



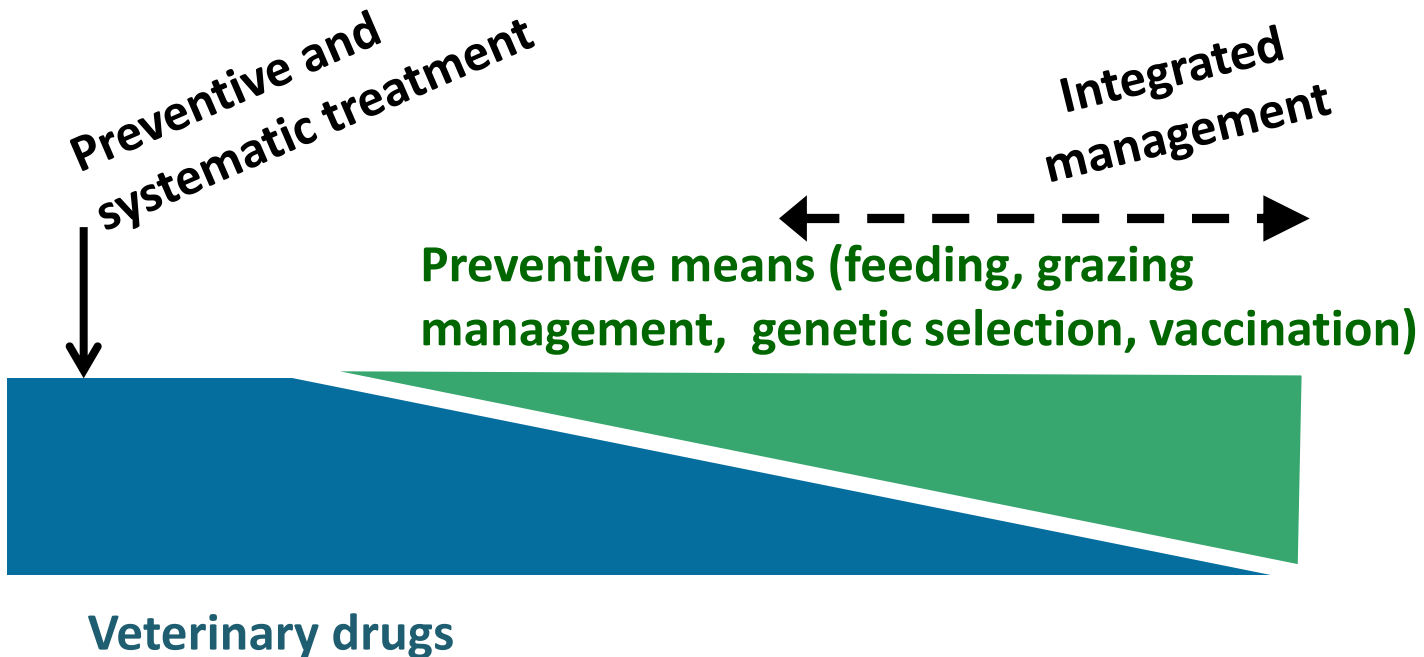
Nematode control on French sheep farms: farmer's practices and knowledge

M. SAUTIER^{1,2}, R. ROSTELLATO³, A. SOMERA⁴, J.M. ASTRUC³, P. JACQUIET⁵

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Integrated nematode management



