BACKGROUND

- Dairy goat industry Flanders
- Losses during rearing due to respiratory disease, diarrhea, death
- Few scientific publications

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BACKGROUND

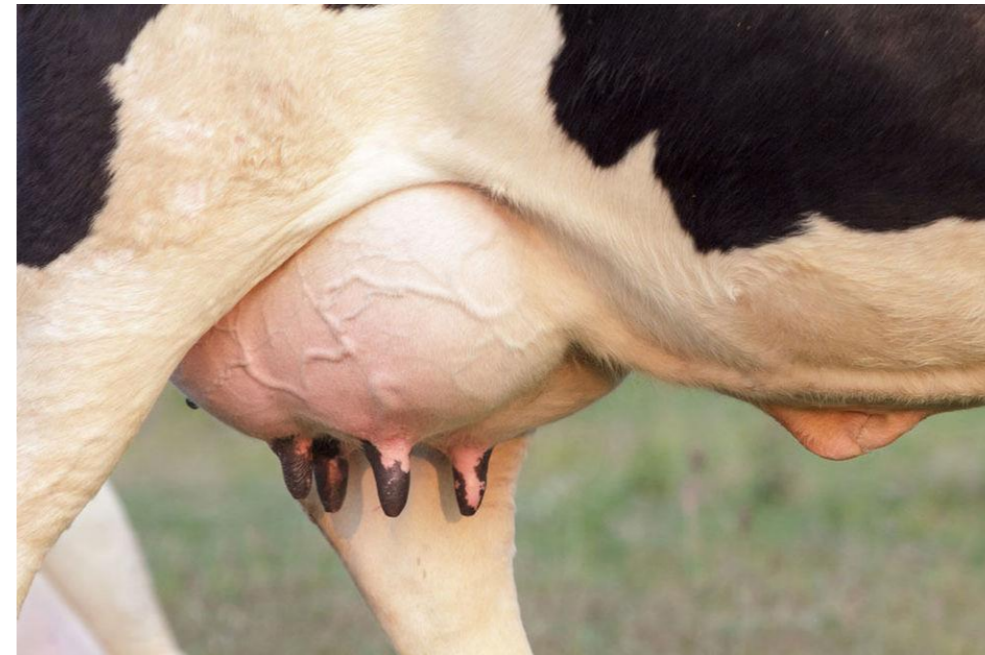- Dairy goat industry Flanders

- Losses during rearing due to respiratory disease, diarrhea, death

- Few scientific publications

- Colostrum management = goat kids' first protection

- Antibody source: goat – cow / fresh – pasteurized – lyophilised

- Limiting factors: Caprine Arthritis Encephalitis-virus and Paratuberculosis

AIM OF THE STUDY

Determine the **prevalence** of failure of passive transfer in **goat kids** in dairy herds in Flanders

Define the most useful **goat-side** test for **diagnosing** failure of passive transfer

