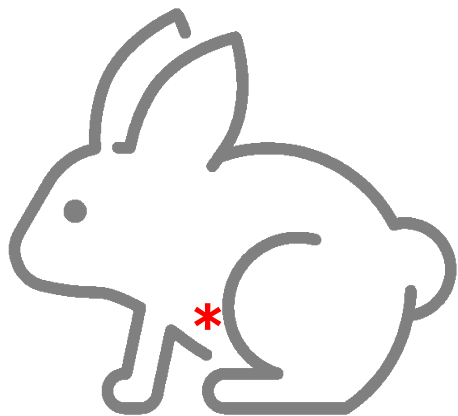


# A rabbit nutrition hypothesis to prevent digestive problems “Feed the fusus coli”

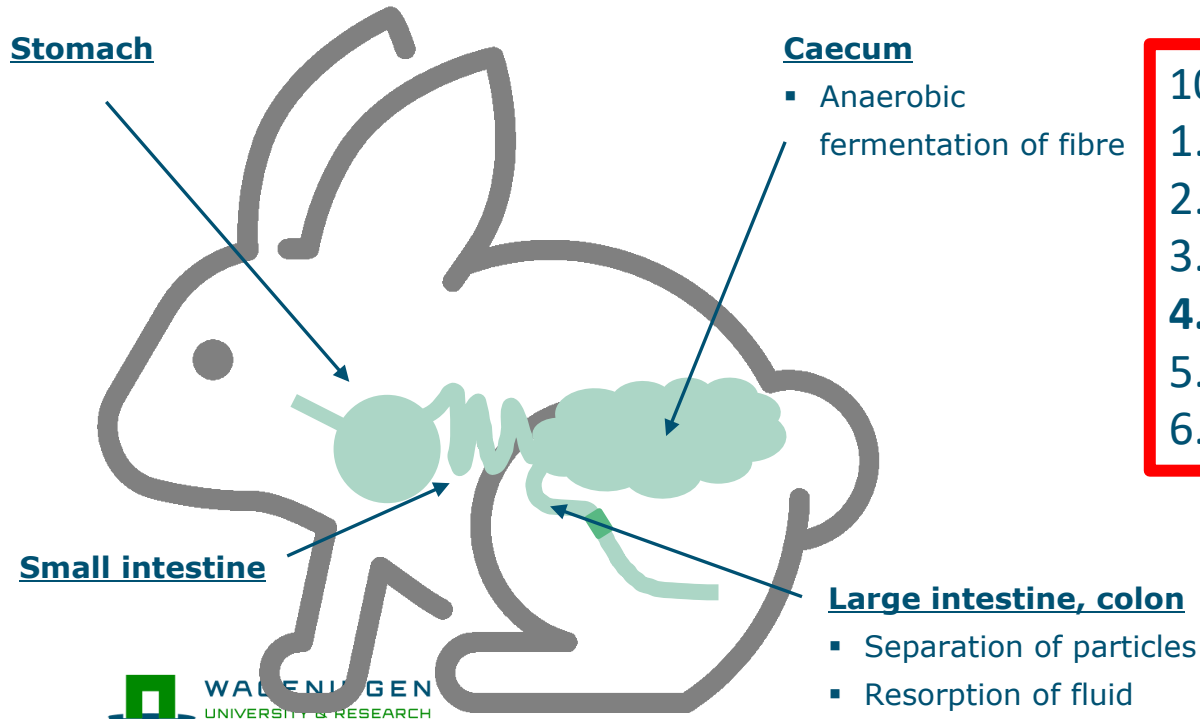
Malou van der Sluis & Karel de Greef

*Wageningen Livestock Research*



# The rabbit is a fibre converter (hind gut)

In intensive production systems: treated as a monogastric meat producer



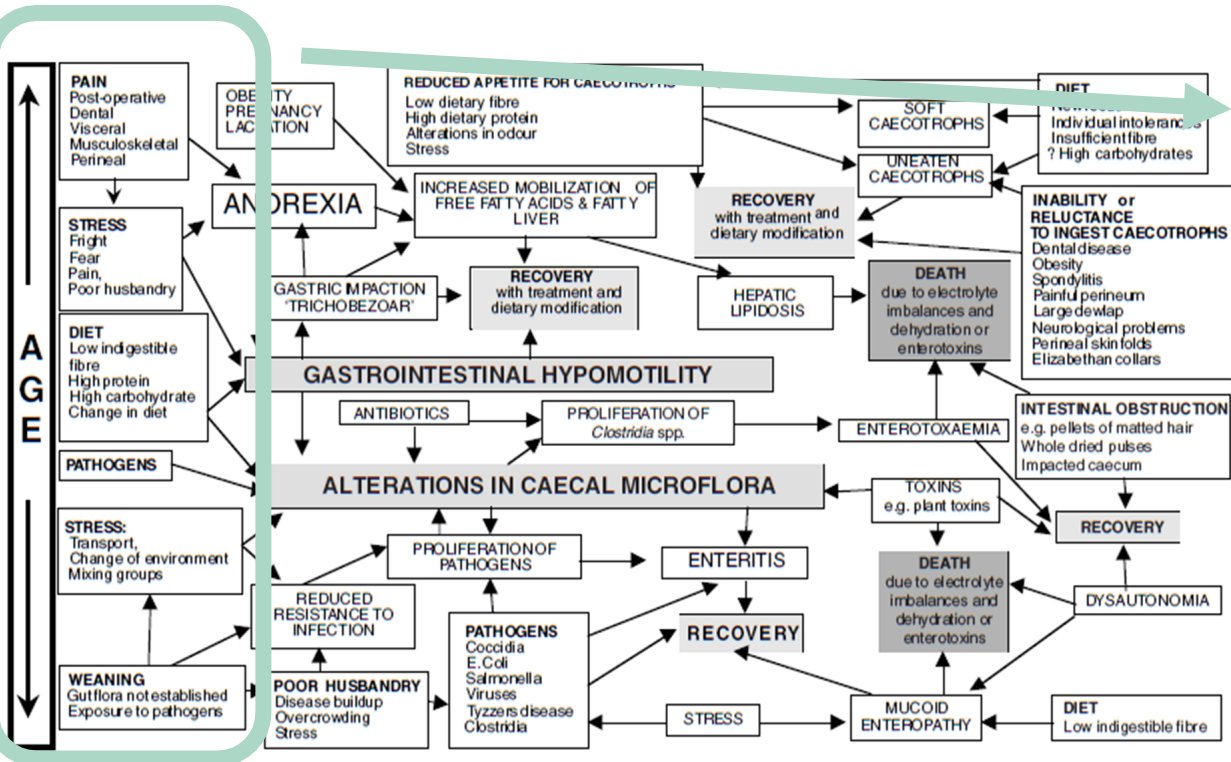
10 minutes to

1. Introduce rabbit production
2. Introduce a health problem
3. Explain the physiology
4. **Hypothesize a mechanism (idea)**
5. Validate the idea
6. Draw lessons

# In short:

1. **Introduce rabbit production:** \* Meat rabbits are forage selectors fed as monogastrics. \* Fibre is essential for normal functioning (Gidenne et al!!)
2. **Introduce a health problem:** At high production levels: diarrhea occurs, despite adequate fibre
3. **Explain the ~~pathology~~**

# Epizootic Rabbit Enteropathy *dikkebuikenziekte*



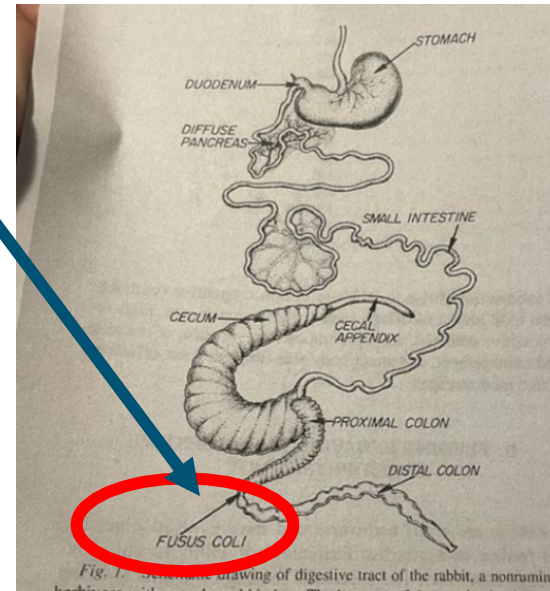
## some key factors

- Fibre is essential, especially ADF
- Easy nutrients are risk factors
- Stress is a predisposing factor

Figure 10.1. Inter-relationship of predisposing factors and causes of gastrointestinal disease in rabbits.

# In short:

1. **Introduce rabbit production:** \* Meat rabbits are forage selectors fed as monogastrics. \* Fibre is essential for normal functioning (Gidenne et al!!)
2. **Introduce a health problem:** At high production levels, diarrhea risks, despite adequate fibre
