Testimony of Nancy Perry, Senior Vice President of Government Relations
American Society for the Prevention of Cruelty to Animals

Subcommittee on Health of the Committee on Energy & Commerce
Hearing on "Improving Safety and Transparency in America's Food and Drugs"
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Good morning and thank you Chairwoman Eshoo, Ranking Member Burgess, and distinguished Members of the subcommittee for inviting me to provide testimony regarding an issue critical to equine welfare and public health. I would first like to recognize the leadership of Representatives Schakowsky and Buchanan as the sponsors of the SAFE Act and to thank the 224 House cosponsors, including many on this committee. My name is Nancy Perry and I am the Senior Vice President of Government Relations for the American Society for the Prevention of Cruelty to Animals. Founded in 1866, the ASPCA was the very first animal welfare organization on the continent and has long served as a leading voice for animal welfare in the United States.

The ASPCA's history and mission are intricately tied to equine protection. Our founder was inspired to pioneer the organization after witnessing the cruelties horses endured during a time in our history when they were the primary form of transportation. In fact, the ASPCA provided medical care for these animals, inventing the first equine ambulance and operating table to care for injured equines. Then and today, our goal has been simply stated yet highly ambitious – that all equines have good welfare. To achieve this in the modern context, we have been amplifying our commitment to equine protection by establishing a new Equine Welfare department and developing a robust program that has already revolutionized the partnerships between welfare organizations and equine industry groups. We are providing directly or through grants a multitude of critical services for equines, including safety net programs that offer support to owners who have horses in need of veterinary or other care including humane euthanasia, rehoming, retraining, adoption resources for horses in transition, and open-shelter services in local communities, including rural areas, that greatly expand services for at-risk horses. We tenaciously advocate for legal protections from neglect, abuse, and cruelty.

I am here today to express our strong support for the Safeguard American Food Exports (SAFE) Act (H.R. 961), a critical missing link in the existing systems vital for protecting American equines. Our goal of good welfare for equines cannot be met while our nation's horses are slaughtered for human consumption. Every horse, no matter how beloved, is one sale, one change of hands, one theft away from falling victim to this system. Current law allows kill buyers to attend regular auctions and bid against horse owners and rescuers to obtain race and show horses, backyard ponies, work horses, and other horses that enrich the lives of their human counterparts, then ship them over our borders for slaughter. This predatory practice jeopardizes the welfare of horses and unavoidably raises serious food safety concerns. This legislation is of the highest priority for our organization because of the extreme cruelty inherent in the commercial slaughter of horses, the hardship and interference that the practice places on equine rescues and rehoming work across the country, the negative externalities created for horse owners and the equine industry, and, most relevant to this hearing today, the significant risk that tainted and toxic horsemeat poses to the food supply and consumer confidence.

I. Legislative and Policy History on Horse Slaughter Prohibitions

Due to a groundswell of public support and bipartisan Congressional action, horse slaughter already is effectively banned within the United States. Since 2007, a provision in annual federal Appropriations bills has prevented the foreign-driven horse slaughter industry from operating in our country. Congress first enacted this provision by wide, bipartisan margins in both the U.S. House and U.S. Senate in 2005, and it has been included almost every year since. Inclusion of this provision, which prohibits USDA funding for horse slaughter inspections, legally necessary for the sale of horsemeat, has become routine. Most recently, for Fiscal Year 2020, it was included in the base U.S. House and U.S. Senate Agriculture Appropriations bills and in the President's budget request. Though consensus has been overwhelming around this issue, relying on appropriations cycles to maintain the policy is unsustainable and vulnerable to shifting political winds.

Unfortunately, the current restriction has not prevented the continued export of equines for slaughter to other countries – a practice that existed even when foreign-owned plants were operating in the United States. Each year thousands of American horses, donkeys, and mules are slaughtered in Canada and Mexico for human consumption. Government statistics show a positive downward trend in the annual number of equines exported for slaughter, dropping from more than 100,000 just a few years ago to approximately 60,000 in 2019.[1] The SAFE Act would ban the commercial slaughter of equines in the U.S. and their export for that purpose abroad, effectively closing the loophole that has existed since 2007.

For the American public, this policy reform is long overdue. A 2012 Lake Research Partners poll found that 80% of Americans opposed this practice.[2] In some states, such as Ohio, this figure was as high as 94%. Their opposition cuts across all socioeconomic factors and party lines. In each region examined – West, South, Northeast, and Midwest – acceptance of horse slaughter never exceeded 17%. The states of Texas, California, Mississippi, New Jersey, Arizona, Illinois, and New Mexico have already banned horse slaughter or the sale of horsemeat or horse parts for human consumption. New Mexico and Mississippi both consider horsemeat adulterated due to the ubiquitous presence of toxic substances associated with it. Unfortunately, state-level bans are difficult to enforce and do not protect horses taken across states lines and sold into the slaughter pipeline. Until the SAFE Act is law, equines will continue to be exported for slaughter, subverting the will of Congress and the American public. Each year that goes by without enactment of this law perpetuates unnecessary cruelty to animals that we hold dear and further jeopardizes human health. It is time to pass this bill and to permanently protect our nation's equines.

II. The Public Health Risk of Eating American Horses

Public antipathy toward the commercial slaughter of our nation's equines underscores how we define and value these animals – as work partners, athletes, and trusted friends – not as food. This is significant not only as a cultural norm, but to illustrate how that perception and categorization translate into the regulatory framework under which our equines are governed.

a. Regulatory Mismatch

Horses are not raised for their meat in the U.S. They live in backyards and on racetracks, in show barns and on ranches, but none live in a setting where their caretakers expect them to eventually become food.

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[1] Statistics Canada "Imports By Province from the USA, by State" reports - annual subscription service - https://www.statcan.gc.ca/eng/start; USDA "US to Mexico Weekly Livestock Export Summary" reports - https://www.ams.usda.gov/mnreports/al_ls635.txt)

[2] Lake Research Partners. 2012. *Memo: Research Findings on Horse Slaughter for Human Consumption*.

Therefore, these horses are regularly given a wide variety of drugs, medications, and treatments that are approved for use on equines and are necessary for the welfare of the animal. These drugs and chemicals are administered routinely, sometimes daily, and there is no system or reason to track how often or what type of treatments equines are given. Further, horses change hands an average of eight times throughout their lives, and it is extremely common for owners, along with veterinarians and trainers, to administer medications routinely.[3]

Many of the substances given to horses as part of daily care are expressly banned by the U.S. Food and Drug Administration (FDA) for use on animals meant for human consumption. The products found in every barn or on every ranch include fly sprays, dewormers, medicines, and pain relievers. It is commonplace for horse owners to administer pain relief and other medicines. The *Merck Veterinary Manual* indicates that "… administering medication to a horse is not difficult if you use common sense and follow good handling principles for keeping both you and your horse safe."[4] It goes on to confirm that horse owners can routinely provide injectable medicines to their horses. "Some medications can be administered only by injection, which is usually given in the neck area or thigh. Ask your veterinarian for a demonstration and guidance to make sure you know how to give the injection properly." The most common pain relief drugs are phenylbutazone (known as 'bute') and Banamine. "'Non-steroidal anti-inflammatory drugs (NSAIDs) have been the mainstay of equine analgesia for many years,' Dr. Khursheed Mama, a veterinary anesthesiology professor, said, noting that phenylbutazone (Bute) and flunixin meglumine (Banamine) are the two most commonly used drugs in this category."[5] These drugs are listed as prohibited for use in animals intended for human consumption with no exceptions or withdrawal periods.

Experts also recommend routine administration of a variety of medicines and treatments to keep horses healthy. "All horses should be on a deworming program that consists of either a periodic deworming treatment (usually by administering a paste) every 4 to 8 weeks or a daily dewormer in the feed." [6] It goes on to confirm that "Many different insecticidal salves, lotions, sprays, and rubs are available that can be used to remove ticks and decrease insect irritation and annoyance."[7] The most common dewormers and insecticides include labels that read: "Not for use in horses intended for human consumption."[8] This is considered necessary, for proper equine care.

When a horse is repurposed and channeled into the pipeline for slaughter, that health history is lost as there is no tracking or regulation of equine care and treatment comparable to animals raised for food. Equines are not intended for human consumption, and their health history is not monitored or regulated throughout their lives. Their lives typically involve some form of work or performance and routine health care – all of which would lead to their ingestion or absorption of useful and helpful substances that also happen to be strictly prohibited for food animals. This treatment enhances their well-being, safety, and as a result, their performance, and it serves their true purpose.