MATERIAL AND METHODS: SAMPLING

- 14 dairy goat farms
- 15 kids
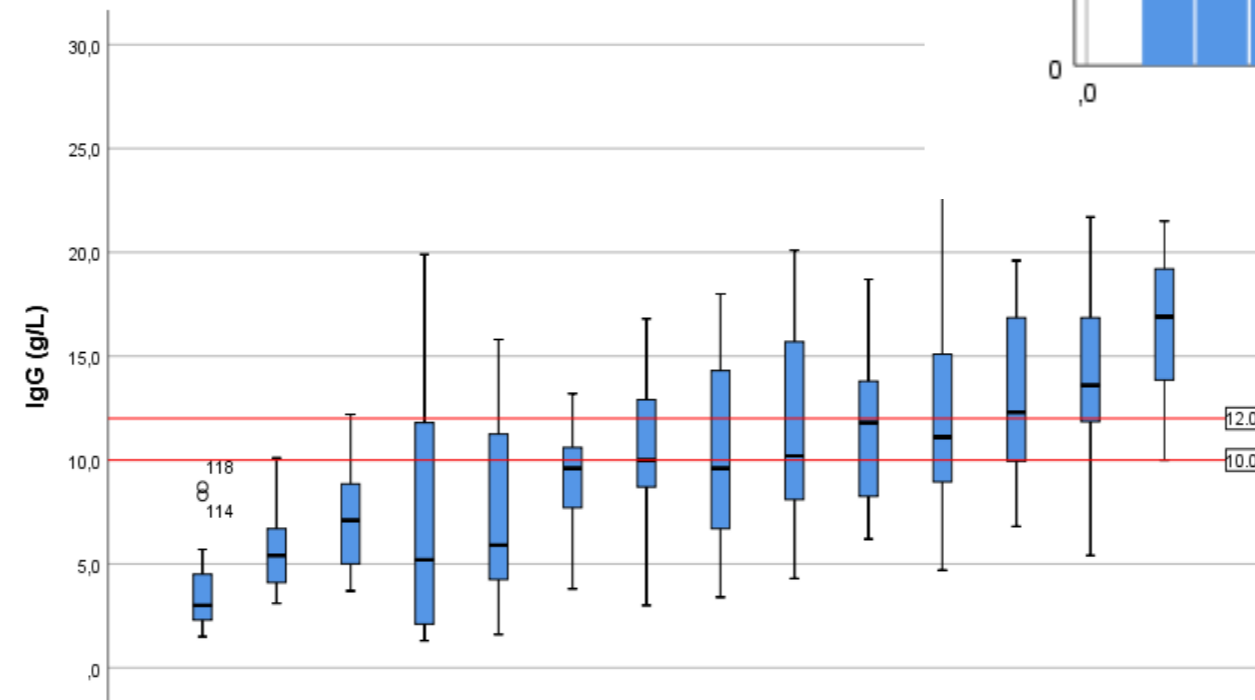