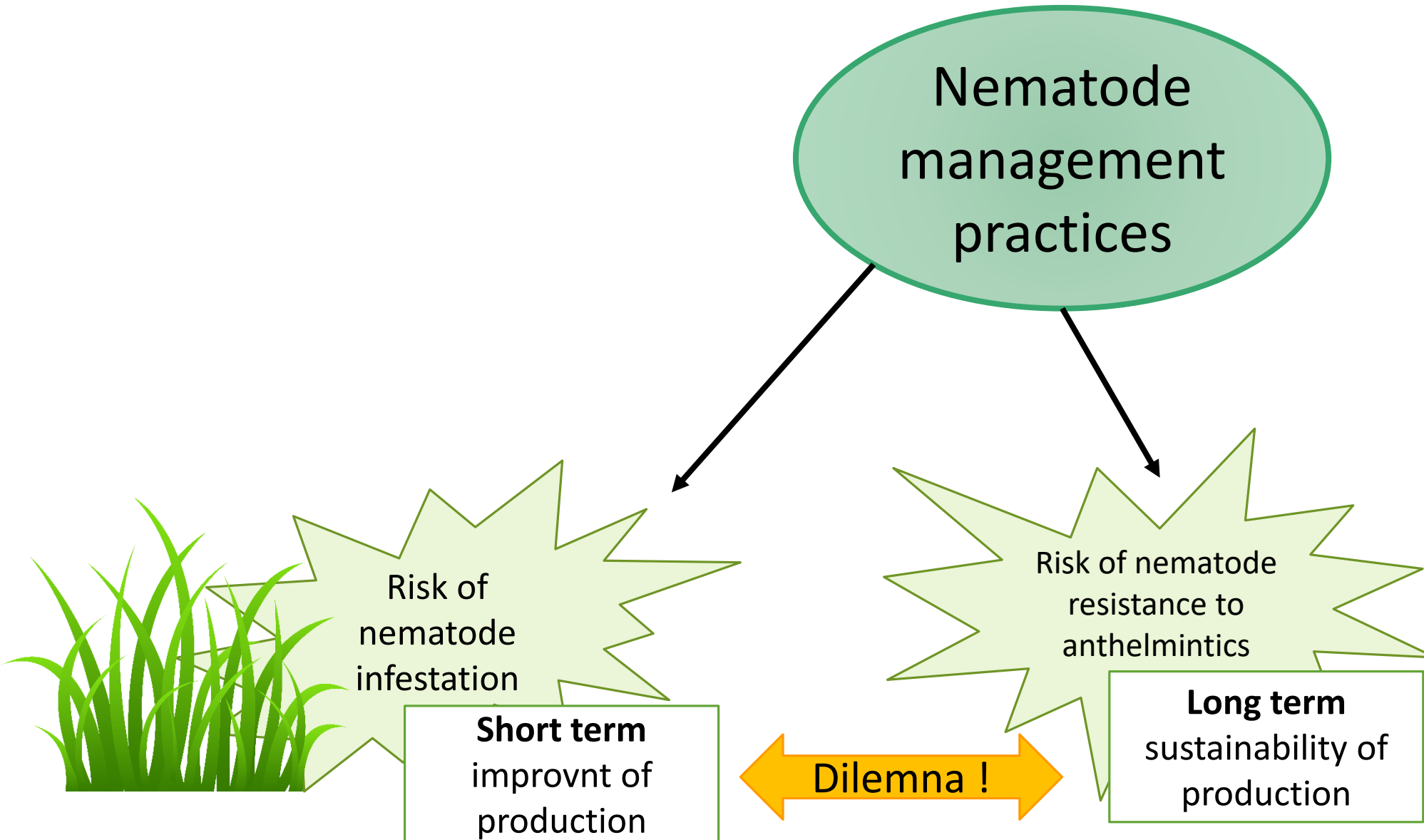
Integrated?

Animal health is integrated to other **performance criteria**