Contrast this reality with the way food animals are raised and treated, from birth to death. They are fed approved feed and given approved drugs. Producers are required to follow regulatory guidelines

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[3] 91% of horse owners give their equines medications. APPA National Pet Owners Survey 2019-2020
[4] https://www.merckvetmanual.com/horse-owners/routine-care-and-breeding-of-horses/routine-health-care-of-horses
[5] https://thehorse.com/118918/pain-management-options-for-horses/ Reporting on the presentation at the 2011 Western Veterinary Conference on Feb. 20-24 in Las Vegas, by Nev., Khursheed Mama, DVM, Dipl. ACVA, a professor of veterinary anesthesiology at Colorado State University, discussing the different analgesic (pain management) options available and how effective they generally are for treating horses' pain.
[6] Id
[7] Id
[8] For example: https://www.merck-animal-health-usa.com/product/cattle/Panacur-Suspension-(Drench)/1

determined by federal agencies working to keep our food safe. Equines exist completely outside that regulatory framework – their owners, veterinarians, and trainers do not anticipate that their flesh will be eaten by humans. The fact that horses are raised outside of the food system and the critical federal regulations controlling that system makes obvious the reasons for never allowing them to enter the food supply. Yet each year we indirectly allow thousands of pounds of toxic meat from American horses to be exported for human consumption.

b. The Toxicity of Meat from American Equines

As mentioned above, of the substances commonly administered to equines, one of the most prevalent and most toxic to humans is phenylbutazone ("bute"). The anti-inflammatory drug is used as routinely in horses as aspirin or ibuprofen is used in humans. If a horse has had human contact, it is safe to assume that the horse has had bute.[9] In humans the drug is a potential carcinogen[10] and known to induce blood dyscrasias such as aplastic anemia, leukopenia, agranulocytosis, thrombocytopenia (a hypersensitivity reaction in the liver which can cause renal failure and death), seizures, psychosis, hallucinations, etc.[11] Due to these often idiosyncratic health risks, phenylbutazone is currently approved for use only in dogs and horses. Per the FDA, "There are currently no approved uses of phenylbutazone in food-producing animals."[12]

Other examples of FDA-banned substances commonly given to horses include dewormers, fly sprays, pain relievers, performance enhancers, hoof hardeners, tranquilizers, hormone regulators, antibiotics, antiseptics, and anesthetics. Many of these are carcinogens, some may cause developmental issues in children, or cardiovascular issues, or cancers, etc.[13] The FDA banned these drugs for human use or use on animals meant for human consumption expressly because they are toxic to humans and should not be present in our food regardless of concentration levels.

c. The Need for FDA Enforcement

The FDA has jurisdiction over animals raised for food and any use of prohibited substances in those animals. Based on that agency's unambiguous regulations, virtually all horsemeat produced in the U.S is adulterated and unfit for consumption. Since substances that are part of daily life for equines are expressly banned for use on food animals, there can be no question that these animals should be restricted from entering the global food supply. When food producers are found to have violated FDA rules on banned substances, the agency acts. FDA inspectors often visit farms and issue warnings when medicines or other substances have been administered for extra-label use or even when recordkeeping of drugs or substances administered is inadequate.[14] When producers of food animals violate FDA rules, there are consequences.

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[9] Affidavits attached to letter from Bruce A. Wagman, Esq. to U.S. Food Safety & Inspection Service, February 19, 2013

[10] JAVMA News. 2003. "Extralabel use of phenylbutazone banned in dairy cattle." https://www.avma.org/javma-news/2003-04-15/extralabel-use-phenylbutazone-banned-dairy-cattle

[11] U. S. Food and Drug Administration. 2003. Final rule on PBZ. Federal Register Volume 68, Number 40. www.gpo.gov/fdsys/pkg/FR-2003-02-28/html/03-4741.htm; Dodman, Blondeau, & Morini. 2010. "Association of phenylbutazone with horses bought for slaughter: A public health risk. *Food and Chemical Toxicology*. (48)5. https://www.sciencedirect.com/science/article/pii/S0278691510001225

[12] U. S. Food and Drug Administration. 2003. Final rule on PBZ. Federal Register Volume 68, Number 40. www.gpo.gov/fdsys/pkg/FR-2003-02-28/html/03-4741.htm

[13] See Exhibit A in Appendix, "Banned and Dangerous Substances Commonly Given to Horses Sent to Slaughter."

[14] U.S. Food and Drug Administration. 2018. "Warning Letter: Welter Farms Inc." https://www.fda.gov/inspections-compliance-enforcement-and-criminal-investigations/warning-letters/welter-farms-inc-562966-11272018; or U. S.

These rules and regulations are in place to protect the public from harmful chemicals, drugs, or other substances in food products. The recommended healthcare routine for equines involves drugs and treatments banned for use on food animals, and no records are kept of when, how much, how often, or what type of substances are administered. The SAFE Act would statutorily recognize that equines raised outside of our food system are not fit for human consumption.

d. The Dangers of Horsemeat in the Market

Countries that do eat or slaughter horses for human consumption have dealt with a host of issues related to cross-contamination of other meat products and banned substances in meat. An article published in the *Food and Chemical Toxicology Journal* estimated that 9,000 pounds of meat taken from horses with known exposure to phenylbutazone were sent abroad for human consumption over the five-year study period – the entire sample they were observing.[15] Another study looking at the prevalence of comingled horsemeat in beef products in Mexico found that of the approximately 10% of samples that contained equine tissue, a disturbing figure in itself, all of them contained clenbuterol – a drug banned for use on animals meant for human consumption.[16] In the UK and the EU in 2013, a scandal erupted when products labeled as beef were found to contain horsemeat. Consumer confidence in meat products dropped dramatically; frozen beef sales plummeted 43%.[17] These shocking developments foreshadow the threat to American health that may result if horse slaughter resumes in the U.S.

Recognizing the dangers that American horsemeat represents, not only in terms of health risks but also in consumer confidence in federally inspected food products, the European Commission (EC) in 2015 banned all horsemeat imports from Mexico, where the majority of American horses are slaughtered. The decision followed a scathing 2014 audit of EU-certified Mexican horse slaughter plants conducted by the EC's Food and Veterinary Office (FVO). The audit report cited lack of traceability and controls on substances given to equines throughout their lives.[18] In 2017 the EC acted again, in light of an FVO audit of Canadian horse slaughter facilities.[19] This time, the EC implemented new regulations requiring that all American horses destined for slaughter in Canada be held for six months prior to slaughter if their meat was destined for EU member countries. While the intent is to control banned substances, many of these substances are banned in *any concentration and for use on food animals at any point in their lives.*

Americans do not eat horsemeat, so there is no domestic demand for the product. Horses have not been commercially slaughtered in the U.S. for more than a decade. However, the risk that this domestic prohibition could lapse remains, in the absence of a permanent federal prohibition. If that were to happen, and horse slaughter plants returned to the U.S., we should expect that events such as those described above would threaten U.S. consumers as well. When asked about the risk of horsemeat being comingled with other products in the U.S., the USDA responded that the risk was low so long as horses were not

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Food and Drug Administration. 2011. "A Win for FDA's Food Safety Mission." https://www.fda.gov/animal-veterinary/compliance-enforcement/win-fdas-food-safety-mission

[15] Dodman, Blondeau, & Morini. 2010. "Association of phenylbutazone with horses bought for slaughter: A public health risk. *Food and Chemical Toxicology.* (48)5. https://www.sciencedirect.com/science/article/pii/S0278691510001225

[16] Lozano, et al. 2020. "Horse meat sold as beef and consequent clenbuterol residues in the unregulated Mexican marketplace." *Food Control.* 1:10. https://www.sciencedirect.com/science/article/abs/pii/S0956713519306176

[17] Neville, Simon. 2013. *The Guardian.* http://www.guardian.co.uk/uk/2013/feb/26/frozen-beefburger-sales-down-43-horsemeat

[18] Final Report of an Audit Carried Out in Mexico from 24 June to 04 July 2014: http://ec.europa.eu/food/fvo/rep_details_2_en.cfm?rep_id=3364#

[19] Final Report of an Audit Carried Out in Canada from 02 to 15 May 2014: http://ec.europa.eu/food/fvo/rep_details_2_en.cfm?rep_id=3442

slaughtered here[20]. The only sustainable way to protect American consumers is to permanently prevent this industry from returning to the U.S.

