

Farm resilience: a farmers' perception case study

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Introduction

The number of mountain farms is decreasing

Internal factors

Use of natural resources, farmers' age

External factors

Agricultural policy, environmental conditions, market dynamics

Increasing risk of droughts

Higher prices of inputs



Objectives

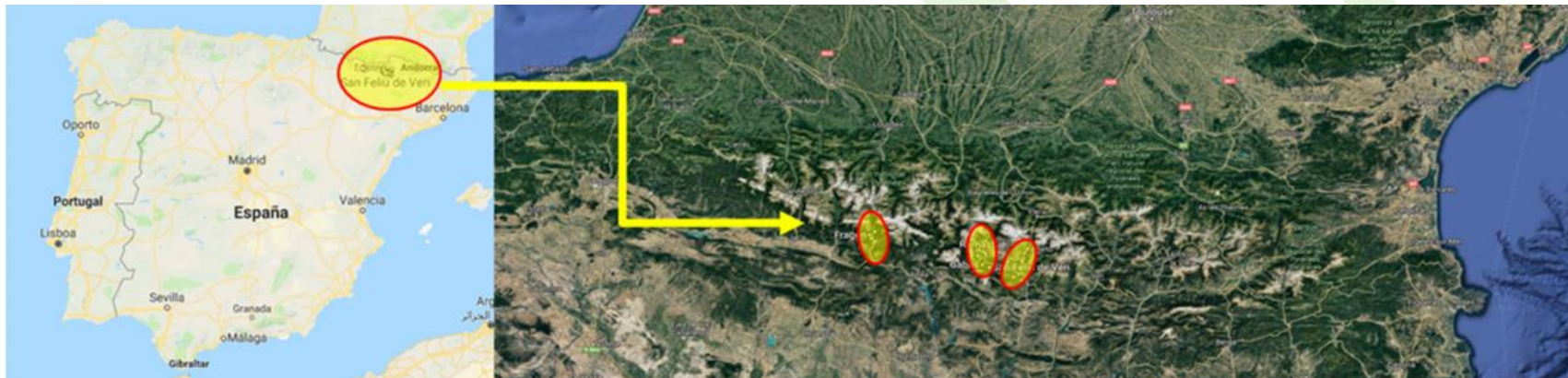
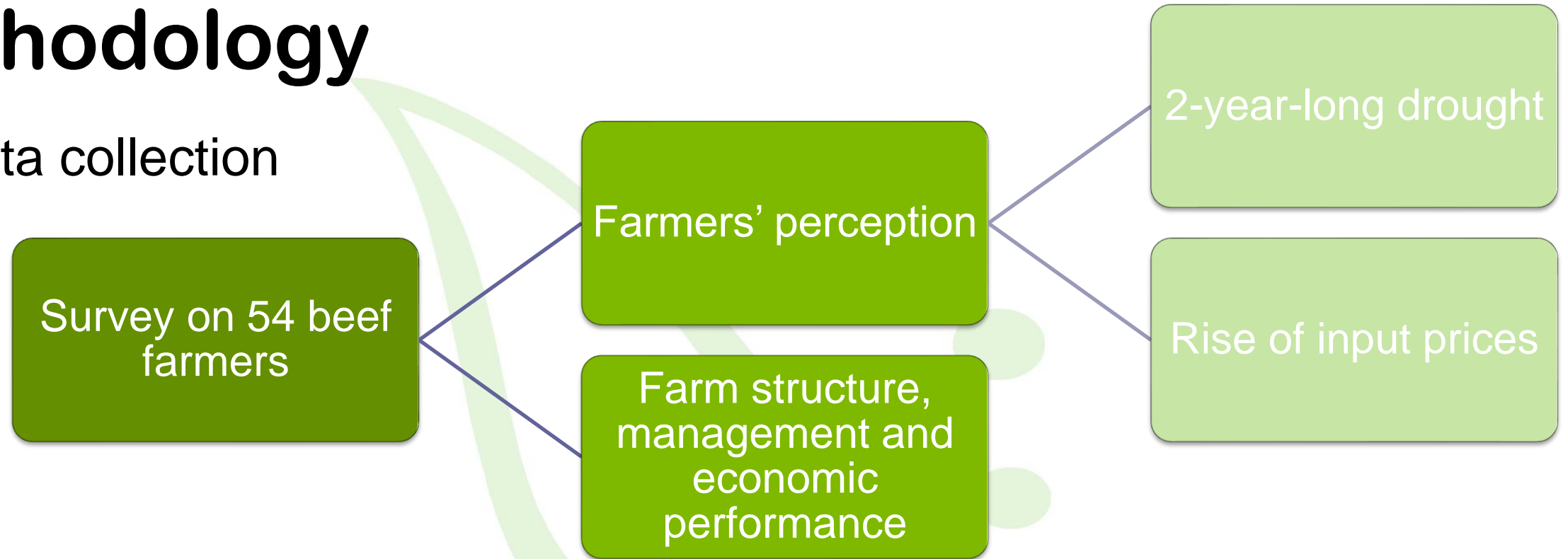
- The aim of this work was to analyze:

