Thermo graphic research with horse on treadmill

Quicker condition build-up with help of the Q-line treadmill

Results of the thermo graphical comparison study proofs that horses, which are trained on a micro roller treadmill, have a much higher blood circulation in there back and tenderloins. Use of the Q-line treadmill results in activated digestion and quicker rehabilitation of your horse.

Thermo graphic comparison research

Surface temperatures during a training session on the Q-line roller treadmill.

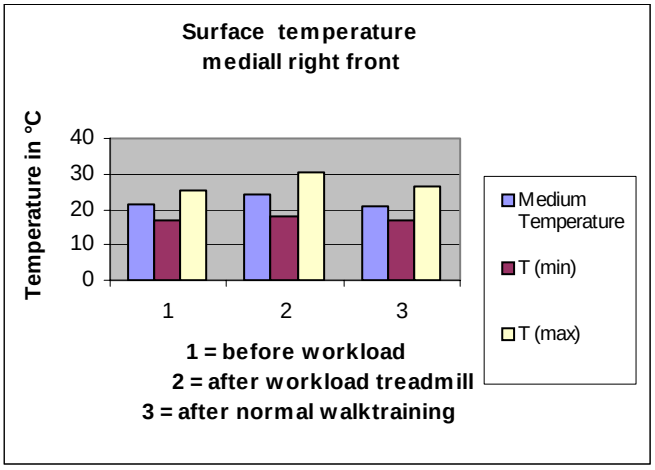
Method

In order to conduct the research, a thermographic camera 'Thermovision 470' by Firma Agema infrared system GmbH was used. The thermographic camera was preset as follows: set emission factor of 0,98, an object distance of 1 till 2 metre in an angle of 90 degrees at the horse's limbs. The ambient temperature and surface temperature were preset as well.

The right leg of the horse was studied lateral, dorsal and medial. In addition, the entire back of the horse was captured thermo graphical.
A total of three researches were conducted. The first research was conducted one day in advance of the workload. The second was conducted after a thirty minute treadmill training with a walking speed of 1,66 m/minute without angle. The third research was conducted 24 hours later, after a walk training on normal solid surface.
The results of the thermographic research were calculated with software especially designed for horses.

Conclusion

The aim of this research was to determine the effect of training on the treadmill regarding the blood circulation in relation to the surface temperature of the horse's legs and back.
The increase of the blood circulation in relation to training on the treadmill is confirmed by the thermographic figures before and after training. Blood circulation is proven to be increased by training the horse on a treadmill.



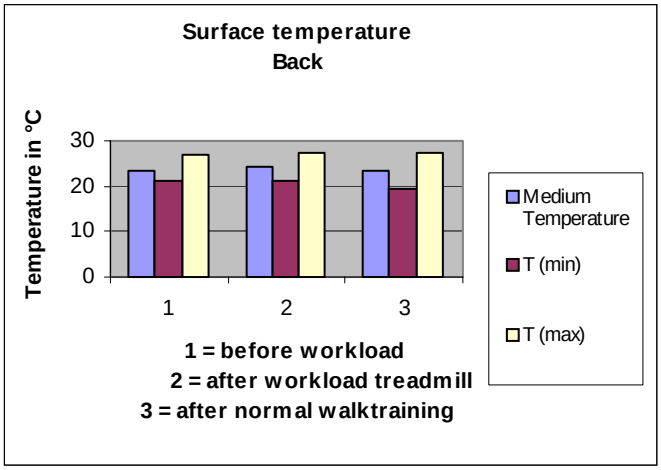
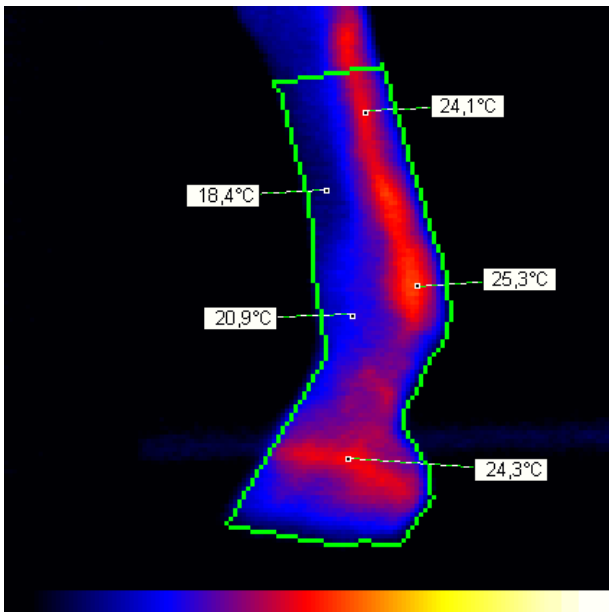