III. Irrefutable Cruelty

The animal welfare community, representing millions of Americans across the country, supports a ban on horse slaughter. Animal protection organizations large and small, urban and rural, equine and not, recognize the inherent cruelty of long-distance transport and commercial slaughter of these uniquely fractious and highly sensitive animals. American horses are not food animals and are not raised for this purpose. Condemning them to such intolerable suffering is a shameful betrayal of their trust.

a. Physiological Mismatch

Horses are particularly ill suited for slaughter due to their physiology and natural behavior, and to the equipment used to stun and kill them. Humane slaughter, by definition, requires that an animal be rendered unconscious prior to being dismembered. This standard is impossible to meet with equines – especially in a modern commercial slaughterhouse. Equines have long necks, a high center of gravity, and a strong flight response in the presence of danger. These qualities make them extremely difficult to immobilize and render insensible to pain. In the stunning box, horses' heads are unrestrained and may flail and flinch in a manner inconsistent with humane slaughter. Inevitably, the captive bolt misses its target multiple times, sending the injured equine into a panic.

The cruelty of this industry does not begin and end at the slaughterhouse. Horses arrive at these facilities from all over the country, often traveling up to 28 hours with no food, water, or rest. Crammed into trailers with unfamiliar animals, horses endure grueling journeys that often result in horrific injuries or death. When such facilities were operating in the U.S., the USDA documented gruesome injuries to horses arriving at the slaughterhouse, such as dislodged eyeballs, detached limbs, and downed horses who had been trampled to death.[21] Until the SAFE Act becomes law, these horrors will continue. The 2014 audit of EU-approved slaughter plants in Mexico cited above documented persistent and extremely serious welfare concerns during transport and at the slaughter facilities. Inspectors noted that at multiple facilities handlers did not even bother to confirm that an animal had been effectively stunned before being hoisted for dismemberment. Whether in the U.S. or abroad, horse slaughter is not a humane practice.

e. Commercial Slaughter is Not Euthanasia

The ASPCA supports humane euthanasia for horses when quality of life is untenable. The entire slaughter process from start to finish flagrantly contradicts anything we would characterize as humane euthanasia. The word "euthanasia" literally means a good death. It is an act of mercy for an individual who no longer has a good quality of life. When we think of euthanasia, we imagine old, sick, or injured animals needing a peaceful and dignified end of life. Humane euthanasia would normally involve a call to the veterinarian for a peaceful, swift end. Loading an already-suffering horse into a transport vehicle and shipping her for up to 24 hours to a slaughterhouse is not euthanasia.

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[20]Weise, Elizabeth. 2013. "U.S. Officials: No horse meat in our beef." USA Today. https://www.usatoday.com/story/news/2013/03/01/horse-meat-united-states/1957893/

[21] U.S. Department of Agriculture. 2005, FOIA Request #06-108.

Further, shipping sick or compromised horses across the country creates a serious public health risk to other horses. The law expressly prohibits diseased animals from being transported, slaughtered, and entering the food system. Dr. Nicholas Dodman, in his 2008 testimony before the House Judiciary Committee on behalf of Veterinarians for Equine Welfare, stated: "No ethical veterinarian, faced with a client who has a horse that is old, sick or otherwise no longer wanted, would suggest that the horse in question should be put on a truck and hauled thousands of miles to slaughter. Instead, the veterinarian would most likely suggest truly humane euthanasia via chemical injection…"[22]

Slaughterhouses are not designed as sites for humane euthanasia. The USDA's own data showed that when horse slaughter plants were operating in the U.S., 92.3% of horses at those facilities were in good condition.[23] Because kill buyers (brokers who buy and sell horses for slaughter) profit from robust, large animals, they avoid equines with poor body condition. This reality underscores the logical flaw in the suggestion that slaughter serves as an outlet for horses in poor condition or health. To increase profits, kill buyers often unload underweight horses at auction and buy healthier ones to take across the border.[24] The horses left behind are then at greater welfare risk, potentially suffering additional neglect if no home is found. This is not a system designed for a humane end of life option, nor is it a form of population control. It is a system designed to meet fluctuating and, in recent years, dwindling, foreign demand for horsemeat regardless of the U.S. population of horses. Over the years, the number of horses in the U.S. has hovered between seven million and nine million, while the number of horses exported for slaughter has risen and declined dramatically.[25] The number of horses sent to slaughter does not mirror the population, it mirrors the demand for horsemeat.

IV. Mounting Harmful Impacts and Consequences of Legal Horse Slaughter

The loophole that allows American horses to be exported for slaughter is causing havoc in the equine community. In many ways, the horse slaughter industry itself is a barrier to rehoming and adoption of horses. The industry instills fear in horse owners and inhibits good welfare for their horses. It also incentivizes predatory practices that waste resources, cause neglect, stymie efficient and effective horse rescue work, and create an image problem for the equine industry at large.

a. Theft and Fraud

The very existence of a horse slaughter industry incentivizes horse theft and fraud. Kill buyers may pose as responsible re-homers, answering sale ads and even knocking on doors. In many heartbreaking cases, distressed owners have contacted the ASPCA and the media hoping to recover their horses, to no avail. In one recent case, a veterinary student posing as a retirement facility owner took more than 50 horses, claiming she would provide them with sanctuary. Only when the owners inquired about the horses

[22] Transcript of House Judiciary Committee hearing, July 31, 2008, p. 65 - https://www.govinfo.gov/content/pkg/CHRG-110hhrg43830/pdf/CHRG-110hhrg43830.pdf
[23] Grandin, Temple, *Survey of Trucking Practices and Injury to Slaughter Horses* https://www.grandin.com/references/horse.transport.html
[24] Horse Plus Humane. 2020. "Horse Rescue Heroes." https://www.youtube.com/watch?v=JjEjug7ZPeU&feature=youtu.be&fbclid=IwAR0Dw-iVRPosKbA3cZPIa0Y3BOTtpDKYCr7tElDzDh4dgTn6fCOgfBZ_Zsk
[25] 2017 Economic Impact Study of the U.S. Horse Industry. https://www.horsecouncil.org/resources/horsecouncil-publications/

months later did they discover that their horses had likely been sent to slaughter.[26] Cases like this happen with some frequency as the current system creates an incentive for such schemes. Horses are even stolen out of their barns and paddocks. Show horses have been led from their stalls, even in secure and sophisticated facilities, and then slaughtered for their meat.[27] With little traceability, chances of recovering stolen horses are low. Banning the practice has demonstrably reduced the risk of theft – after California enacted a ban in 1998, horse theft cases fell by 34 %.[28] A federal ban would be far more effective and remove the incentive to make a quick buck off unwitting owners.

b. Neglect

Predatory and fraudulent schemes cause a ripple effect. Ever present in the mind of many horse owners is the horrifying scenario of their animal winding up on a truck to slaughter. Many owners, even those who are no longer physically or financially able to care for their animals, are not willing to take the risk of unknowingly selling them to the wrong person. As a result, they may skip veterinarian visits, or stop physically checking on the horse, or let good daily care lapse. Too often, these well-intentioned owners may allow their horses to fall ill or suffer neglect.

We are only starting to understand how broadly this fear and its negative side effects have spread. The ASPCA piloted two open admission facilities for equines in 2018 and 2019 in Dallas and Oklahoma City, respectively. In an innovative approach to addressing equine welfare on the ground, our team worked with veterinarians and rescue groups, developing a triage center to provide veterinary care, rehoming, and humane euthanasia, when needed. Almost 80% of the owners who came forward acknowledged that their fear of trusting the wrong person made them hold on to their horses longer than they should have. Clearly, the existence of horse slaughter as a legal option causes suffering to equines even outside the slaughterhouse. A permanent ban on horse slaughter would eliminate this disturbing, pervasive risk to equine welfare.

c. The Burden on Rescues and Barriers to Rehoming

The slaughter industry insidiously undermines the important work of horse rehoming and rescue. It is common practice for kill buyers to frequent regular horse auctions and actively outbid responsible horse owners and rescue groups – forcing them to overspend their limited financial resources in bidding wars. Kill buyers often focus their bids on horses that a rescue group is trying save, thereby depleting that rescue's resources and reducing competition for the other horses at the auction. Rescuers should not have to compete against a for-profit industry, and public policy should promote, not hinder, equine rescue.

