-10 h) between 1-14 day

Free

Groups:



Light program (L): Only Light Stimulation, **ad libitum Feeding**

24 h 48-50 h



+



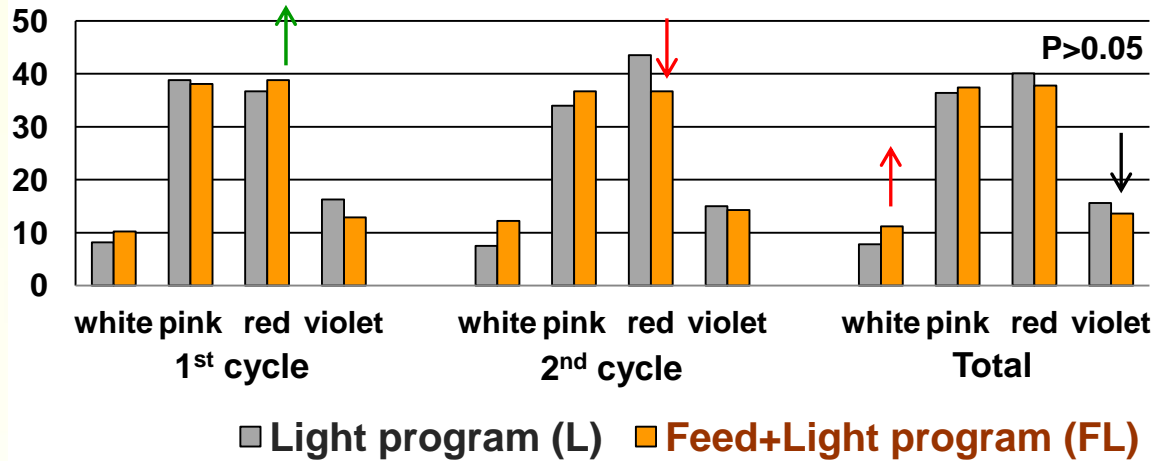
Feed +Light Program (FL):