i) Farmers' perception about strategies to face a situation of climate and market change and,

ii) the influence of farms and farmers' characteristics on those strategies

Methodology

- Data collection

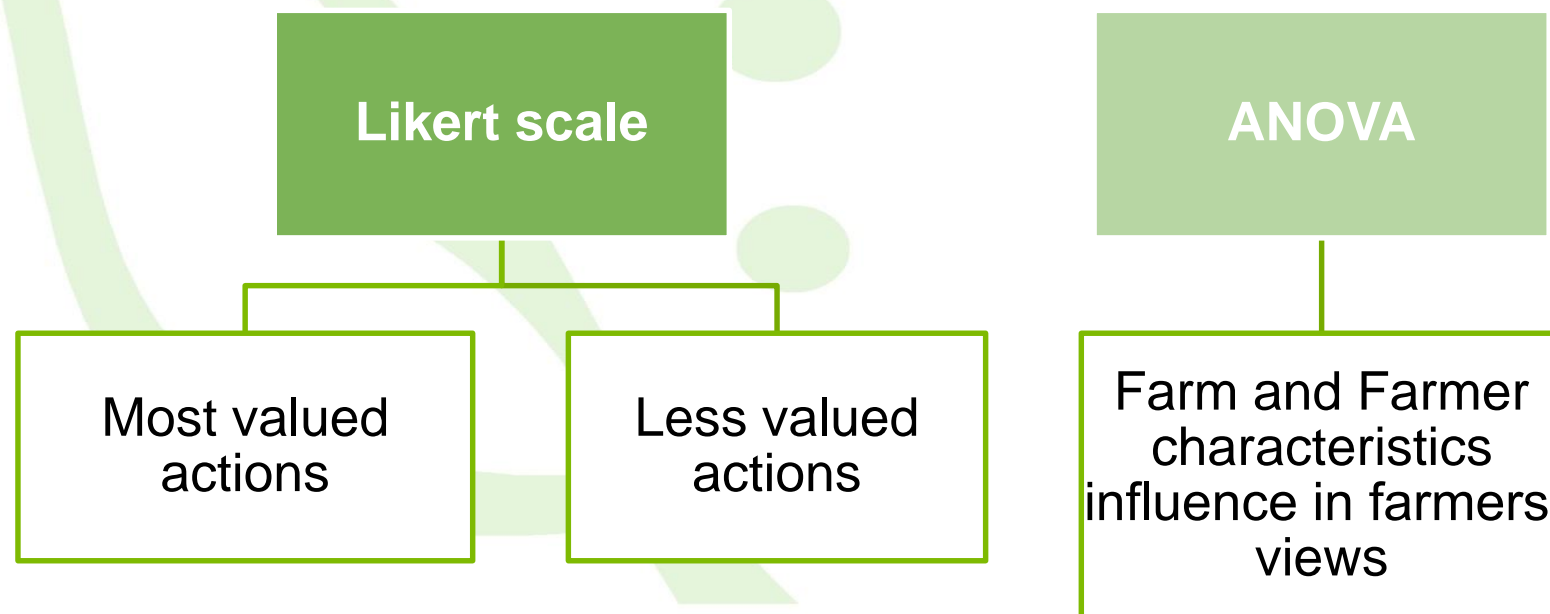
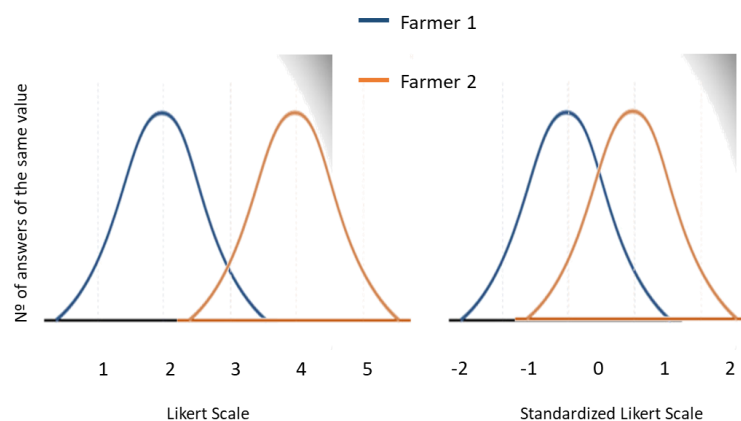