In another ploy, kill buyers use the Internet to hold horses hostage online, warning well-intentioned individuals that they must pay a ransom to "save" a horse from being shipped to slaughter. They post photos of the horse and specify a "buy or they die" deadline for "bailing out" the animal. Bailouts can bring kill buyers three to four times what they would get for selling the horse directly to slaughter. The consequences of this unscrupulous fraud on the equine rescue community are enormous. Spending $1,500 to bail out a horse that cost $300 at auction means the loss of $1,200 that could have been spent saving

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[26] Berson, Scott. 2018. "Vet student promised good home for horses. She sold them for slaughter instead, cops say." *Miami Herald*. https://www.miamiherald.com/article208182739.html

[27] Sample media coverage: https://www.tampabay.com/news/publicsafety/crime/1300-pound-show-horse-slaughtered-on-florida-farm/2251385/; http://wsvn.com/news/local/several-horses-found-slaughtered-in-northwest-miami-dade/; https://www.mysuncoast.com/2019/12/03/deputies-search-suspects-who-stole-slaughtered-show-horse-palmetto/

[28] Numbers obtained from the California Livestock and Identification Bureau, http://cdfa.ca.gov/ahfss/Livestock_ID/.

more horses. The continuation of the horse slaughter industry places onerous burdens on the equine rescue community and diminishes the good that one precious dollar can do. [29]

The Homes for Horses Coalition, a member organization of 440 horse rescues and sanctuaries across the country, knows this all too well. That is why every member endorses the SAFE Act and supports a ban on horse slaughter. This legislation is necessary for them to do their jobs and will redirect the resources now being diverted to save horses from the grips of kill buyers.

d. Public Perception of the Equine Industry

Public participation in certain sectors of the equine industry is declining, and some have an image problem. To address this, and to protect the animals on which their businesses depend, many industry groups support a ban on horse slaughter. For example, the thoroughbred racing industry has made meaningful strides to protect the equine athletes in their care by providing funding for aftercare programs and supporting racetrack bans on selling racehorses to slaughter. Influential groups such as The National Thoroughbred Racing Association and The Jockey Club have endorsed the SAFE Act, leading the charge to protect their equine athletes both while competing and after. Many stakeholders know that public perception and trust are vital to ensuring a sustainable industry, and that meaningful reforms to ensure good welfare must be embraced. The Maryland and Texas State Horse Councils, created to promote the interests of the equine industries, have endorsed a federal ban on horse slaughter as an crucial aspect of equine welfare and a means to ensuring a sustainable future for their industry.

V. The Good News

In 2019, an estimated 61,730 equines were sent to slaughter for human consumption in Canada and Mexico. That figure represents a 24% drop from 2019, and a 63% drop from 166,572 in 2016.[30] Every state is home to multiple equine rescue facilities that serve large communities or even multiple states. Resources continue to build steadily, and organizations serving equines and their owners are networking more closely than ever. We believe that equine rescues, combined with vibrant and growing rehoming and shelter options coming online across the country, are equipped to take in and help care for the animals destined for slaughter. Removing the barriers that kill buyers create for horses in transition at auctions will likely have a tremendously positive and synergistic impact on these promising developments.

Even more encouraging is the estimated number of homes for horses in the U.S. when people learn of the need. Americans care deeply about horses and stand ready, willing, and able to help in large numbers. A study published in 2017 by the ASPCA and Edge Research found that 2.3 million Americans have the resources and the strong desire to adopt a horse right now.[31] If even just half that many homes are available, we can rehome every horse sent to slaughter for the next decade through education and networking alone. This suggests that the challenge is not about creating homes, but about matching them with horses in need.

Another indicator of support for horses in need of homes is the ASPCA's development of tools, resources, and incentives for shelters and rescues to increase their capacity and rehome more horses. In 2018 and 2019, we conducted a contest aimed at increasing adoptions nationally. In 2018 participating

[29] Horse Rescue Group Tries to Outbid Kill Buyers: https://www.youtube.com/watch?v=Rew4Go5yIfQ; Kill Pen Horses: The Catch 22 of Equine Rescue: https://www.youtube.com/watch?v=ovr-RFOogrk; Saving Horses From the Hill Lot, One at a Time: https://www.youtube.com/watch?v=_FL7-Hf2uFk

[30] Statistics Canada reports and USDA reports, ibid.

[31] Weiss, et al. 2017. "Estimating the Availability of Potential Homes for Unwanted Horses in the United States." *Animals.* (7)7.https://www.mdpi.com/2076-2615/7/7/53

groups rehomed over 1,000 equines in just two months, with many doubling and even tripling the number of horses compared to the previous year. In 2019, they rehomed over 1,500 equines in that same time frame.

The myth that horse slaughter somehow prevents suffering is an inversion of reality. The presence of horse slaughter actually magnifies suffering. We know that the horse slaughter industry poses a threat to human health as well as to equine welfare, by producing and introducing into the food supply meat laced with toxic substances. Americans want to see an end to this grisly and unnecessary practice, and they are urging Congress to enact the SAFE Act. The ASPCA and other organizations across the country are working resolutely and innovatively to solve equine welfare issues on the ground, but we cannot truly succeed while the slaughter pipeline remains open. With the strong support of the American public, and a clear FDA mandate to regulate and ban toxic substances that threaten public health, now is the time to end the slaughter of American horses for human consumption. I urge you to support the SAFE Act and open a new humane chapter in the history of our nation's equines.

Appendix

Exhibit A (See Attachment)

BANNED AND DANGEROUS SUBSTANCES COMMONLY GIVEN TO HORSES SENT TO SLAUGHTER

	Drug	Product/Type/Warnings	Potential problems from human ingestion of residue or metabolites
1.	**Acepromazine**	Anti-anxiety/tranquilizer Previously used in humans, but use discontinued	*See also* Citak A, Soysal DD, Uçsel R, Karaböcüoglu M, Uzel N., *Seizures associated with poisoning in children: tricyclic antidepressant intoxication*, PEDIATR INT. 48(6):582-585 (2006) (Two children suffered cardiac arrest from intoxication from acepromazine and died.).
2.	**Acetazolamide**	Diuretic for horses. Used to treat epilepsy and benign intracranial hypertension in children and adults.	Acetazolamide (sulfonamide) induces metabolic alkalosis and is contraindicated in patients with hyperchloremic acidosis, angle-closure glaucoma, kidney and liver disease, and in patients with Addison's disease. Fatalities have occurred (rare) due to Stevens-Johnson syndrome (diffuse rash that sloughs), toxic epidermal necrolysis, fulminant hepatic necrosis, agranulocytosis, aplastic anemia, and other blood dyscrasias. Sensitizations may recur when a sulfonamide is readministered irrespective of the route of administration. If signs of hypersensitivity or other serious reactions occur, discontinue use of this drug. Caution is advised for patients receiving concomitant high-dose aspirin and Acetazolamide, as anorexia, tachypnea, lethargy, coma and death have been reported. http://www.drugs.com/pro/acetazolamide.html
3.	**Acriflavine**	Blue-Kote (topical ointment, antiseptic, protective wound dressing) http://www.drugs.com/vet/dr-naylor-blu-kote.html Not for use on animals intended for food. http://www.horsesuppliesplus.com/antiseptics.html	Acriflavine is an ingredient found in Blue-Kote, which is itself labeled "not for use on animals intended for food." The dangers for humans who ingest this substance are unknown.
4.	**Altrenogest**	Regu-Mate (altrenogest/oral progestin) (growth promoter) 21 CFR § 520.48: - "Do not use in horses intended for human consumption." "Do Not Use In Horses Intended For Human Consumption." http://www.drugs.com/vet/regu-mate-solution.html	Active harmful ingredients (residue): Progestin. Progestin is used in the mini-pill to prevent contraception so progestin could result in an aborted fetus in a pregnant woman. Progestin along with estrogens are pro-thrombotic meaning that they cause deep blood clots, including venous thrombosis and cerebral thrombosis. http://www.nejm.org/doi/full/10.1056/NEJM200105173442007 Combined with estrogens, progestin increases the risk of breast cancer and cardiovascular problems.

