Tips for successful NTT

• The animal should be calm but attentive; the test environment is a vital part of achieving this.

• Ideally the animal should be on its own in a cage, kennel or stall, with good all round vision. For small animals, mirrors placed in the back of cage against a wall aid reading the display if it is on the far side of the animal

• A nearby companion is advisable for animals normally group housed

•The environment should have a low but constant noise level (a radio in the background helps) and with the minimum number of people present. Opening and closing of doors, vehicles driving past, mobile phones ringing etc are all distractions to be avoided, both beforehand as they excite the animal and especially during a test as the reaction to the distraction will mask the response to the stimulus.

• Don't stop talking: as you apply the stimulus, some animals will recognise the sudden silence as testers concentrate on watching. That radio or music in the background helps.

• For manual application of the stimulus, e.g. using the hand held ProdPlus, the procedure should be as "non scary" as possible, important for a behavioural response

• Knowledge of kennel/cage cleaning routine and feeding times for group housed animals helps when planning the study. Always allow time for acclimation before taking baselines.

• If possible, have the same assessor make all the measurements within a study. Each animal will respond in a particular way and the assessor will learn this (and hopefully write it down).

• There is usually more than one element to a response: an animal may stiffen slightly and appear pre-occupied for a short time before turning to look at the probe. It doesn't matter which is taken as the response, but it must be consistent. Horses for instance will often show a skin flick on the thorax before movement.

• The first goal is to achieve a stable baseline thermal threshold for each animal. This is done by repeated measurements at 10 minute intervals until the spread of the last 3 readings is no more than 10%. Thereafter, during a study, a minimum of three similar baselines before administration of the study treatment is sufficient.

• Initially, some animals will require more than 3 baselines to achieve this repeatability because it takes them time to learn what the stimulus feels like and to "decide" how to respond to it.

• Be sure to record what the response was (rather than just the threshold temperature) and to include, on the record sheet, a "comments" box. This is useful when the operator is not sure whether a response was valid, due to distraction, outside influences or just confusion. A more informed decision can then be made when reviewing the data as to whether to include a data point.