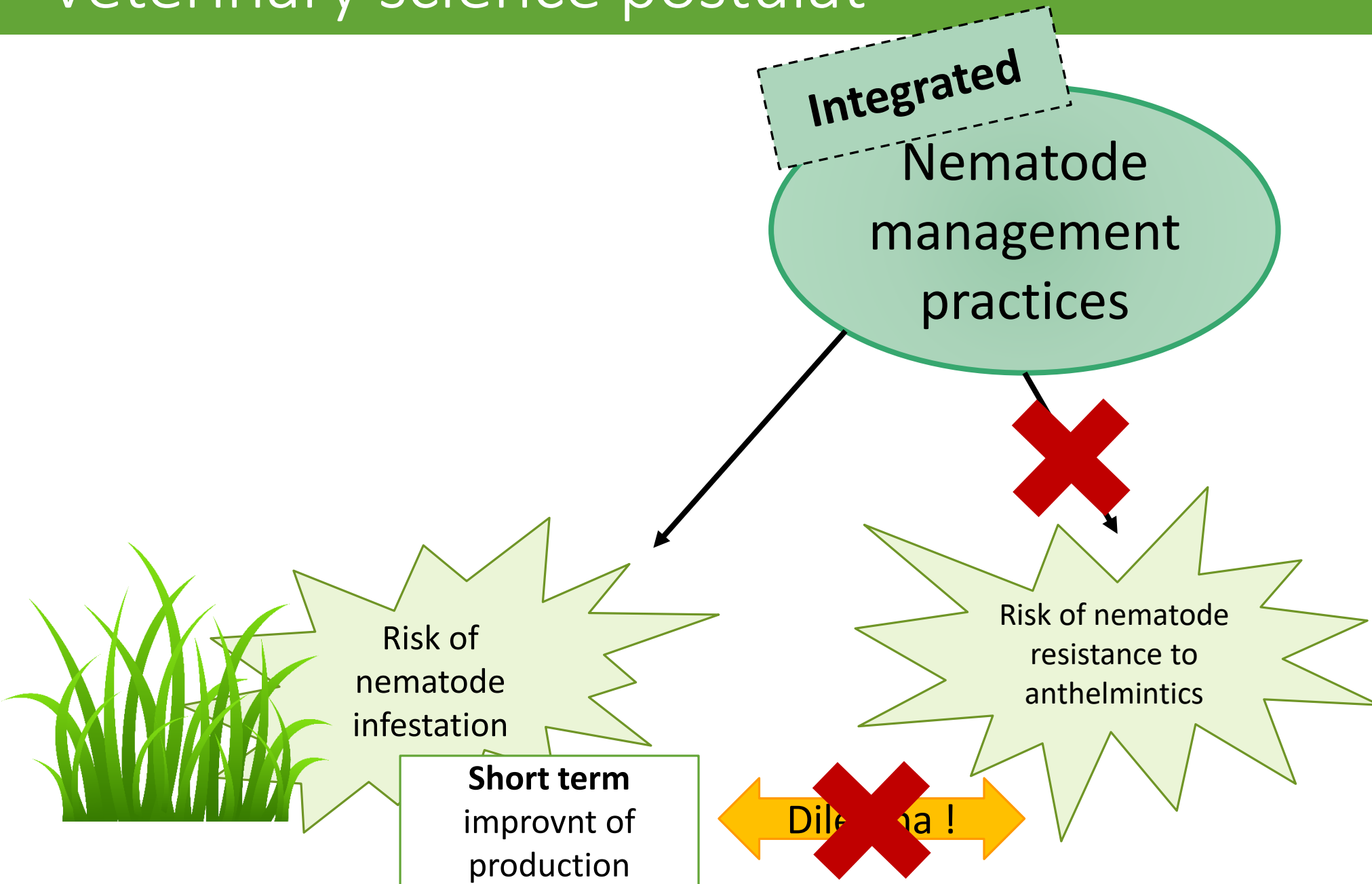
A **diversity of preventive and curative** methods are integrated together