	Drug	Product/Type/Warnings	Potential problems from human ingestion of residue or metabolites
			http://www.whi.org/findings/ht/eplusp_3yr.php Increased stroke risk. http://www.whi.org/findings/ht/ealone_stroke.php HUMAN WARNINGS Skin contact must be avoided as Regu-mate® (altrenogest) Solution 0.22% is readily absorbed through unbroken skin. Protective gloves must be worn by all persons handling this product. Pregnant women or women who suspect they are pregnant should not handle Regu-mate® (altrenogest) Solution 0.22%. Women of child bearing age should exercise extreme caution when handling this product. Accidental absorption could lead to a disruption of the menstrual cycle or prolongation of pregnancy. Direct contact with the skin should therefore be avoided. Accidental spillage on the skin should be washed off immediately with soap and water. http://www.drugs.com/vet/regu-mate-solution.html
5.	**Aluminum hydroxide**	Strepvax II (component in equine vaccine) Used in humans for gastrointestinal problems, ulcers. http://www.drugs.com/vet/strepvax-ii.html	WARNINGS/PRECAUTIONS May cause constipation. Caution with renal failure; prolonged use may result in or worsen dialysis osteomalacia. Elevated tissue aluminum levels contribute to the development of dialysis encephalopathy and osteomalacia syndromes. Caution with normophosphatemic patients; prolonged use may result in hypophosphatemia if phosphate intake is inadequate. ADVERSE REACTIONS Constipation, dialysis osteomalacia, hypophosphatemia. http://www.pdr.net/drugpages/concisemonograph.aspx?concise=1544 Can cause constipation, confusion, loss of appetite, and muscle weakness. http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0001056/
6.	**Amikacin**	Antibiotic 21 CFR § 529.56 - "Do not use in horses intended for human consumption"	Antibiotics are potentially dangerous to humans who either have allergies or sensitivities to them. Additionally, the use of antibiotics in food animals, and the subsequent ingestion by humans of those animals, has the potential to create antibiotic resistance in humans, which can cause significant problems for humans upon subsequent illness.
7.	**Amoxicillin**	Antibiotic	Infections and Infestations: Mucocutaneous candidiasis. Gastrointestinal: Nausea, vomiting, diarrhea, black hairy tongue, and hemorrhagic/pseudomembranous colitis. Onset of pseudomembranous colitis symptoms may occur during or after antibiotic treatment. Hypersensitivity Reactions: Anaphylaxis Serum sickness-like reactions, erythematous maculopapular rashes, erythema multiforme, Stevens-Johnson syndrome, exfoliative dermatitis, toxic epidermal necrolysis, acute generalized exanthematous pustulosis, hypersensitivity vasculitis and urticaria have been reported. Liver: A moderate rise in AST (SGOT) and/or ALT (SGPT) has been noted, but the significance of this finding is unknown. Hepatic dysfunction including cholestatic

	Drug	Product/Type/Warnings	Potential problems from human ingestion of residue or metabolites
			jaundice, hepatic cholestasis and acute cytolytic hepatitis have been reported. Hemic and Lymphatic Systems: Anemia, including hemolytic anemia, thrombocytopenia, thrombocytopenic purpura, eosinophilia, leukopenia, and agranulocytosis have been reported during therapy with penicillins. These reactions are usually reversible on discontinuation of therapy and are believed to be hypersensitivity phenomena. Central Nervous System: Reversible hyperactivity, agitation, anxiety, insomnia, confusion, convulsions, behavioral changes, and/or dizziness have been reported rarely. Miscellaneous: Tooth discoloration (brown, yellow, or gray staining) has been rarely reported. Most reports occurred in pediatric patients. Discoloration was reduced or eliminated with brushing or dental cleaning in most cases. http://www.drugs.com/sfx/amoxicillin-side-effects.html
8.	**Ampicillin sodium**	Antibiotic for treatment of respiratory tract infections (pneumonia and strangles) and skin and soft tissue infections (abscesses and wounds), when caused by susceptible organisms. 21 CFR § 522.90c - "Do not use in horses intended for human consumption."	COMMON SIDE EFFECTS Inflammation and redness of the tongue; irritation of mouth or throat; mild diarrhea; nausea; second infection; vomiting. SEVERE SIDE EFFECTS Severe allergic reactions (rash; hives; itching; difficulty breathing; tightness in the chest; swelling of the mouth, face, lips, or tongue); bloody stools; severe diarrhea; stomach pain/cramps; vaginal irritation or discharge. http://www.drugs.com/sfx/ampicillin-side-effects.html See also side effects for ampicillin injection: •upset stomach, diarrhea, vomiting, mild skin rash More severe: •severe skin rash, itching, hives, difficulty breathing or swallowing, wheezing, unusual bleeding or bruising, headache, dizziness, seizures, sore mouth or throat http://www.nlm.nih.gov/medlineplus/druginfo/meds/a601133.html Material Safety Data Sheet ("MSDS") for ampicillin sodium salt: Toxic Effects on Humans: Hazardous in case of ingestion, of inhalation. http://www.sciencelab.com/msds.php?msdsId=9925610
9.	**Aspirin**	Aspir-paste http://www.drsfostersmith.com/1/1/10913-aspir-paste-by-oral-x.html Reduces joint, muscle, and lameness pain.	WARNINGS/PRECAUTIONS Avoid in children or teenagers for chickenpox or flu symptoms; Reye's syndrome may occur. May cause severe allergic reaction (hives, facial swelling, asthma, shock) and stomach bleeding. Avoid in asthma, stomach problems that persist or recur, ulcers, or bleeding problems. ADVERSE REACTIONS Allergic reaction, hives, facial swelling, asthma, shock. http://www.pdr.net/drugpages/concisemonograph.aspx?concise=195

	Drug	Product/Type/Warnings	Potential problems from human ingestion of residue or metabolites
			Can cause excessive bleeding in those taking warfarin; http://stroke.ahajournals.org/content/40/5/1944.full Severe allergic reactions (rash; hives; itching; difficulty breathing; tightness in the chest; swelling of the mouth, face, lips, or tongue); black or bloody stools; confusion; diarrhea; dizziness; drowsiness; hearing loss; ringing in the ears; severe or persistent stomach pain; unusual bruising; vomiting. http://www.drugs.com/sfx/aspirin-side-effects.html
10.	**Avermectin A1a, 5-O-demethyl-25-de(1-methylpropyl)-22,23-dihydro-25-(1-methylethyl)-**	Farnam Ivercare (dewormer) http://msds.farnam.com/m001116.htm Ivercare Paste is labeled "Do not use in horses intended for food purposes." http://www.drugs.com/vet/ivercare-paste-1-87.html	A hazardous component of the Farnam Ivercare dewormer product. http://msds.farnam.com/m001116.htm Links to the toxicological literature here: http://pubchem.ncbi.nlm.nih.gov/summary/summary.cgi?sid=14145#x50 http://toxnet.nlm.nih.gov/cgi-bin/sis/search/r?dbs+toxline:@term+@rn+65195-51-9+@OR+@all
11.	**Benzyl alcohol**	Equipoise Equipoise Injectable http://www.drugs.com/vet/equipoise-injectable-can.html	ADVERSE REACTIONS Pruritis, erythema, pyoderma, ocular irritation. http://www.pdr.net/search/searchResult.aspx?searchCriteria=Benzyl+alcohol
12.	**Boldenone undecylenate**	Equipoise injectable 21 CFR § 522.204 - "Do not administer to horses intended for human consumption." Equipoise injectable (boldenone undecylenate injection) is recommended as an aid for treating debilitated horses when an improvement in weight, haircoat or general physical condition is desired. http://www.drugs.com/vet/equipoise-injectable-can.html	Boldenone undecylenate is a steroid ingredient in Equipose (for horses). It is not indicated for use in humans but appears to have off-label uses as a bodybuilding steroid. Known side effects consist of: nausea, leukopenia, symptoms resembling a peptic ulcer, acne, excitation (commonly referred to as roid rage), sleeplessness, chills, vomiting, diarrhea, hypertension, prolonged blood clotting time, increase in libido. Females had reported menstrual irregularities, post-menopausal bleeding, increased sex drive, swelling of the breasts, hoarseness or deepening of the voice, and enlargement of the clitoris. Men had reported acne, gynocomastia, and increased aggression. http://www.anabolicsmall.com/equipoise.html Steroids should be taken under a doctor's supervision and have multiple significant adverse affects including severe allergic reactions, hormonal changes, changes in menstrual functions, mental and mood changes, respiratory problems, nausea and vomiting, joint swelling, vision changes, and unusual weight gain.
13.	**Butorphanol**	For the relief of pain associated with colic and postpartum pain in adult horses and yearlings.	COMMMON SIDE EFFECTS Dizziness; drowsiness; dry mouth; light-headedness; nasal irritation; nausea; runny nose; sore throat; stuffy nose; trouble sleeping; unpleasant taste; vomiting.