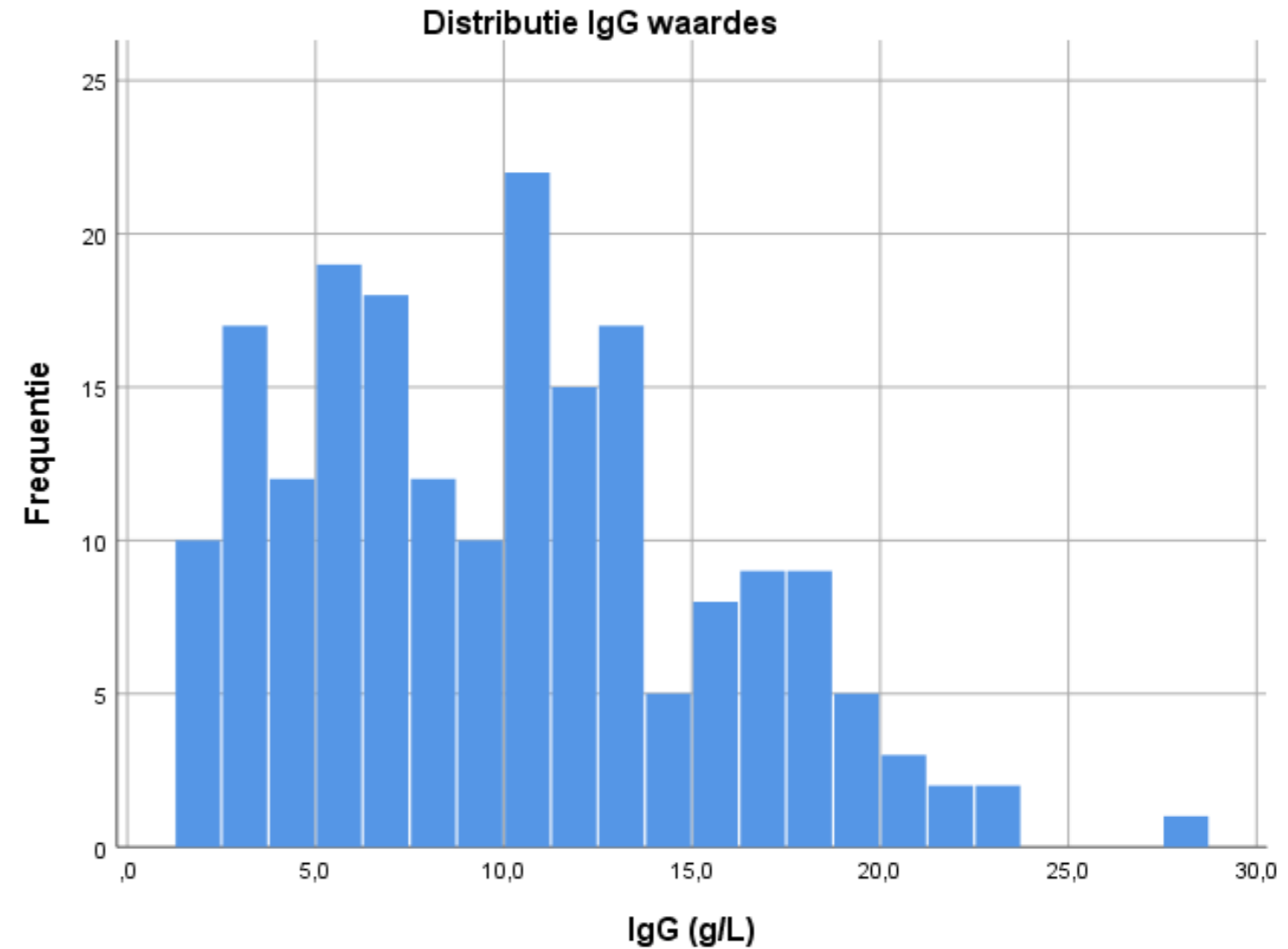- 2 – 7 days of age
- Serum
- 194 useful samples