Looking at animals health through **different disciplines**

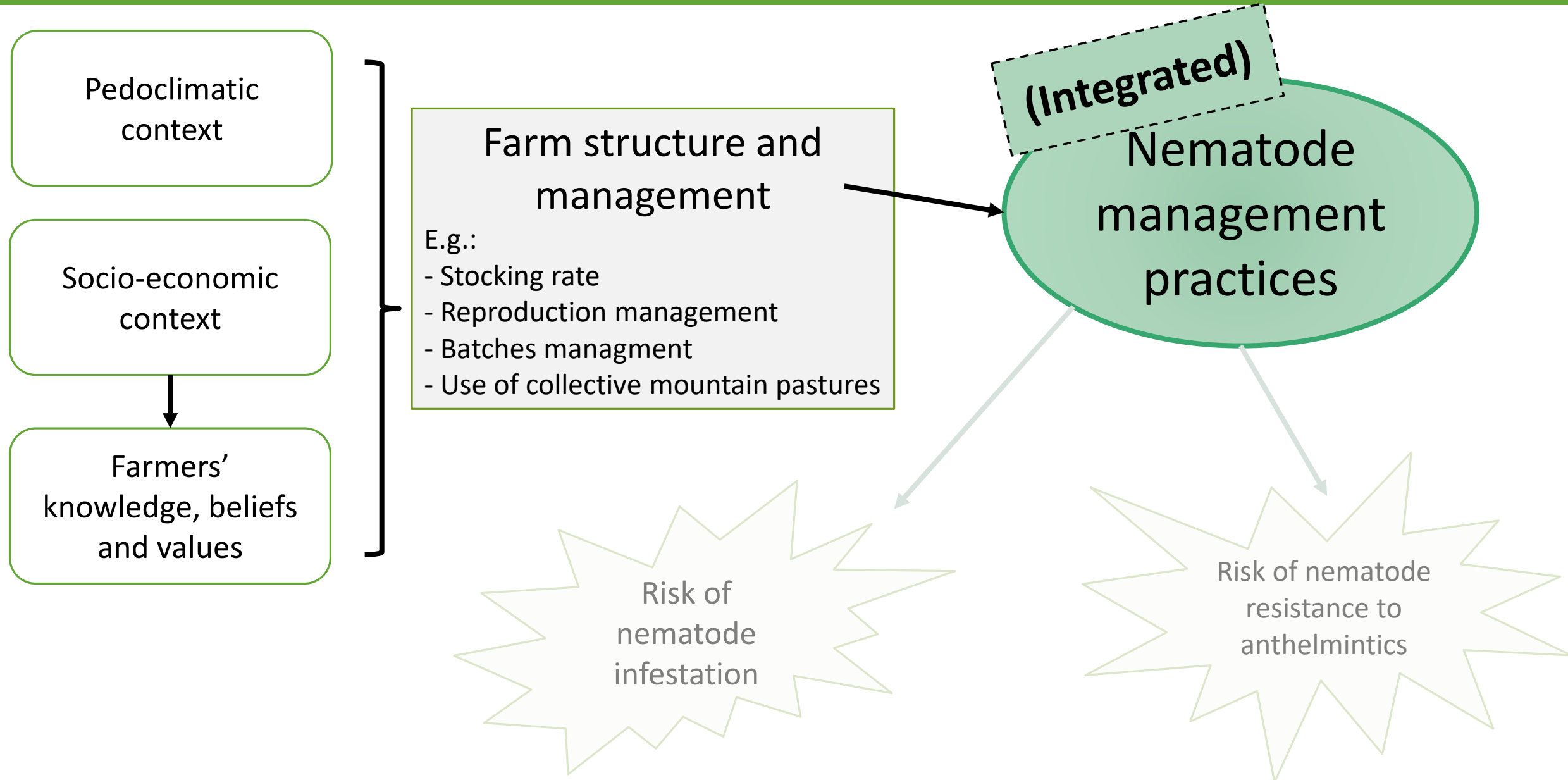
Theory and observations



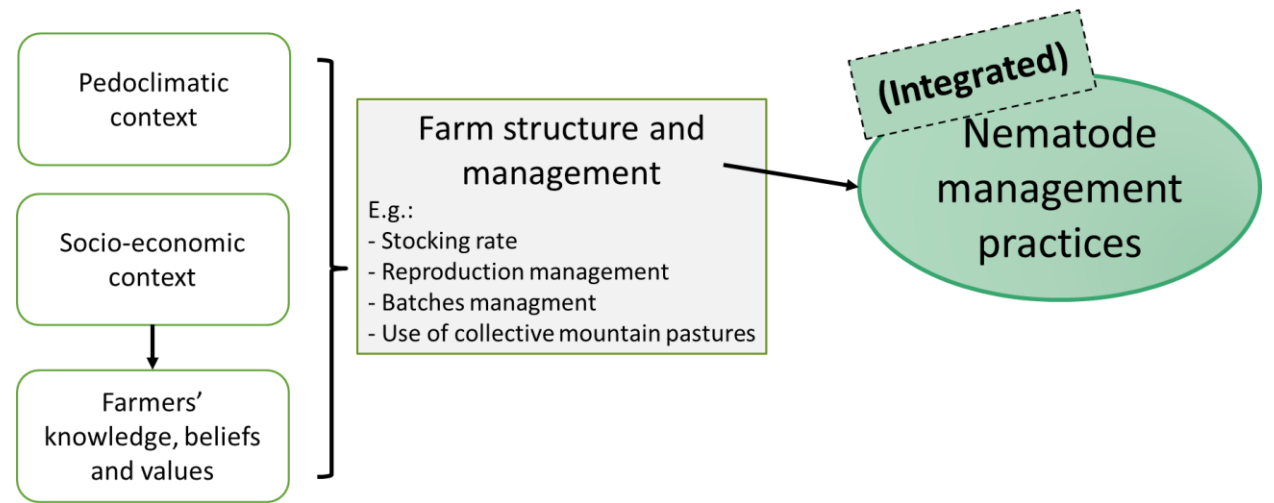
Veterinary science postulat



Agricultural science framework



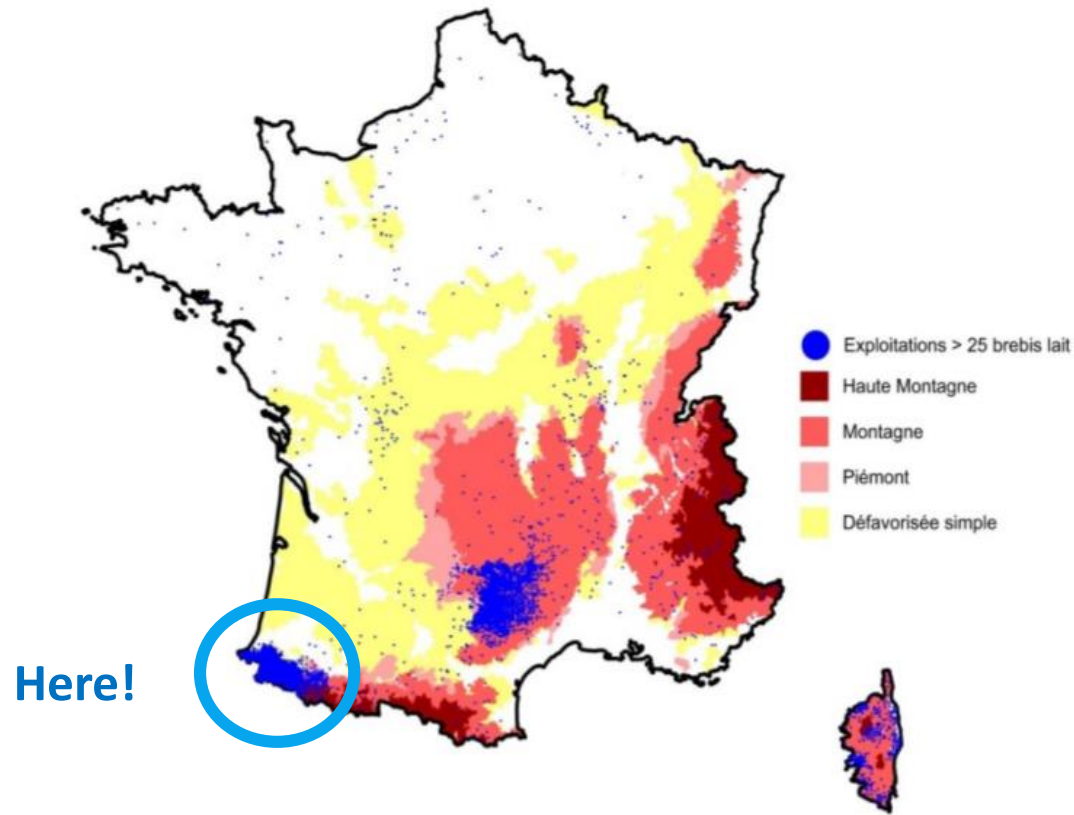
Research questions



1- Which diversity in nematode management practices?

2- Could this diversity be explained by farming system variables and farmers' knowledge and perceptions ?

Study area: Pyrénées Atlantiques



- **1st** in number of dairy sheep farmers
- **2nd** in number of ewes

Data collection



536 dairy sheep farmers

Face-to-face surveys done by 31 local extension officers

Close-ended questionnaire

- Sociodemographic informations
- Farming and livestock systems
- Practices, perceptions and knowledge for sheep nematode control
- Farmer's social network

111 questions

820 variables

Data analysis

CLUSTERING

Multiple Correspondance Analysis

+

Hierarchical clustering

Variables used for MCA	Classes	
Number of treatments	≤ 2	>2
Selective treatments	Yes	No
Dose selection strategy	Recommanded	To avoid
Practices for reducing nematode infestations	Recommanded	To avoid

DESCRIPTION OF EACH CLUSTER

- Chi² test on 39 variables

All correlated with number of treatments

Variables used for cluster description

Topics

- Farm structure
- Livestock management practices
- Interest in and willingness to pay agroecological innovations (in L of milk)
- Perceptions of farmer's own ability and success in nematode control

E.g.:

Stocking rate

Using milk recording services

Using shared mountain grassland

Ha in cereals, pastures (permanent / temporary),
rangelands

Certification scheme

Breed

L/ewes

Start of grazing season, Winter grazing

% Artificial Insemination

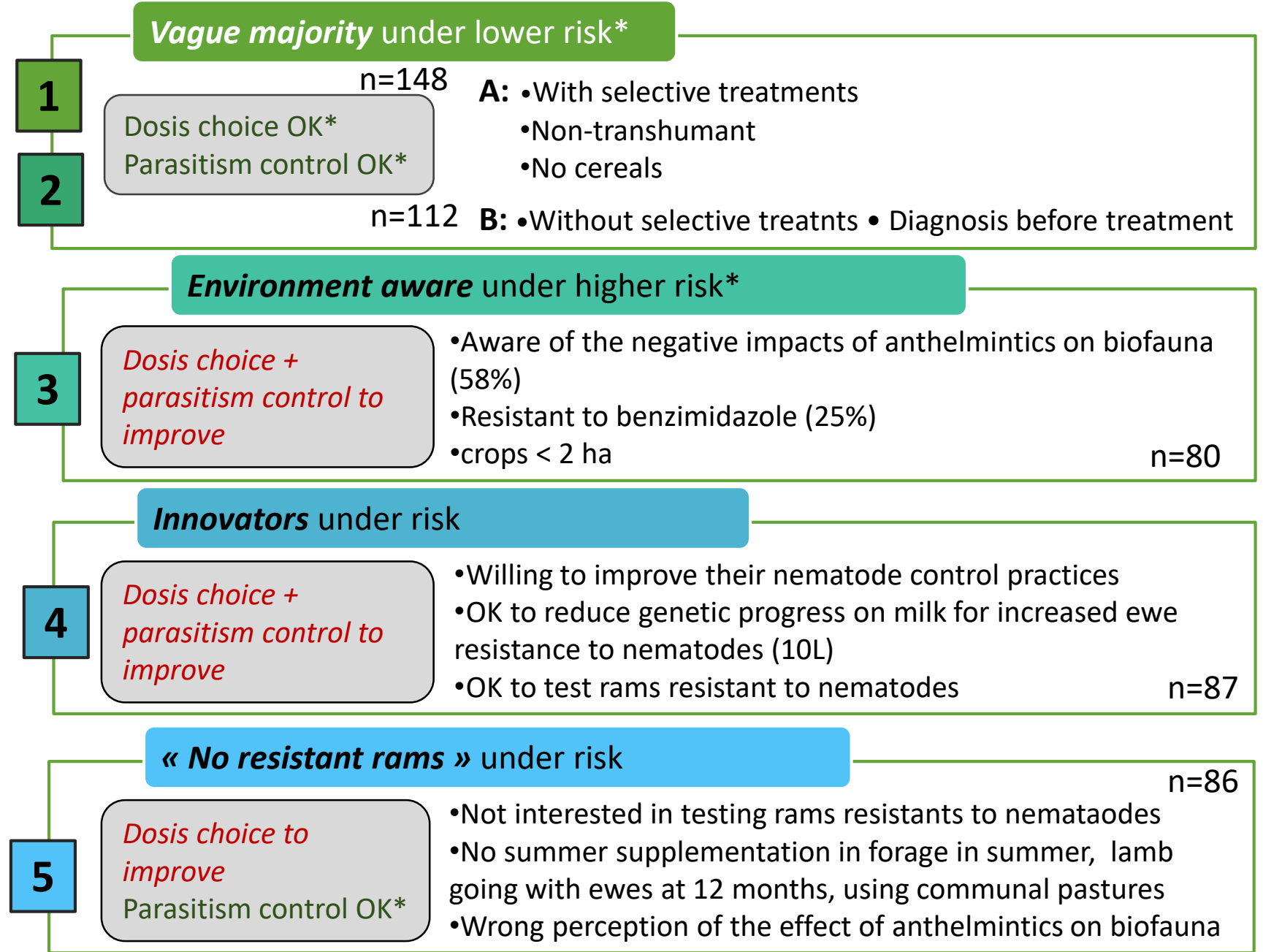
Struggling with nematode control

Seen resistance to Panacur

Interested in testing nematode resistant rams / tannins /