	Drug	Product/Type/Warnings	Potential problems from human ingestion of residue or metabolites
		21 CFR § 522.246 - "Do not use in horses intended for human consumption."	SEVERE SIDE EFFECTS Severe allergic reactions (rash; hives; itching; difficulty breathing; tightness in the chest; swelling of the mouth, face, lips, or tongue); blurred vision; burning, numbness, or tingling; change in the amount of urine produced; chest pain; confusion; ear pain; fainting; fast, slow, or irregular heartbeat; flushing; hallucinations; mental or mood changes (agitation, anxiety, depression); restlessness; ringing in the ears; seizures; severe or persistent dizziness, drowsiness, or light-headedness; severe or persistent headache or trouble sleeping; shortness of breath; slow, shallow, or difficult breathing; tremors; unusual swelling. http://www.drugs.com/sfx/butorphanol-side-effects.html
14.	**Butoxy Polypropylene Glycol**	Farnam Bronco Gold (fly spray) http://msds.farnam.com/m001650.htm Farnam Endure Fly Spray http://msds.farnam.com/m000080.htm Farnam Endure Sweat-Resistant http://msds.farnam.com/m001046.htm Farnam Tri-Tec 14 http://msds.farnam.com/m000490.htm Farnam Wipe (fly control	In 2002, a woman in Oklahoma was hospitalized after using Pyranha fly spray on horses. Her face was distorted, and her words slurred. She reportedly had leg problems, tremors, memory problems. The medical toxicologist's conclusion was that the patient, a professional horse trainer, developed a complex neurotoxic movement disorder following sensitization to a product that contained 33% /butoxypolypropylene glycol/ BPG. Adverse reactions and side effects of ingestion are unknown.
15.	**Carbadox**	Antibiotic used for growth promotion purposes (generic)	Not permitted for use in food-producing animals in Australia (http://www.apvma.gov.au/registration/not_permitted.php) Or in Canada, or the European Union. (http://www.hc-sc.gc.ca/dhp-mps/vet/faq/faq_mrl-lmr-eng.php#a6) Not for human use. http://www.drugs.com/pro/mecadox.html Chronic health effects, including cancer, mutagenic effect, changes in lung function. Accidental ingestion may cause serious harm or be fatal. MSDS SUPPLIER http://datasheets.scbt.com/sc-204668.pdf
16.	**Ceftiofur Crystalline Free Acid**	Excede (antibiotic) For the treatment of lower respiratory tract infections in horses. 21 CFR § 522.313a	Intended for use in horses which are non-food animals. Because this indication for this new animal drug is not intended for use in food producing animals, there is no data pertaining to drug residues in food (i.e., human food safety). WARNINGS

	Drug	Product/Type/Warnings	Potential problems from human ingestion of residue or metabolites
		- "Do not use in horses intended for human consumption." http://www.excede.com/Excede.aspx?country=US&drug=XT&sec=100&species=EQ	Not for use in humans. For use in animals only. Consult a physician in case of accidental human exposure. Do not use in horses intended for human consumption. http://animalhealth.pfizer.com/sites/pahweb/US/EN/Products/Documents/Combined%20Full%20PI%20(8_5x11)%20-%20EXEQ0110014.pdf
17.	**Ceftiofur Sodium**	Ceftiflex powder For treatment of respiratory infections in horses. 21 CFR § 522.313c - "Do not use in horses intended for human consumption." http://www.drugs.com/vet/ceftiflex.html	Penicillins and cephalosporins can cause allergic reactions in sensitized individuals. Topical exposure to such antimicrobials, including ceftiofur, may elicit mild to severe allergic reactions in some individuals. Repeated or prolonged exposure may lead to sensitization. Avoid direct contact of the product with the skin, eyes, mouth, and clothing. http://www.drugs.com/vet/ceftiflex.html
18.	**Chloramphenicol**	Chlor-500 Chlor-1000 Chloramphenicol 1% Ointment "Not for use in animals that are raised for food production. Must not be used in meat, egg, or milk-producing animals. 21 CFR § 520.390a; 520.390c; 522.390; 524.390. http://www.drugs.com/vet/chlor-500-can.html http://www.drugs.com/vet/chlor-1000-can.html http://www.drugs.com/cdi/chloramphenicol.html http://www.drugs.com/vet/chloramphenicol-1-ophthalmic-ointment-can.html	Some medicines may interact with Chloramphenicol: •Anticoagulants (e.g., warfarin) because side effects, including risk of bleeding, may be increased. •Hydantoins (e.g., phenytoin) or sulfonylureas (e.g., glyburide) because the actions and side effects of these medicines may be increased. •Medicines that may decrease your bone marrow (e.g., cancer chemotherapy) because the risk of serious side effects, such as low blood platelet levels and low white blood cell counts, may be increased. Chloramphenicol has caused severe and sometimes fatal blood problems (e.g., anemia, low blood platelets, low white blood cell counts). Leukemia has also been reported after use of Chloramphenicol. Blood problems have occurred after both short-term and long-term use of Chloramphenicol. Do not use chloramphenicol if safer, effective medicines can be used. http://www.drugs.com/cdi/chloramphenicol.html Prohibited for use in food-producing animals in the European Union.
19.	**Chloroform**	Anesthetic	The IARC (International Agency for Research on Cancer) classifies chloroform as possibly carcinogenic to humans. http://monographs.iarc.fr/ENG/Monographs/vol73/mono73.pdf
20.	**Cimetidine**	Prevention and prophylaxis of	ADVERSE REACTIONS

	Drug	Product/Type/Warnings	Potential problems from human ingestion of residue or metabolites
		gastrointestinal irritation and ulcers	Diarrhea, headache, dizziness, somnolence, reversible confusional states, reversible impotence, increased serum transaminases, rash, gynecomastia, blood dyscrasias. WARNINGS/PRECAUTIONS Reversible confusional states reported, especially in severely ill patients. Increased risk of developing confusional states with advancing age (≥50 yrs), renal and/or hepatic impairment. Risk of hyperinfection of strongyloidiasis in immunocompromised patients. http://www.pdr.net/drugpages/concisemonograph.aspx?concise=1440
21.	**Clenbuterol**	Beta-agonists used for growth promotion purposes Prohibited from any use in any food-producing animal. http://www.farad.org/eldu/prohibit.asp	Not approved for human use. http://www.deadiversion.usdoj.gov/drugs_concern/clenbuterol.htm
22.	**Copper Naphthenate**	Kopertox Treatment of thrush. 21 CFR § 524.463 - "Do not use in horses intended for human consumption." http://www.drugs.com/vet/kopertox.html http://www.sciencelab.com/msds.php?msdsId=9923553	Toxic to central nervous system, blood, and kidneys. May produce vomiting, headache, shock, jaundice, kidney damage, nervous system damage, liver damage.
23.	**Crude Liver Extract**	Liver 7 injection http://www.drugs.com/vet/liver-7-injection.html	FDA cautions against the use by humans of any animal organ extract. http://www.healthline.com/natstandardcontent/liver-extract
24.	**Cupric Sulfate**	Proudsoff (ointment for control and removal of proud flesh) Not for use on animals intended for food. http://www.drugs.com/vet/proudsoff.html	Harmful if swallowed. May cause gastrointestinal tract irritation with nausea, vomiting, diarrhea, metallic taste, burning sensation in the stomach or epigastrum, abdominal pain, and possible gastrointestinal tract bleeding. May affect metabolism, liver (liver damage, jaundice), blood, urinary system (kidney damage, hematuria, hemoglobinuria, albuminuria), behavior/nervous systems (somnolence, tremor, psychosis, muscle weakness, coma), cardiovascular system (lowering of blood pressure, dysrhythmia).
25.	**Cypermethrin**	Farnam Endure Sweat-Resistant (fly spray http://msds.farnam.com/m000080.ht	"Pyrethroid ingestion gives rise within minutes to a sore throat, nausea, vomiting and abdominal pain. There may be mouth ulceration, increased secretions and/or dysphagia. Systemic effects occur 4-48 hours after exposure. Dizziness, headache and fatigue are common, and palpitations, chest tightness and blurred vision less