Brix refractometer

Optical refractometer

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RESULTS: PREVALENCE FPT

Mean IgG-value

10,0 ± 5,4 g/L
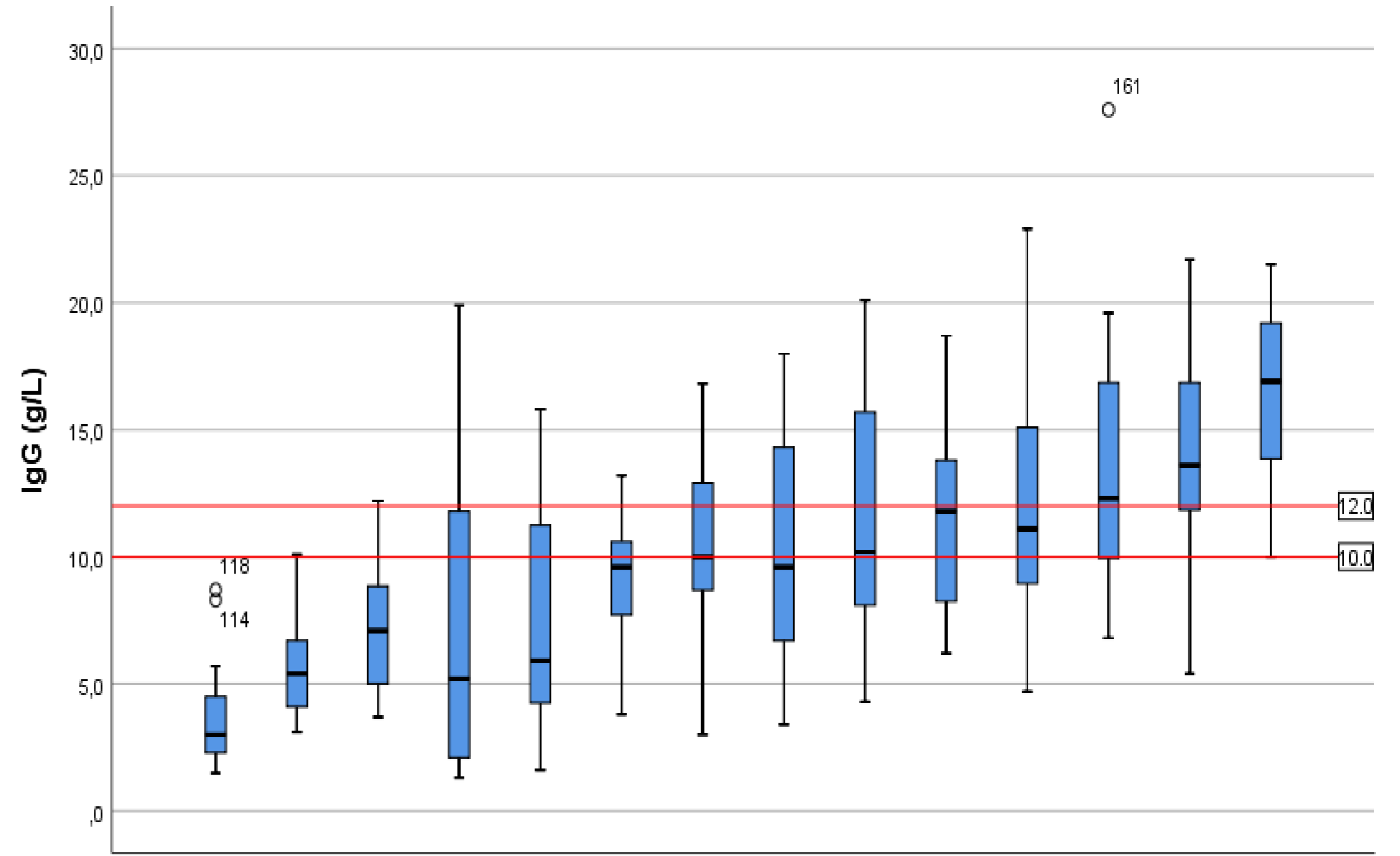
Cut-off 10 g/L IgG
50,4 ± 28,3% FPT

Cut-off 12 g/L IgG
66,4 ± 25,8% FPT

Distributie IgG waardes

RANGSCHIKKING BEDRIJVEN		1	2	3	4	5	6	7	8	9	10	11	12	13	14
% FPT	IgG <10 g/l	100	88,2	73,3	64,3	66,7	55,6	46,2	50,0	44,4	40,0	33,3	26,7	6,7	0,0
	IgG <12 g/l	100	100	93,3	78,6	73,3	77,8	69,2	57,1	66,7	60,0	53,3	46,7	26,7	13,3

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    50,4 ± 28,3% FPT

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RESULTS: TEST COMPARISON

- Reference test: capillary electrophoresis

- Goat-side tests: Brix-refractometry and optical refractometry (Serum Total Protein)

