

Column E Explanation_

This form is intended as an aid to complete the Column E explanation. It is not an official form and its use is voluntary. Annual Reports and explanations should NOT include PII information such as names (principle investigators and research staff), addresses, protocols, meeting notes (either in part or in full), the animals room numbers, grant information, veterinary care programs, and the like. A Column E explanation must be written so as to be understood by lay person as well as scientists.

1. Registration Number: 74-G-0002
2. Number 63 of animals used in this study.
3. Species (common name) cattle of animals used in this study.
4. Explain the procedure producing pain and/or distress. Explanations should include a brief description of the procedure, but also explain what the animal's experience, examples of which may include, but are not limited to: Neurological signs, seizures, tremors, paralysis, lethargy, inappetence, respiratory signs, GI distress, vomiting, and diarrhea.

Young healthy cattle are used to feed ticks and/or to produce waste that is needed to propagate flies and other insects needed for our research activities. To minimize grooming behaviors that could disrupt feeding ticks and/or to facilitate collection of animal waste that is free of contamination, the cattle are stanchioned in covered barns for extended intervals that can last up to several weeks. The stanchion limits backward movement of the animal's head, but does not interfere with the animal's ability to rise, lie down, or otherwise move freely within the stanchion sides. Every animal undergoes an acclimation process prior to being held in the stanchion for an extended period of time. Stanchioned animals also have full visual and auditory contact with other cattle at all times and receive positive forms of enrichment (e.g., handbrushing, food treats, soothing music, hydrotherapy, etc.) to minimize added stress that can occur during confinement.

5. Attach or include with the reason(s) for why anesthetics, analgesics and tranquilizers could not be used. (For federally mandated testing, see Item 6 below).

In our experience, most cattle do not need supplemental analgesics or anesthetics while stanchioned, and these agents may complicate or confound efforts to raise insects and/or the efficacy of test articles that are being evaluated for insect control. Most cattle adapt quickly to stanchioning and rarely develop stress as a result of the daily enrichment protocols that are routinely followed. These measures include companion stanchioning (animals are never housed in isolation), soothing music in the barns, daily hand-brushing, hand feeding of special treats, and joint hydrotherapy.

6. What, if any, federal regulation require this procedure? Cite the agency, the code of Federal Regulations (CFR) title number and the specific section number (e.g. APHIS, 9 CFR 113.102):

Agency NA CFR NA

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