Annual U.S. Equine Mortality
Processed vs. Death/Euthanasia

- Horses processed for meat — ± 112,000 (1.24%)
- Died/euthanized (30 days of age or older) — ± 167,000 (1.8%)*
- Total Mortality — ± 270,000 horses (3%±)**
- %’s similar to 1998 report

*USDA & NAHMS 2005 Report
**AHC estimates 2005 U.S. Horse population-9 million
Euthanasia

- Criteria: Based on Medical Assessment
  - Condition presents a hopeless prognosis
  - Horse’s condition causes unnecessary pain & suffering
  - Horse is a hazard to itself or its handlers
  - Horse requires continuous medication for relief of pain for the remainder of it’s life

- No longer meets owner’s needs
- Owner can no longer afford
Euthanasia Guidelines

Acceptable methods*
- Barbiturate Overdose

Acceptable With Conditions*
- Penetrating Captive Bolt
- Gunshot

*2013 AVMA Euthanasia guidelines – led by a 13-member panel with more than 60 experts including veterinarians, animal scientists, behaviorists, physiologists, psychologists and an ethicist. 2/27/2013
Adjunct method:
- KCL in horse in surgical plane of anesthesia

Unacceptable Methods:
- Chloral hydrate
- Succinylcholine without anesthesia
- Solvents, cleaning solutions, caffeine, strychnine

* 2013 AVMA Euthanasia guidelines – led by a 13-member panel with more than 60 experts including veterinarians, animal scientists, behaviorists, physiologists, psychologists and an ethicist. 2/27/2013
Barbiturate Overdose

❖ Advantages:
  • Speed of action
  • Minimal discomfort to the horse

❖ Disadvantages:
  • Drug is a DEA controlled substance
  • Must be administered intravenously
  • Must be administered rapidly & in sufficient quantity
  • Terminal gasping, vocalization & muscular activity
  • Carcass is an environmental hazard
Barbiturate Overdose

- **Sequence of events***
  - Injection time – 17 seconds
  - Collapse - 26 seconds
  - Absence of auscultable heartbeat – 84 seconds
  - Lack of corneal reflex – 161 seconds
  - Flat EKG – 653 seconds

- **To facilitate the process:**
  - Pre-place an IV catheter
  - Administer rapidly & in sufficient quantity
  - Pre-medicate with sedatives?

*Emergency Euthanasia of Horses, Hullinger, Stull, 2013*
Gunshot

- **Advantages**
  - Immediate unconsciousness and brain death
  - Does not require restraint
  - Carcass is environmentally friendly

- **Disadvantages**
  - Requires skill and experience
  - Risk of ricochet
  - May be aesthetically displeasing to observers
Gunshot

- Requires .22-long rifle solid point, 9 mm or .38-.45 caliber pistol

- Point of impact is ½ in. above the intersection of diagonal lines from the base of the ear to the corner of the opposite eye.
Penetrating Captive Bolt

- **Advantages:**
  - Immediate unconsciousness & brain death
  - Carcass not an environmental hazard

- **Disadvantages:**
  - Requires skill
  - Horse must be restrained
  - May be displeasing to observers
Colorado DVM Equine Euthanasia Survey, 2009

- 128 Respondents
- 62% Urban or Suburban
- Method of Euthanasia
  - 95% Barbiturate Overdose
  - 5% gunshot
- Carcass Disposal
  - 76% burial or land fill
- 32% of all respondents willing to euthanize a horse for owner’s convenience
- 42% of Equine DVM respondents willing to euthanize a horse for owner’s convenience
- 83% very informed on the unwanted horse issue
Questions/ Comments
Questions/ Comments??
Questions???