



POSITION STATEMENT

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Statement on Controlled Atmosphere Stunning of Poultry

(Original statement approved by AAAP Board, July 2007)

A significant amount of discussion and research has been generated regarding the humane stunning of poultry in the United States. To this end, The American Association of Avian Pathologists (AAAP) and the American College of Poultry Veterinarians (ACPV) have generated a position statement which reflects the current understanding and application of the technologies that are in existence today. Specifically, the two technologies used in commercial poultry slaughter facilities include the electrical stunning method and the controlled atmosphere stunning (CAS) method.

Direct comparisons of low voltage electrical stunning systems in the U.S. to European electrical stunning systems are inappropriate as the two are quite different. In the U.S., electrical stunning systems utilize low voltage to produce electro-anesthesia while the European electrical stunning systems apply high voltage electrical stunning to electrocute the birds, or “stun to kill.” For that reason, Europe is more inclined to use CAS systems to avoid the tissue damage associated with electrocution.

Physiologic evaluation has failed to demonstrate any welfare advantage of any CAS system over other accepted poultry electrical stunning methods in the United States. Specifically, pulsed DC or AC low voltage stunning (the current U.S. industry standards) allows plants to achieve instant electro-anesthesia at rates exceeding 99.95 percent efficiency when properly applied, as denoted by EEG monitoring and physical examination.

Controlled atmosphere stunning includes several variations of gaseous mixtures given to induce an anesthetic state. One method of CAS involves exposure of poultry to a mixture of inert gases, principally nitrogen and argon, to produce anoxic loss of consciousness. Another approach is to subject birds to an atmosphere enriched with successively higher concentrations of carbon dioxide which results in a two-stage progressive hypercapnic-hypoxic anesthesia. The alternative CAS systems, while viable, do not offer any known animal welfare advantages and *may* in fact be associated with poultry excitation and injury prior to loss of consciousness. However, in the case of extremely large poultry, the CAS systems can offer some human ergonomic advantages for processing plant employees.

Based on current research, it is the current position of AAAP and ACPV that pulsed DC or AC low voltage stunning and controlled atmosphere stunning (CAS) are *all* viable and acceptable systems for humane stunning of poultry. We recommend continued research on stunning physiology and the refinement of humane stunning applications in poultry processing.

A list of key publications regarding these topics may be obtained through AAAP at www.aaap.info.