phytotherapy

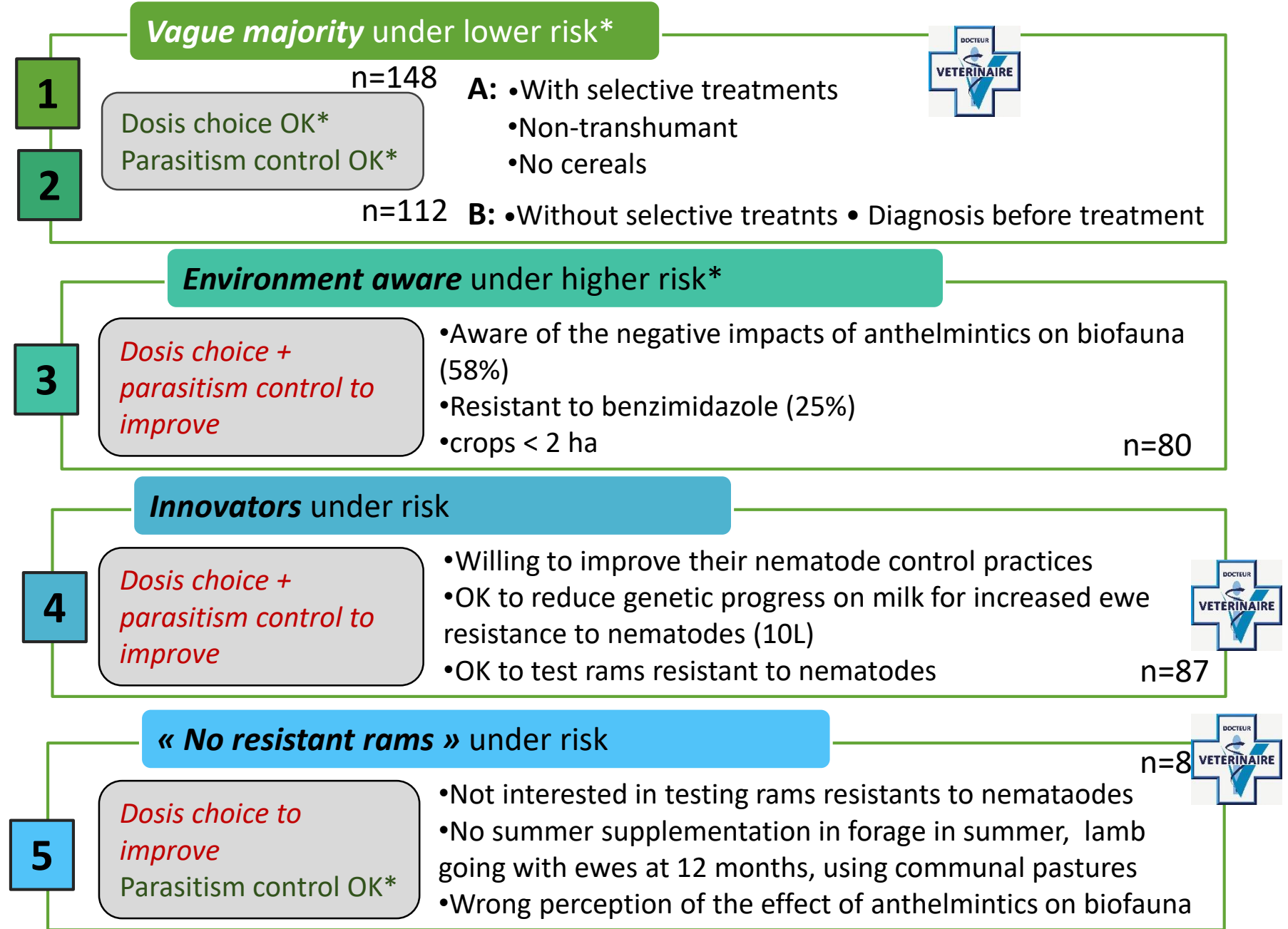
Preliminary results

Nematode management types

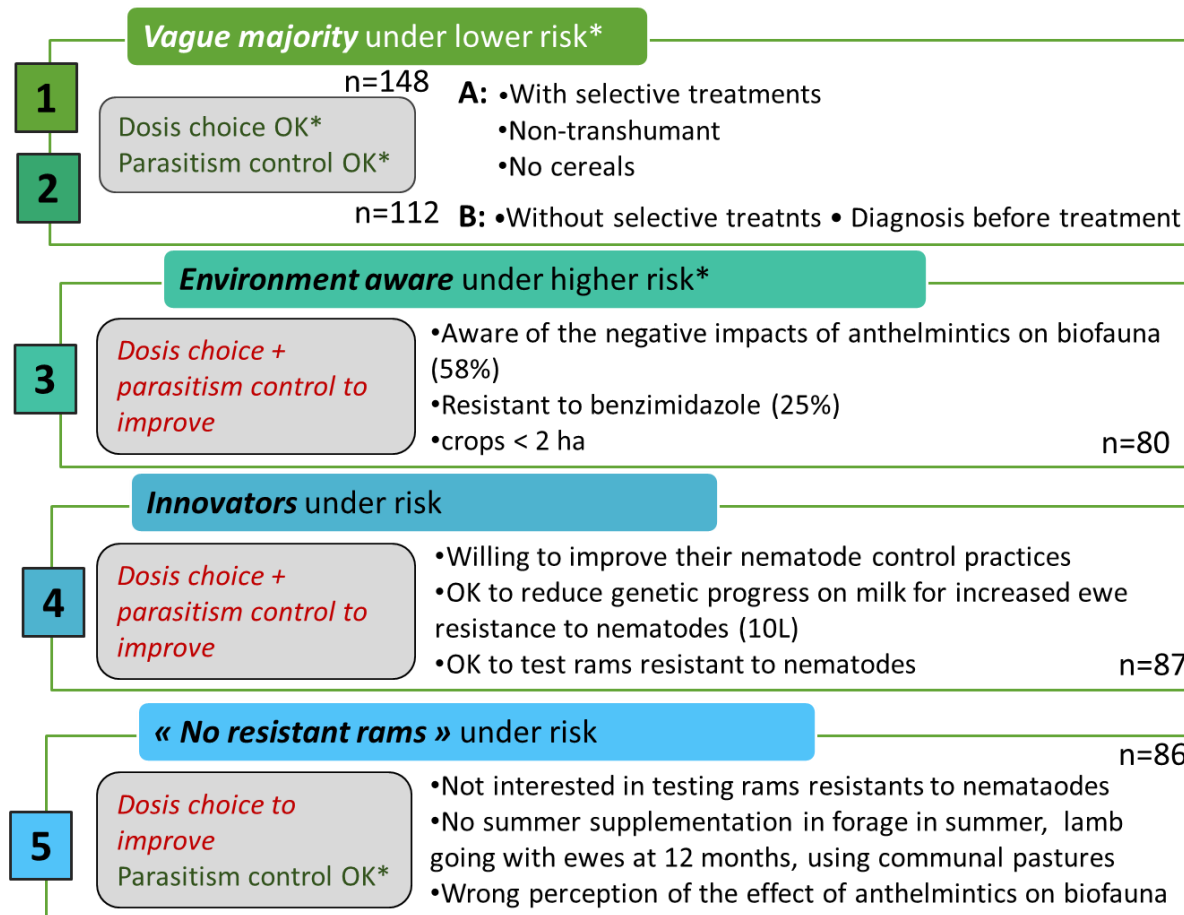


* Regarding the risk of developing anthelmintic resistance

Nematode management types



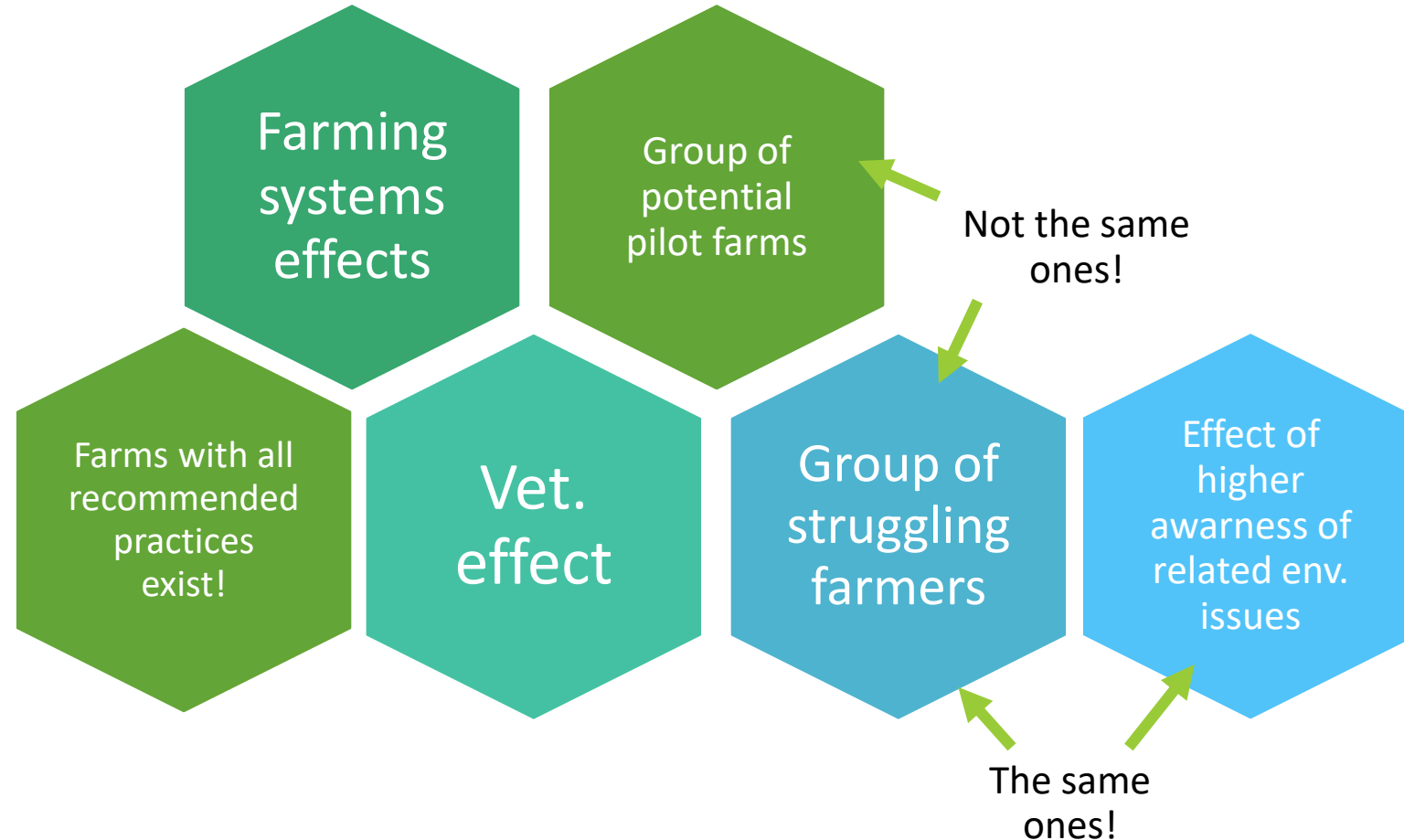
* Regarding the risk of developing anthelmintic resistance



What else?

Surprising results

Our typology on nematode management practices highlights...



To conclude: other hopeful results

Resistant
rams



74%

Phytotherapy



61%

Tannins



56%

...of farmers said they would test it

- **74%** of surveyed farmers would agree to slow down the genetic progress on milk production to have nematode resilient sheep.
- Half of them agree with giving up 10L or more in 10 years.