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RESULTS: TEST COMPARISON

- Correlations:
  - Electrophoresis – Brix: r=0,73   Electrophoresis – STP: r=0,76
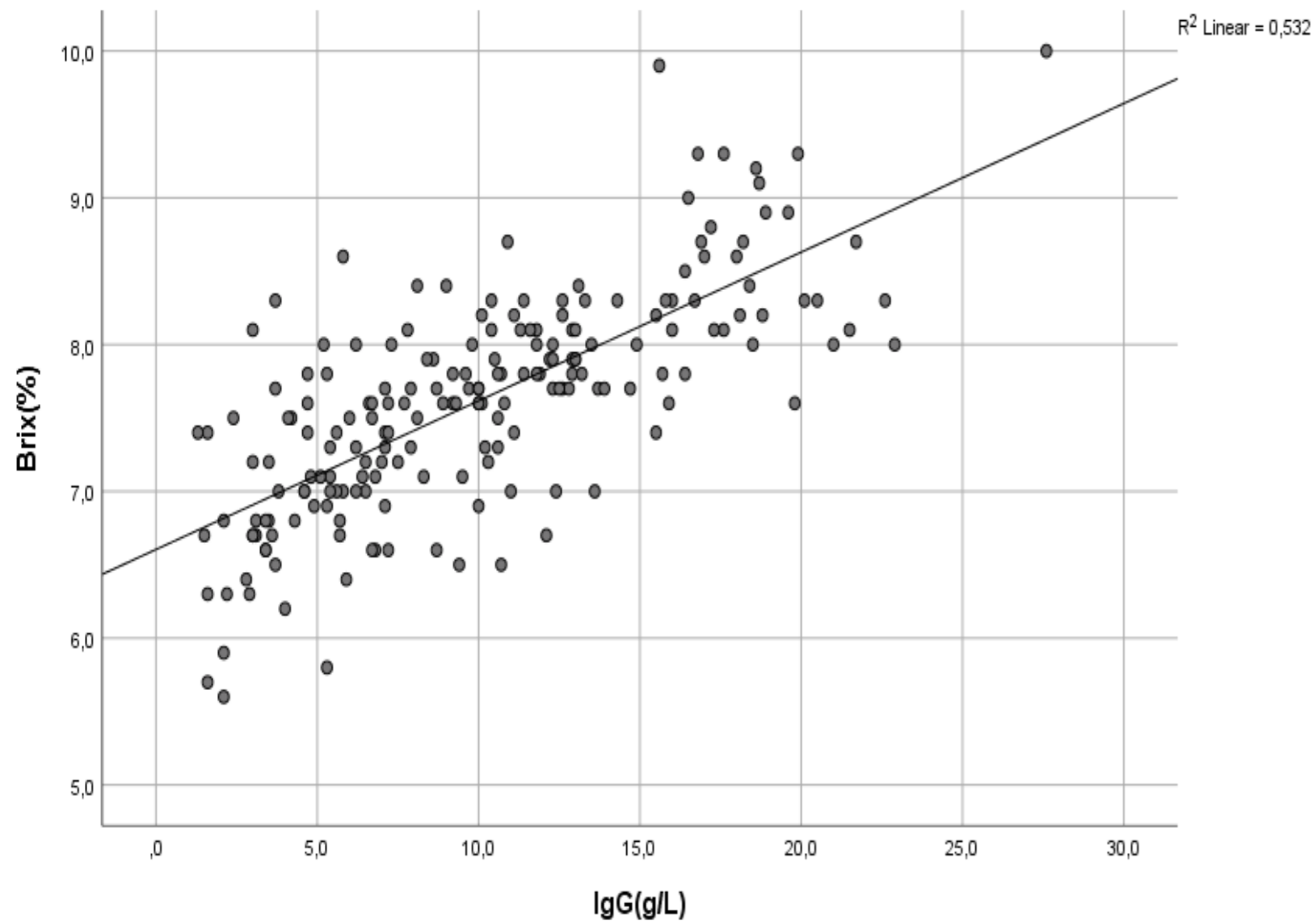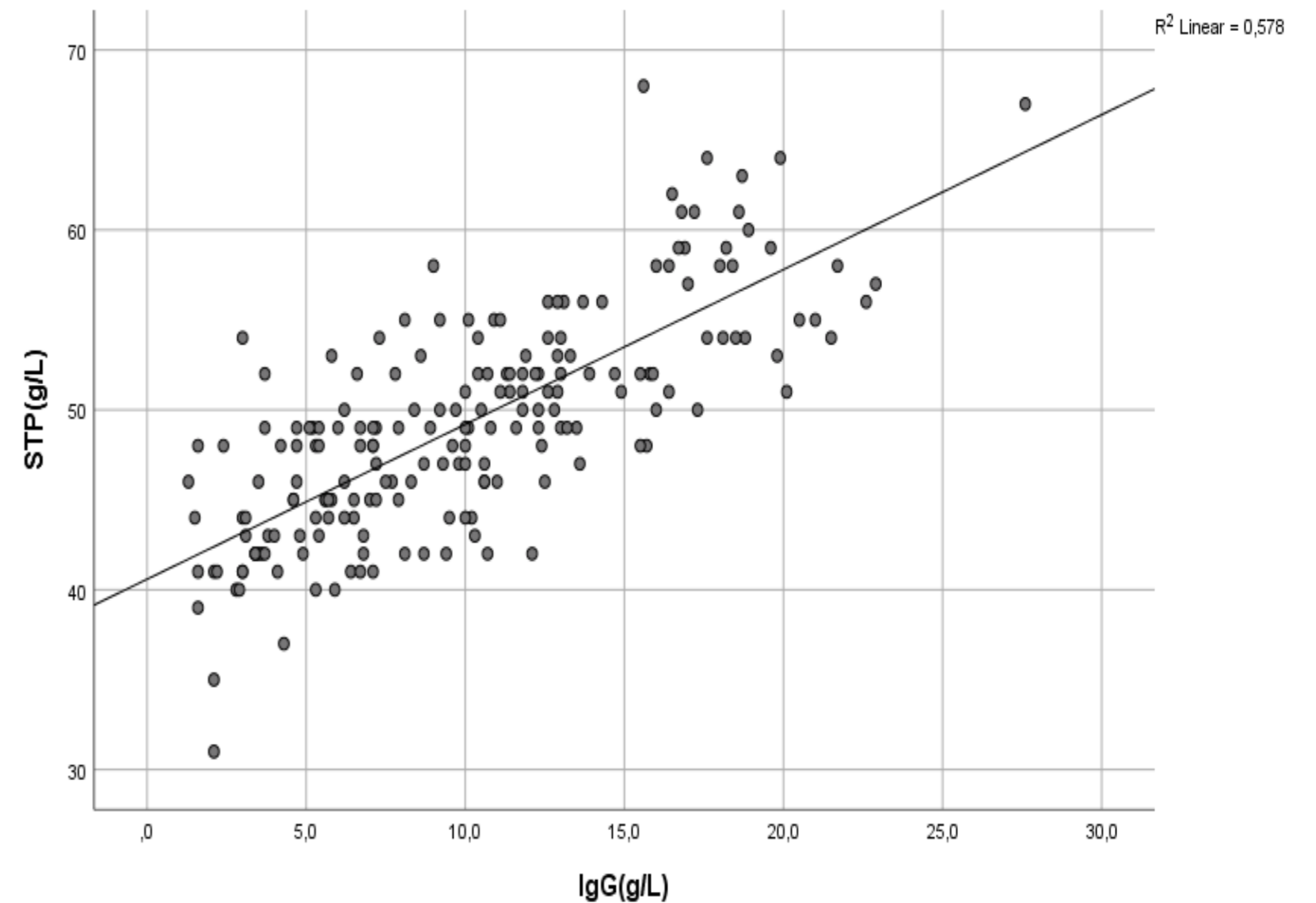
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- Goat-side tests: Brix-refractometry and optical refractometry (Serum Total Protein)

- Best test = highest negative predictive value (NPV)

- Brix: cut-off value 8,0%
  - NPV for 10 g/L: 84,6%
  - NPV for 12 g/L: 68,8%

- **STP: cut-off value 52 g/L**
  - **NPV for 10 g/L: 85,1%**
  - **NPV for 12 g/L: 70,1%**

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CONCLUSION

- Failure of passive transfer is a problem in Flemish dairy goat sector (>50% of kids on sampled herds)

- Brix and optical refractometry are reliable goat-side tests for diagnosing FPT

FUTURE RESEARCH

- Risk factors for FPT on individual kid level

- Field study with different types of colostrum

- Compare incidence of disease in kids with different
  IgG level => refine cut-off FPT

THANK YOU FOR YOUR ATTENTION

Veterinary practice
Verberckmoes

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