F
A
S
T

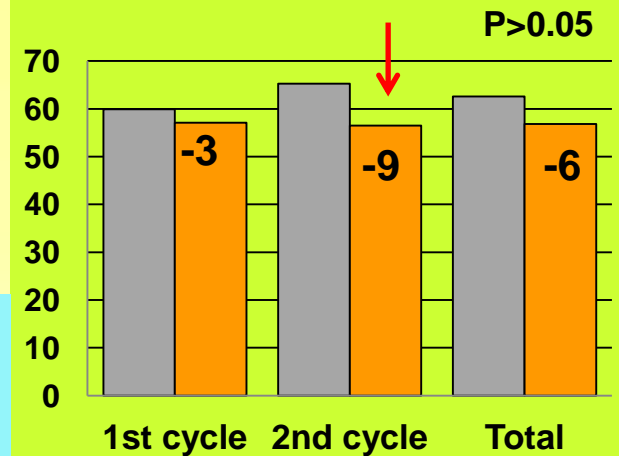
Ad lib
re-
feeding
before
AI

Sexual Receptivity

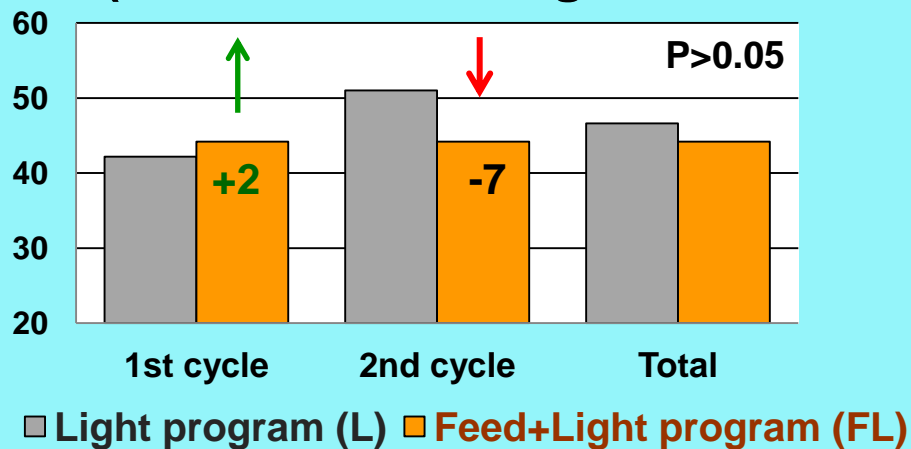
Vulva colour, %

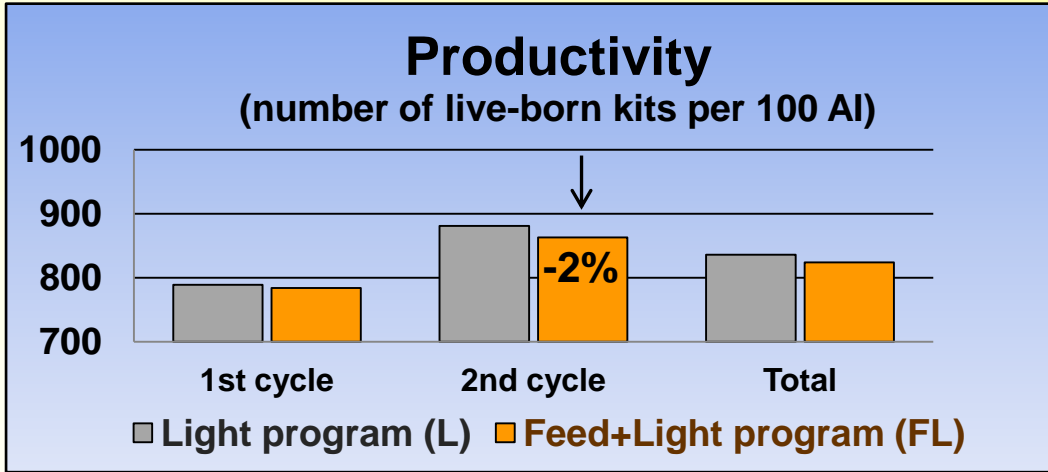
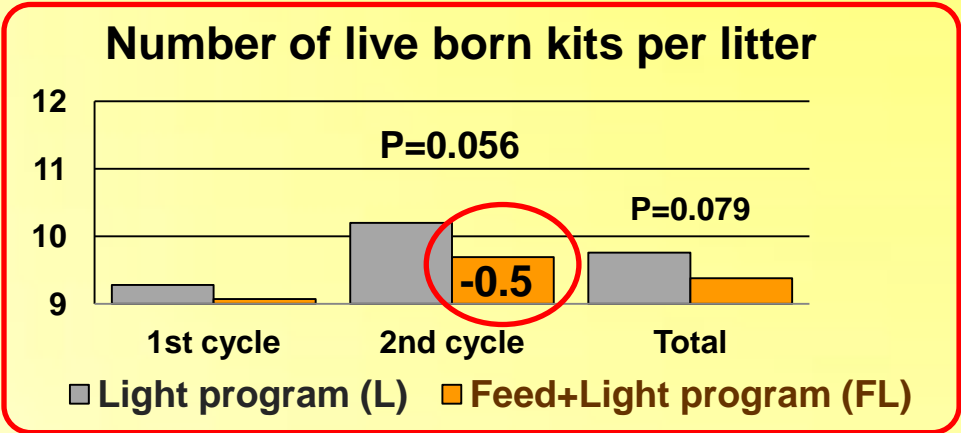
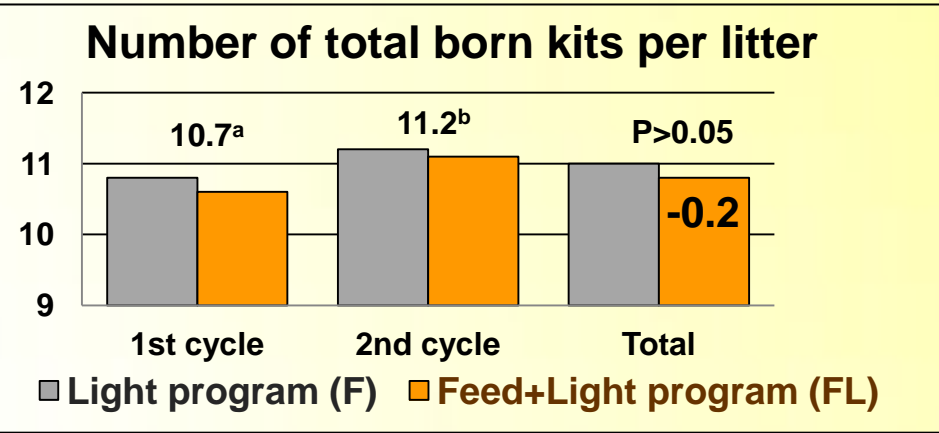
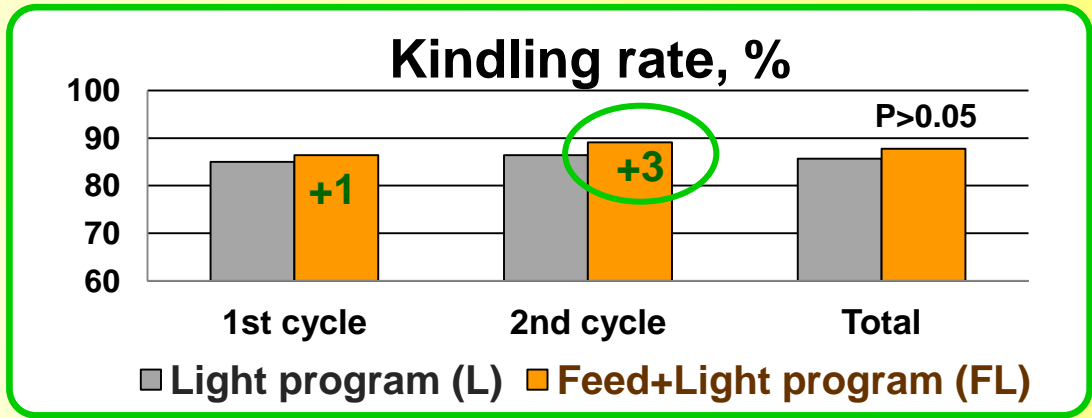


Turgid vulva, %



Sexual receptivity, % (red/violet and turgid vulva)





Conclusions

The productivity of light-stimulated rabbits cannot be further increased with fast-refeeding combined with light stimulation.

Thank you for your attention!