Methodology

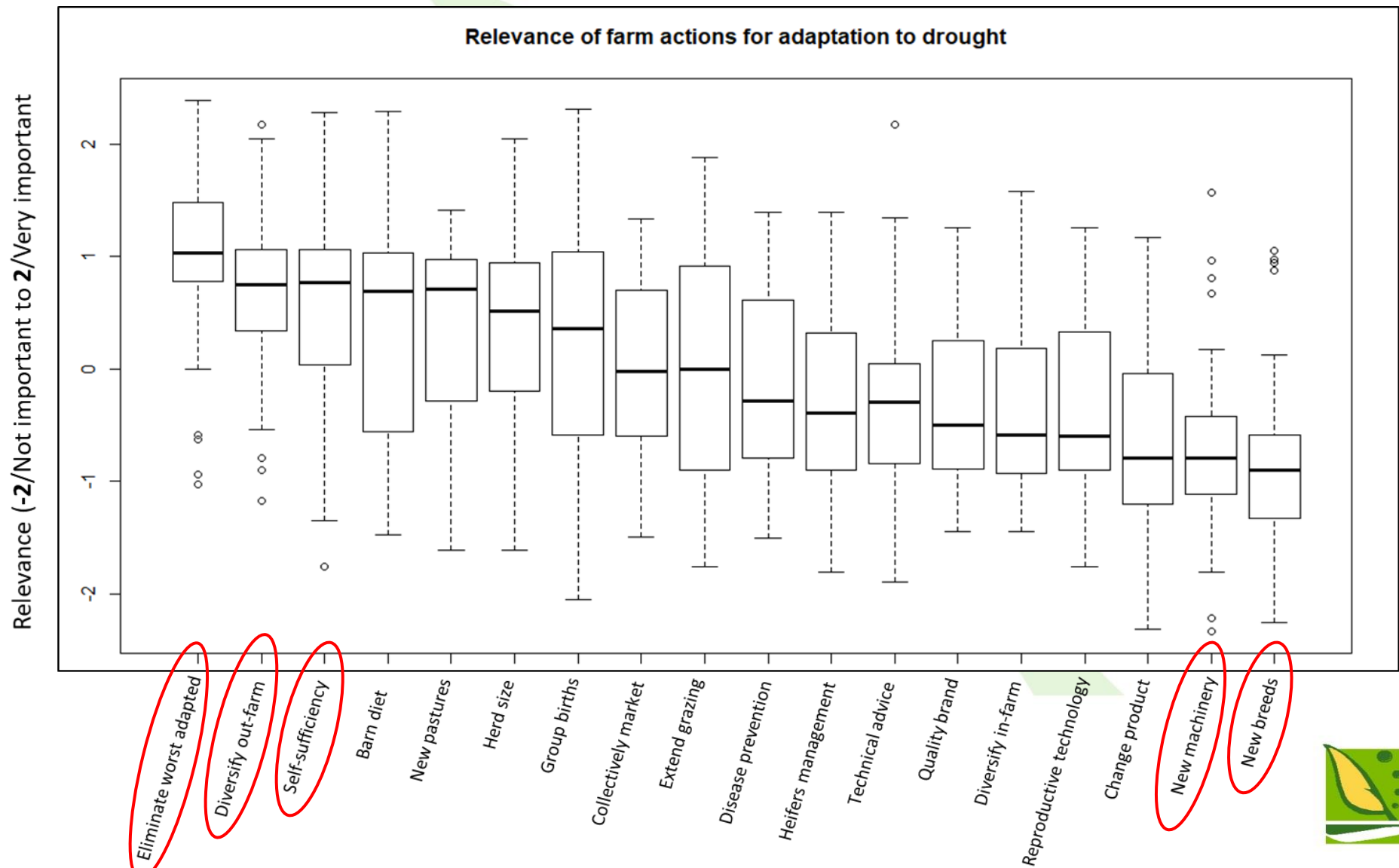
- Data processing and analysis

- Likert scale and ANOVA

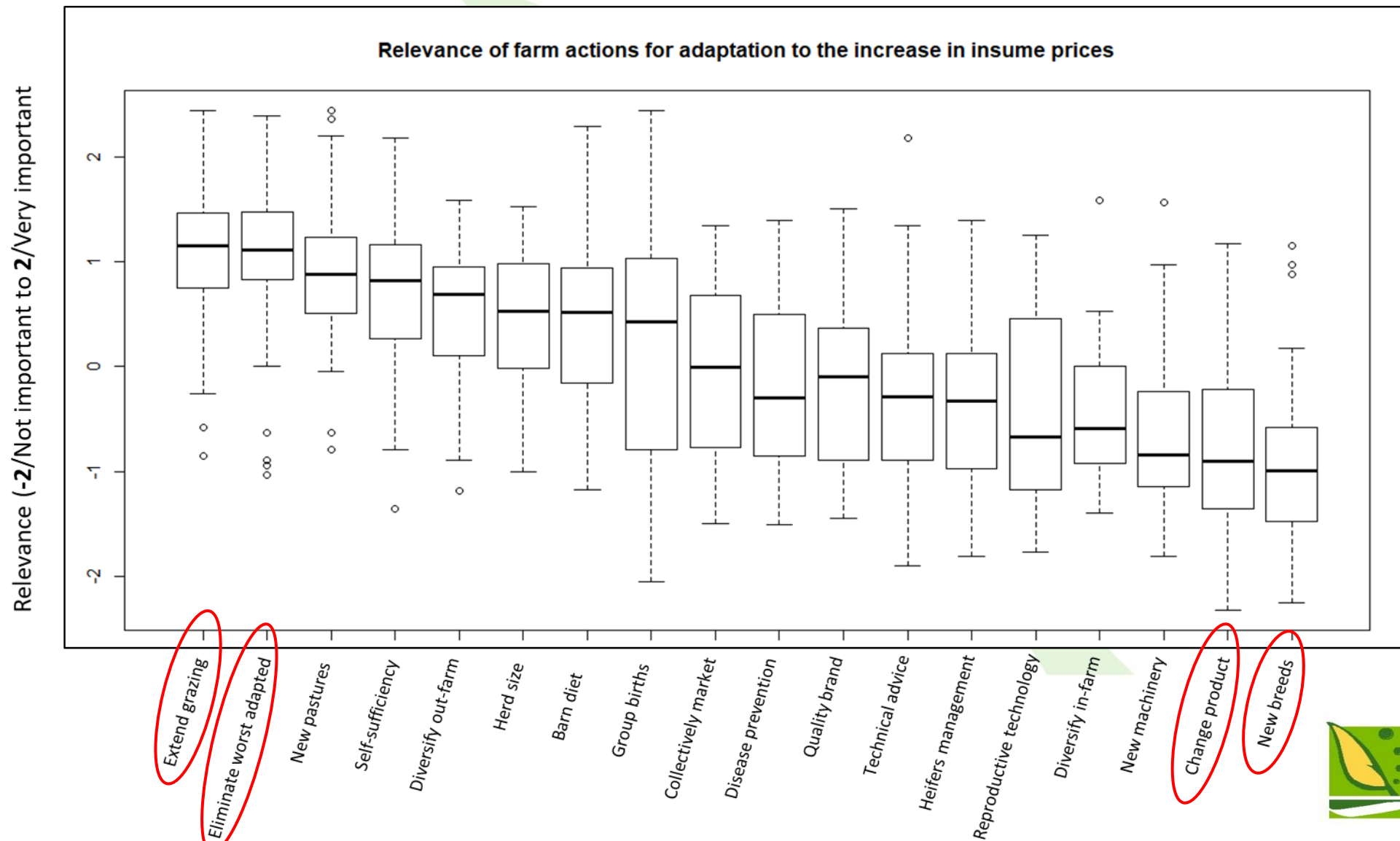
- Standardization




Results: Drought







Results: Inputs prices



Results: Farms and farmer characteristics

Scenario	Variable	a	b	ANOVA		Pair-Wise test
	Age	Young (<51)	Old (>51)	F	p	ab
Increase prices	New pastures	0.493	1.126 	5.621	0.0251 *	0.026

Scenario	Variable	a	b	ANOVA		Pair-Wise test
	Fattening	No	Yes	F	p	ab
Increase prices	New pastures	1.08 	0.389	6.482	0.0167 *	0.027
	New machinery	-0.844 	-0.248	4.607	0.04 *	0.057
Drought period	New machinery	-0.87 	-0.173	6.685	0.0135 *	0.018

Scenario	Variable	a	b	ANOVA		Pair-Wise test
	Land Area	Big (>77 ha)	Small (<77)	F	p	ab
Drought period	Barn diets	1.104 	0.166	8.211	0.00654 **	0.00024

Final remarks

1. Farmers considered eliminating worst adapted animals, diversifying activity out agriculture and seeking for new pastures and self-sufficiency as some key strategies for both, increase in inputs prices and a period of droughts scenarios.
2. In a 2-year-drought scenario farmers considered modifying barn diet as one relevant action, while this was not too relevant in an increase in inputs prices scenario.
3. Farm and farmers' characteristics such as farmer age, size of agricultural area and whether they fatten in farm or not were relevant to identify how farmers face these challenges.

Final remarks

4. Some of the most relevant actions that are usually pointed out when analyzing farming at a systemic level such as introducing more adapted breeds, diversifying farm activity, seeking for external advice or modernizing farm technologies, were considered by farmers as having low importance.
5. And as a final remark, note that this study focused on how farmers would adapt to short term scenarios, and that their strategies to adapt to mid or long-term perturbations might be different.



Thank you for your attention



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