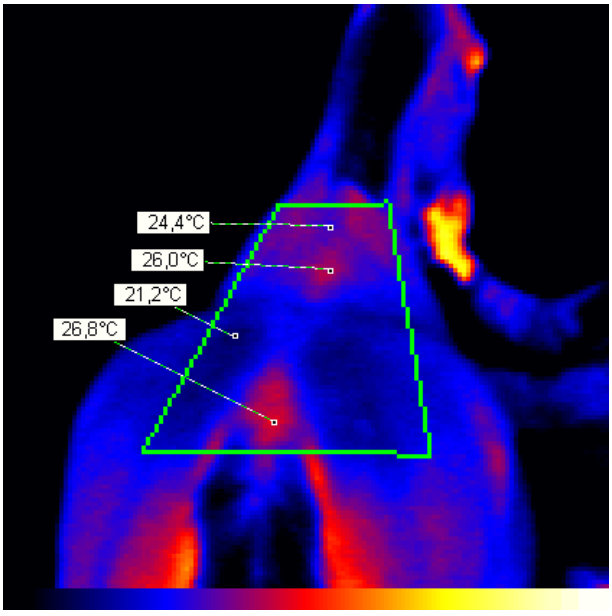
Image 1; Horse before workload

Medial right front

Image 2; Horse before workload

Back

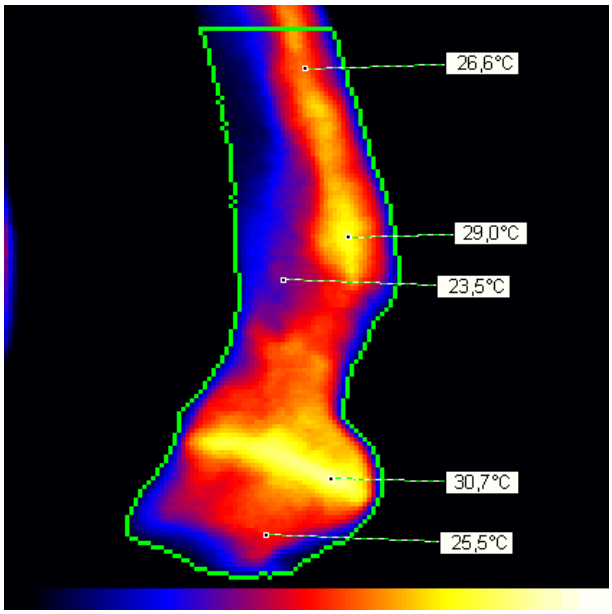




TEMPERATURE-TESTINGFIELD
Medium Temperature : 21,2 °C
T(min) in maximum range : 18,4 °C
T(max) in maximum range: 25,3 °C

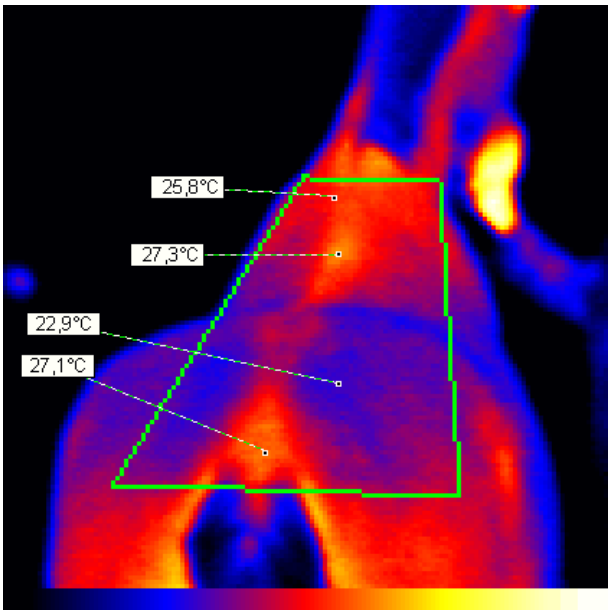
TEMPERATURE-TESTINGFIELD
Medium Temperature : 23,5 °C
T(min) in maximum range: 21,2 °C
T(max) in maximum range: 26,8 °C

