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TERMIC STRESS ON OPEN-AIR WORKERS (I)

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Objective: To analyse the termic stress on workers who develop the majority of theirs tasks on the open air.

Methods: An observational and prospective survey was set out in which activities developed in work places by means of random observations and inquiries to the workers were performed as well a comparison of metabolic consumption for each work place and WBGT index according to Yaglou and Minard. A sample of 128 workers belonging to 24 work settings exposed to sunshine in some degree was taken.

Results: The comparisons between calculated metabolic consumption and WBGT indexes indicated in Celsius degree and adjusted with table number 1 of Prevention Technical Data (INSHT) show that out of the 24 work settings analysed, 5 had a slight termic discomfort, 6 had a moderate termic discomfort and six more were located in the area of termic stress.

Conclusions: The moisture and the heavily sunshine radiation in the area of Tarragona (Spain), lead to high WBGT scores even though the outdoor temperature measured with mercury thermometers is not extreme, so the likelihood of possible termic discomfort is expected to increase several months more than expected. For instance, on September the 22nd the dry temperature was 23ºC with a WBGT index of 27.8ºC, indicating the need to be aware of possible situations of termic stress.