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To assess the effects of artificial shelter on the responses of young red deer (*Cervus elaphus*) to disturbance, eight groups of five mixed sex deer were tested with an acoustic and visual stimulus and observed by both a human observer and a video camera. The reactions to these two disturbances were examined both in the presence and absence of shelter. The shelter consisted of a wall of shadecloth, located in one half of the paddock. The provision of shelter did not affect how often or how long deer performed any of the recorded activities (e.g. the amount of aggressive behaviour seen, time spent grazing and the alert behaviour of the deer in response to a disturbance). The animals' position in the paddock was also unaffected by the presence of shelter during disturbances. However, a difference was seen in the deer's response to the two types of disturbance. Deer were more alert during presentation of a visual stimulus and higher levels of aggression and fencewalking were recorded afterwards. In contrast, acoustic stimuli resulted in more aggression while the stimulus was played and the deer remained more alert after the stimulus. In conclusion it appears that shelter does not affect the response of farmed red deer to disturbance, however the deer appear to respond differently to stimuli that are acoustic than those which are visual.