



Summer heat stress on boar sperm membranes and extender influences

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Aims

1. To evaluate the impact of continuously elevated ambient temperatures on boar sperm membranes during summer season
2. To examine the effect of two extenders on boar sperm membrane integrity during summer heat stress.

Conclusion

Continuously elevated ambient temperatures may impair boar sperm membrane integrity. This effect can be alleviated by extender media containing membrane-protective agents.

Material & Methods

May to July 2010:

1. 434 diluted samples from 22 AI stations

Shipping

Examination at 24 h:

Microscopy: Motility
Morphology

2. 15 ejaculates from 6 boars

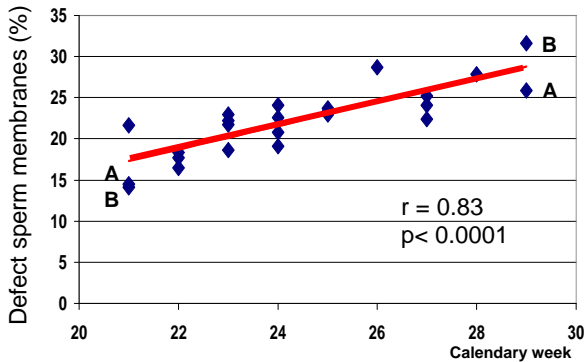
Dilution
BTS
Androstar Plus

Storage

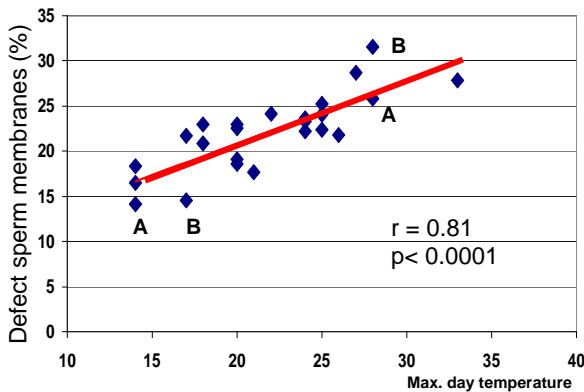
Flow cytometry (PI, FITC-PNA): Plasma membrane and acrosome integrity

Results

1. 434 diluted samples from 22 AI stations*

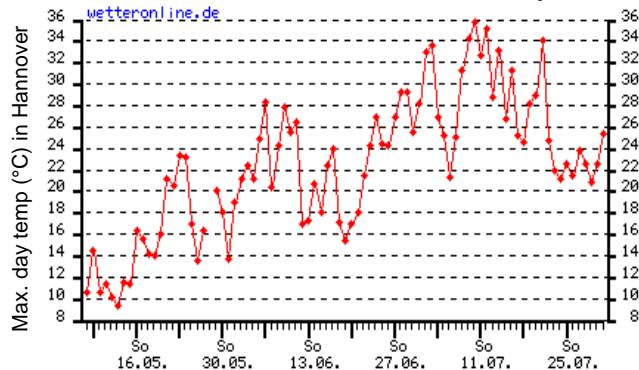


Membrane defects and week were positively correlated. Motility and morphology were not related to week. *Stations A and B were sampled twice.



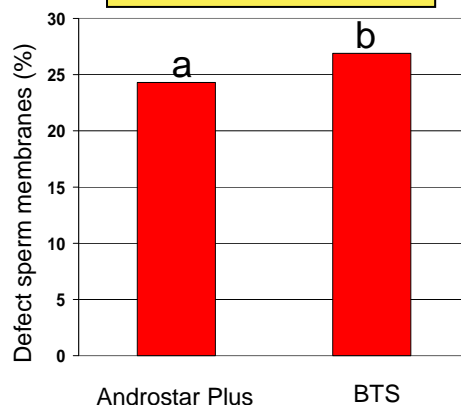
Membrane defects and temperature were positively correlated. Motility and morphology were not related to temperature. *Stations A and B were sampled twice.

Summer 2010 was extraordinary....



Temperature increased and remained elevated for weeks.

2. 15 ejaculates from 6 boars



Samples stored in Androstar Plus had less membrane defects sperm compared to samples diluted in BTS.