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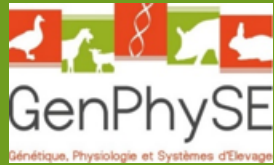
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# How high is herbage intake of organic rabbits grazing fescue or sainfoin ?

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# Organic rabbit breeding

Organic



Photo Gidenne T.

Conventional



Photo Lebas F.

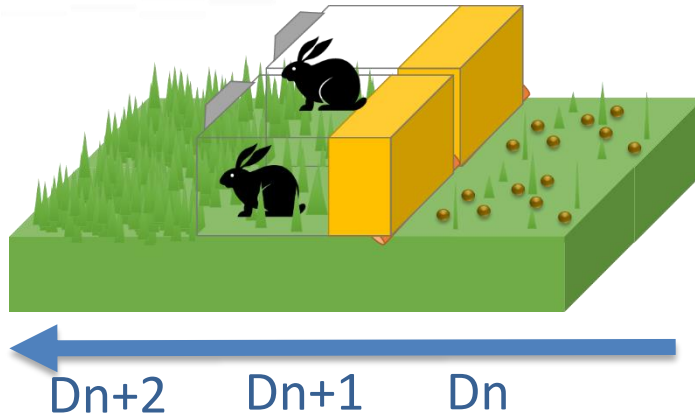
Grazing management

Lack of knowledge on herbage intake / nutrition

Roinsard et al (2016)

Potential production unknown  
Most relevant management practices yet to be defined (herbage allowance, stocking rate, regrowth)

# The moving cages



Grazing access 0.4m<sup>2</sup>/rabbit/day

# Experiment

At weaning (43 days of age)



3 rabbits/cage  
5 cages



3 rabbits/cage  
5 cages

**Tall fescue (Pure stand)**



**Pasture dominated by sainfoin**



**+ 60g/day/rabbit**

# Herbage intake measurements



Photo Legendre H.

Manual shear  
to cut at 3 cm

- Weakly;
- Herbage samples at 2 locations per cage :
  - On the side of the cage = Herbage allowance,
  - Within the cage (after moving the cage) = Herbage refusals,
  - 0.25m<sup>2</sup> per location;
- Determination of dry matter DM (48h-60°C).

Herbage = Grass + Forbs + Legumes

# Definitions

**Herbage Intake = Herbage allowance – Herbage refusals**

$$\text{HI} = \text{HA} - \text{HR} ,$$

expressed per kg of metabolic weight ( $\text{kg}^{0.75}$ )

**Pasture utilization = Herbage Intake/Herbage Allowance**

$$\text{Pasture utilization} = \text{HI} / \text{HA} ,$$

expressed in %

# Results

During 1<sup>st</sup> week of grazing  
(43-50 days of age)

Pasture	Sainfoin	Tall Fescue	<i>P Value</i>
Herbage Intake g DM/kg <sup>0.75</sup>	16	8	0.39
Pasture utilization %	16	20	0.8

Limited HI on both pastures (HA being sufficient to cover rabbit feed requirements)



# Results

Over the whole grazing period  
(43-100 days of age)

Pasture	Sainfoin	Tall Fescue	P Value
Herbage Biomass t DM/ha	5,1	2,2	
<b>Herbage Allowance</b> g DM/kg <sup>0.75</sup>	<b>120</b>	<b>60</b>	< 0.01
<b>Herbage Intake</b> g DM/kg <sup>0.75</sup>	<b>59</b>	<b>37</b>	< 0.01
Pasture utilization %	47	65	0.72

- HA : Sainfoin > Fescue (+100%)
- HI : Sainfoin > Fescue (+60%)
- Pasture utilization ≠ NS

# Results

## At the maximum

Pasture	Sainfoin	Tall Fescue
Week	9	5
<b>Herbage Intake</b> g DM/kg <sup>0.75</sup>	<b>112</b>	<b>51</b>
<b>Pasture utilization</b> %	<b>70</b>	<b>60</b>
Herbage intake g fresh matter (FM)	975	
<b>FM intake/Live weight</b> %	<b>39</b>	

• Sainfoin :