Image 3; After 30 minute treadmill training
Medial right front



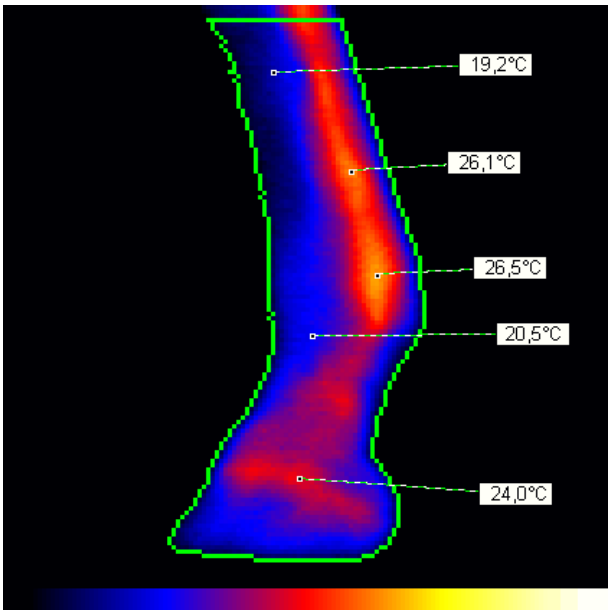
TEMPERATURE-TESTINGFIELD
Medium Temperature : 24,2 °C
T(min) in maximum range: 18,1 °C
T(max) in maximum range: 30,7 °C

Image 4; After 30 minute treadmill training
Back



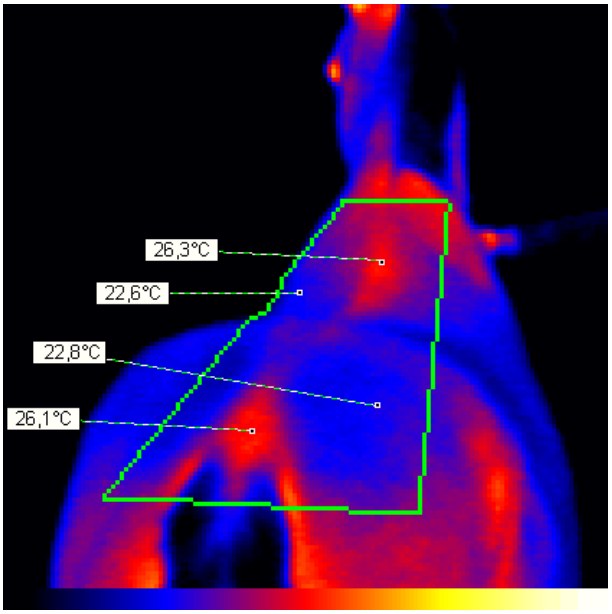
TEMPERATURE-TESTINGFIELD
Medium Temperature : 24,2 °C
T(min) in maximum range: 21,2 °C
T(max) in maximum range: 27,5 °C

Image 5; After 30 minute walk training on solid surface
Medial right front



TEMPERATURE-TESTINGFIELD
Medium Temperature : 21,1 °C
T(min) in maximum range: 19,2 °C
T(max) in maximum range: 26,5 °C

Image 6; After 30 minute walk training on solid surface
Back



TEMPERATURE-TESTINGFIELD
Medium Temperature : 23,6 °C
T(min) in maximum range: 22,8 °C
T(max) in maximum range: 26,3 °C