	Drug	Product/Type/Warnings	Potential problems from human ingestion of residue or metabolites
		m	frequent. Coma and convulsions are the principal life-threatening features. Most patients recover within 6 days. . . ." S.M. Bradberry *et al.*, *Poisoning Due to Pyrethroids*, Toxicol Rev. 24(2):93-106 (2005) (quoting abstract). Potential organ damage. http://pmep.cce.cornell.edu/profiles/extoxnet/carbaryl-dicrotophos/cypermet-ext.html
26.	**Dapsone**	Dermatitis skin problems in horses. Acne treatment in humans.	Adverse effects include agranulocytosis, aplastic anemia, leucopenia, thrombocytopenia, hemolysis, and other blood dyscrasias have been reported after treatment. It may cause significant reduction in leukocytes, platelets, or hemopoiesis. Caution with glucose-6-phosphoate dehydrogenase (G6PD) deficiency, methemoglobin reductase deficiency, or hemoglobin M, and those who are exposed to other agents or conditions such as infection or diabetic ketosis capable of producing hemolysis. Toxic hepatitis and cholestatic jaundice reported after use. Liver function tests must be monitored if there are any abnormalities. Can cause muscle weakness. Peripheral neuropathy, nausea and vomiting, abdominal pain, and pancreatitis may occur. http://www.pdr.net/search/searchResult.aspx?searchCriteria=Dapsone
27.	**Deodorized Kerosene**	Component in Farnam Repel Xp (fly spray). http://msds.farnam.com/m000031.htm	Ingestion may cause aspiration hazard, nausea, fatigue, pulmonary edema, central nervous systemepression, convulsions and loss of consciousness. http://www.sciencestuff.com/msds/C1955.html
28.	**Deslorelin**	Used for inducing ovulation within 48 hours in ovulating mares. 21 CFR § 522.533 - "Do not use in horses intended for human consumption."	Deslorelin stops the production of certain sex hormones in horses, and has never been approved for use on humans. If it was approved, it would be for a small targeted complement of the human population with identified diseases related to the production of too much of certain sex hormones, but could otherwise produce unwanted hormonal effects and responses.
29.	**Detomidine Hydrochloride**	Dormosedan Pain relief and sedative for minor surgery. Also used in humans for sedation in intensive care and surgery conditions. 21 CFR § 522.536; 529.536 - Not for use in horses intended for food." - "Do not use in horses intended for human consumption." http://www.dormosedan.com/	Can cause hypotension, hypertension, bradycardia, dry mouth, respiratory depression, tachycardia, nausea and vomiting, atrial fibrillation, fever, hyperglycemia, anemia, hypovolemia, hypoxia, atelectasis. http://www.pdr.net/drugpages/concisemonograph.aspx?concise=2848

	Drug	Product/Type/Warnings	Potential problems from human ingestion of residue or metabolites
30.	**Dexamethasone**	Dexium injection Anti-inflammatory drug. 21 CFR § 522.540 - (d)(4) (sterile aqueous solution). "Not for use in horses intended for food." - (e)(5) (sterile aqueous solution). "Not for use in horses intended for food." 21 CFR § 522.542 - "Not for use in horses intended for food." http://www.drugs.com/vet/dexium-injection.html Steroid for humans.	Adverse reactions include fluid/electrolyte disturbances, muscle weakness, osteoporosis, peptic ulcer, pancreatitis, ulcerative esophagitis, impaired wound healing, headache, psychic disturbances, growth suppression (pediatrics), glaucoma, hyperglycemia, weight gain, nausea, malaise. http://www.pdr.net/drugpages/concisemonograph.aspx?concise=798 Steroids should be taken under a doctor's supervision and have multiple significant adverse affects including severe allergic reactions, hormonal changes, changes in menstrual functions, mental and mood changes, respiratory problems, nausea and vomiting, joint swelling, vision changes, and unusual weight gain.
31.	**Dichloromethane**	Furall Antibacterial http://msds.farnam.com/m000394.htm	If eaten, this drug can cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause kidney damage. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure. May cause carboxyhemoglobinemia. Dichloromethane has been treated as a carcinogen in California since 1988 and it may also have adverse reproductive effects. http://www.sciencelab.com/msds.php?msdsId=9948&code=SLM2677
32.	**Diclazuril**	Clinacox Antiprotozoal Used to treat infections leading to myoencephalitis. 21 CFR § 520.606 - "Do not use in horses intended for human consumption."	Administered to some AIDS patients, but effects in humans largely unknown.
33.	**Diclofenac Sodium**	Surpass (topical) Arthritis treatment in humans and horses. 21 CFR § 524.590 - "Do not use for horses intended for human consumption." http://www.drugs.com/vet/surpass-	May cause hypertension, edema, or heart failure. Some individuals with prior gastrointestinal disease may be hypersensitive to the drug's effects. Potential kidney failure and danger for patients with renal disease. May cause anaphylactic reactions; may harm fetus in utero. Maycause liver problems. May cause anemia and affect blood. May cause abdominal pain, constipation, diarrhea, dyspepsia, flatulence, gross bleeding/perforation, heartburn, nausea and vomiting, gastrointestinal ulcers, renal function abnormalities, anemia, dizziness, edema, elevated liver enzymes. http://www.pdr.net/search/searchResult.aspx?searchCriteria=Diclofenac+Sodium

	Drug	Product/Type/Warnings	Potential problems from human ingestion of residue or metabolites
		topical-cream.html	
34.	**Diflubenzuron**	Equitrol II Fly control http://www.drugs.com/vet/equitrol-ii-feed-thru-fly-control.html	May cause anemia.
35.	**Dimethylsulfoxide**	Topical application for sprains, soreness; may also be injected or combined with other drugs for administration. Limited treatment use in humans -- used as a topical application to reduce acute swelling due to trauma. 21 CFR § 524.660a - Dimethyl sulfoxide solution - "Not for use in horses and dogs intended for breeding purposes nor in horses slaughtered for food." 21 CFR § 524.660b - Dimethyl sulfoxide gel - "Do not use in horses and dogs intended for breeding purposes or in horses slaughtered for food." http://www.webmd.com/vitamins-supplements/ingredientmono-874-DMSO%20(DIMETHYLSULFOXIDE).aspx?activeIngredientId=874&activeIngredientName=DMSO%20(DIMETHYLSULFOXIDE)	May cause headache, dizziness, drowsiness, nausea, vomiting, diarrhea, constipation, breathing problems, vision problems, blood problems, and allergic reactions. Also may harm the liver and kidneys. http://www.webmd.com/vitamins-supplements/ingredientmono-874-DMSO%20(DIMETHYLSULFOXIDE).aspx?activeIngredientId=874&activeIngredientName=DMSO%20(DIMETHYLSULFOXIDE) MSDS available here: http://www.sciencelab.com/msds.php?msdsId=9927347
36.	**Dimetridazole** (generic)	Bactericidal Antibacterial	Withdrawn from European market because of dangers of gastrointestinal problems, potential for cancer. http://www.bioagrimix.com/msds/36/36280/3628007.pdf
37.	**Di-n-propyl isocinchomeronate**	Fly control products:	High toxicity – classified as a carcinogenic Pesticide Action Network (PAN) "Bad Actor".[1]

[1] "PAN Bad Actor pesticides" belong to a "most toxic" set of pesticides identified by the Pesticide Action Network and Californians for Pesticide Reform (CPR). These pesticides are at least one of the following: known or probable carcinogens, as designated by the International Agency for Research on Cancer (IARC), U.S. EPA, U.S. National Toxicology Program, and the state of California's Proposition 65 list; reproductive or developmental toxicants, as designated by the state of

	Drug	Product/Type/Warnings	Potential problems from human ingestion of residue or metabolites
		Flysect Super-7 repellent spray Flysect Super-C Mosquito Halt http://www.drugs.com/vet/flysect-super-7.html http://msds.farnam.com/m000811.htm http://www.drugs.com/vet/flysect-super-c.html http://www.drugs.com/vet/mosquito-halt-repellent-spray-for-horses.html	www.pesticideinfo.org/Detail_Chemical.jsp?Rec_id=PC2798
38.	**Dipropyl isocinchomeronate**	Farnam Roll-On Repellent (fly spray) http://msds.farnam.com/m000018.htm	High toxicity – PAN Bad Actor. Carcinogenic. www.pesticideinfo.org/Detail_Chemical.jsp?Rec_id=PC2798
39.	**Domperidone**	In horses, used for treatment of toxicity from fescue grass that affects pregnancies. In humans, used to increase bowel contractions and combat nausea and vomiting caused by other drugs. 21 CFR § 520.766 - "Do not use in horses intended for human consumption." http://www.fda.gov/AnimalVeterinary/SafetyHealth/ProductSafetyInformation/ucm235691.htm	FDA has warned that this drug passes into breast milk and should not be used in nursing human mothers. Side effects include dizziness, dry mouth, nervousness, flushing, irritability, insomnia, stomach cramps, hot flashes and leg cramps, chest pain, slow/fast/irregular heartbeat, swelling of the feet or ankles, difficulty urinating, swelling of the breasts or discharge from the nipple in men or women, menstrual changes, sexual difficulties. May affect absorption and action of other drugs, and interact with other drugs. http://www.medicinenet.com/domperidone-oral/article.htm
40.	**Doxycycline**	Antibiotic for horses and humans. http://www.drugs.com/cdi/doxycycline-capsules.html	Dangerous for pregnant women; may cause tooth problems, gastrointestinal symptoms, autoimmune syndrome, renal problems.