3. **Explain the anatomy & physiology:**
4. Hypothesize a mechanism (idea)
5. Validate the idea
6. Draw lessons

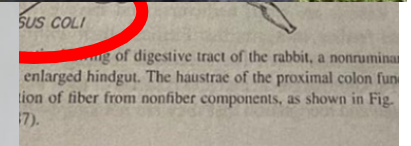


# Mechanism & Key factors

**Anatomy & physiology:** In the large intestine, chyme components are selected: back or out – fibre plays a role in this

**We know:**

1. High production is key risk
2. Fibre is essential, especially ADF
3. Easy nutrients are risk factors
4. Stress is a predisposing factor
5. **Time based feed withdrawal works**



# Our idea – finding? *Quick & dirty* **See EAAP-abstract!**

- The feed and feeding strategy is ok,
  - But the selection downstream fails: the *fusus coli* keeps sending back digesta
  - > Traffic jam, **solved by the time-based feed restriction** fix fibre should be rough!
- add the fibre source (ADF!) as larger particles

**This explanation suits all observations -> idea theoretically ~valid**

**Next: empirical (experimental / practical) validation**



# Lessons / messages (generalised)

- 1) Respect/consider the natural design of the animal (forage converter)  
as already stated in old textbooks!  
dare to go back to old stuff
- 2) Combine disciplines (here nutrition, physiology & veterinary expertise)  
don't forget practice
- 3) Dare to hypothesise (draw idea of mechanism & test)

## The problem?

- Peers support the idea,
- Industry is thinking and experimenting,
- Participating rabbits are not yet convinced...

Thank you