Max HI end of the experiment

• Fescue :

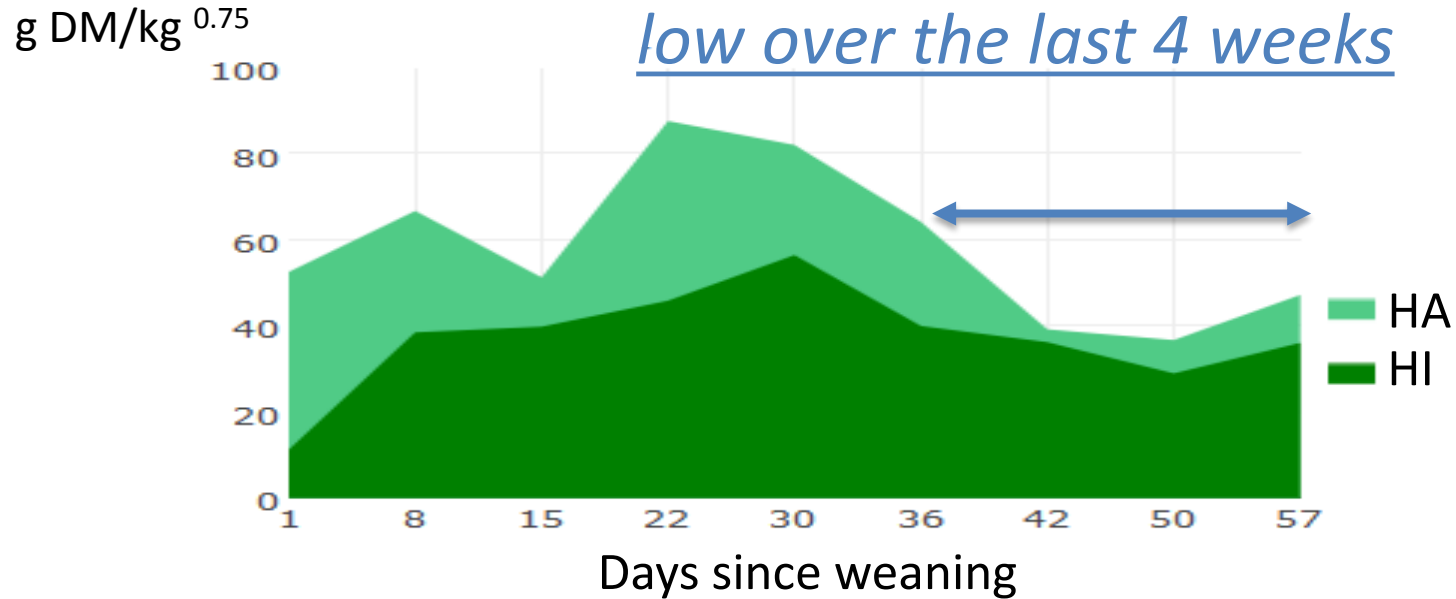
- 54% HI

Max week 5, but HA was low afterwards

# Results

## With Low Herbage Allowance

Fescue : HA dropped and remained low over the last 4 weeks



# Results

## With Low Herbage Allowance

Pasture	Tall Fescue MAX	Tall Fescue Last 4 weeks
Week	5	<b>6-9</b>
Herbage allowance g DM/kg <sup>0,75</sup>	85	<b>47</b>
Herbage Intake g DM/kg <sup>0,75</sup>	51	<b>35</b>
Pasture utilization %	60	<b>77%</b> <b>93% in week 6</b>

# Conclusion

MAX Pasture  
utilization= **93%**



Photo Legendre H.

MAX Herbage Intake  
= 110 g DM/kg<sup>0.75</sup>  
= 40% Live weight



Photo Duprat A.

**A reduction of herbage allowance quickly results in a restriction of herbage intake**



# Conclusion



Photo Gidenne T.

- **When herbage allowance  $< 85 \text{ g DM/kg}^{0.75}$  stocking rate must be adjusted :**
  - Greater grazing area,
  - Less animals in one cage.
- More trials to confirm these values are needed

# Thank you for your attention



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