California's Proposition 65 list; neurotoxic cholinesterase inhibitors, as designated by California Department of Pesticide Regulation, the Materials Safety Data Sheet for the particular chemical, or PAN staff evaluation of chemical structure (for organophosphorus compounds); known groundwater contaminants, as designated by the state of California (for actively registered pesticides) or from historic groundwater monitoring records (for banned pesticides); pesticides with high acute toxicity, as designated by the World Health Organization (WHO), the U.S. EPA, or the U.S. National Toxicology Program.

	Drug	Product/Type/Warnings	Potential problems from human ingestion of residue or metabolites
41.	**Doxylamine succinate**	Antihistamine Anticholinargic 21 CFR 520.784 - "Not for use in horses intended for food."	Not to be combined with other antihistamines. Can cause multiple adverse side effects.
42.	**Equine Influenza vaccine**	Killed virus vaccine	Not intended for human use and no testing on human ingestion of this vaccine.
43.	**Equine Rhinopneumonitis – Influenza vaccine**	Killed virus vaccine Prestige II with Havlogen (vaccine) http://intervetus.naccvp.com/?m=product_view&id=1047348	Not intended for human use and no testing on human ingestion of this vaccine.
44.	**Estradiol**	Female hormone for management of reproductive functions in horses, and for relief of menopausal symptoms in humans Estradiol Cypionate in Oil Estradiol enanthate; Estradiol benzoate	Risk of cancer is among the multiple potential negative side effects related to the unapproved and uncontrolled use of this synthetic female hormone. Other side effects include headaches, dizziness, breast pain, increased risk for yeast infections, flu-like symptoms, arthritic pain, hair loss, gastrointestinal problems including nausea or vomiting, and incidences of spotting in between periods or other menstrual irregularities. May be unsafe for people with blood disorders, heart disease, obesity, seizure disorders or certain allergies.
45.	**Eucalyptus Oil**	Scarlet Oil Wound Dressing http://www.drugs.com/vet/scarlet-oil.html Labeled "Not for use on animals intended for food."	Potential side effects include seizures, poisoning, drowsiness, morbidity in children, central nervous system, depression.
46.	**Fenbendazole**	Dewormer (Panacur) Equi-bits Panacur Paste Panacur Power Pac Panacur Suspension Safe-Guard Safe-Guard Power-Dose 21 CFR § 520.905a - "Do not use in horses intended	No human formulation, and adverse effects on humans who eat this dewormer, that directly affects the gastrointestinal tract, are unknown.

	Drug	Product/Type/Warnings	Potential problems from human ingestion of residue or metabolites
		for human consumption."	
47.	**Firocoxib**	Equioxx Non-steroidal anti-inflammatory drug (NSAID). 21 CFR § 520.930; 522.930 - Firocoxib paste. - "Do not use in horses intended for human consumption." http://www.equioxx.com/	There is no approved use of this drug for humans and so any adverse effects on humans who ingest this drug are completely unknown. Firocoxib is one of the NSAIDs, all of which have extensive potential adverse side effects in humans including cardiovascular, gastrointestinal, kidney and eye problems. The NSAIDs can be dangerous for individuals with blood disorders. They are also contraindicated during pregnancy. They also present significant risk for people with a history of ulcers or gastrointestinal bleeding. Can cause nausea, abdominal pain, diarrhea, headaches, excitability, and nervous system problems.
48.	**Flunixin**	NSAID: Banamine (solution or paste) (pain killer) Flunazine injectable Flu-nix D injection Flunixamine 21 CFR § 520.970 - Granules - "Do not use in horses intended for human consumption." 21 CFR § 522.970 - Injectible - "Do not use in horses intended for human consumption."	Flunixin is one of the NSAIDs, all of which have extensive potential adverse side effects in humans including cardiovascular, gastrointestinal, kidney and eye problems. The NSAIDs can be dangerous for individuals with blood disorders. They are also contraindicated during pregnancy. They also present significant risk for people with a history of ulcers or gastrointestinal bleeding. Can cause nausea, abdominal pain, diarrhea, headaches, excitability, and nervous system problems.
49.	**Flunixin Meglumine**	NSAID: Flunazine injectable Flu-nix D injection Flunixamine Labeled: Not for use in horses intended for food. http://www.drugs.com/vet/flunixin-meglumine-injection.html http://www.drugs.com/vet/flunazine-injectable-solution.html http://www.drugs.com/vet/flu-nix-d-	This is also one of the NSAIDs, all of which have extensive potential adverse side effects in humans including cardiovascular, gastrointestinal, kidney and eye problems. The NSAIDs can be dangerous for individuals with blood disorders. They are also contraindicated during pregnancy. They also present significant risk for people with a history of ulcers or gastrointestinal bleeding. Can cause nausea, abdominal pain, diarrhea, headaches, excitability, and nervous system problems.

	Drug	Product/Type/Warnings	Potential problems from human ingestion of residue or metabolites
		ivx.html http://www.drugs.com/vet/flunixamine.html	
50.	**Furaltadone**	Antibacterial http://www.chemblink.com/MSDS/MSDSFiles/139-91-3_Sigma-Aldrich.pdf	May cause cancer in humans, but very little known about effect on humans because the drug has not been tested on humans and the potential side effects upon ingestion are unknown.
51.	**Furazolidone**	Antibacterial: Furall Furox Aerosol Powder Used in humans as an anti-diarrheal 21 CFR § 524.1005 - "Not for use in horses intended for food." http://msds.farnam.com/m000394.htm http://www.drugs.com/vet/furazolidone-aerosol-powder.html Federal law prohibits the use of this product in food-producing animals.	Contains chemicals known to the state of California to cause cancer. Should only be taken under strict medical oversight; dangerous if taken with alcohol, when pregnant, or for individuals with certain blood disorders. Adverse effects include headache, stomach upset, nausea, vomiting, dizziness or weakness, fever, skin rash, itching, muscle aches, flushing, breathing trouble. This medication may cause the urine to turn brown in color.
52.	**Furosemide**	Diuretic: Lasix Used in humans and horses	May cause pancreatitis, jaundice, anorexia, paresthesias, ototoxicity, blood dyscrasias, dizziness, rash, urticaria, photosensitivity, fever, thrombophlebitis, restlessness. http://www.pdr.net/search/searchResult.aspx?searchCriteria=Furosemide
53.	**Gentamicin sulfate solution**	Antibiotic: Gentamicin solution Do not use for horses intended for human consumption. http://www.drugs.com/vet/gentamicin-sulfate-solution.html 21 CFR § 529.1044a - "Do not use in horses intended for human consumption."	Can cause severe hearing and kidney problems. May cause dizziness, vertigo, ringing in the ears, hearing loss, numbness, muscle twitching or weakness, difficulty breathing, decreased urination, rash, itching, or sore throat. Interaction and potential harm with other drugs can cause adverse reactions.
54.	**Gentian violet**	Blue-Kote	Usually used topically on humans. Unknown side effects upon ingestion.

	Drug	Product/Type/Warnings	Potential problems from human ingestion of residue or metabolites
		Topical ointment, antiseptic, protective wound dressing. Not for use on food producing animals. http://www.drugs.com/vet/dr-naylor-blu-kote.html http://www.drnaylor.com/index.php?option=com_content&task=blogcategory&id=20&Itemid=47 "Not for use on animals intended for food." http://www.horsesuppliesplus.com/antiseptics.html	
55.	**HCl**	Component of Dexium injection http://www.drugs.com/vet/dexium-injection.html	Very hazardous if touched; not fully tested on humans; may be fatal if inhaled or swallowed. Causes irritation and burning, ulceration, or perforation of the gastrointestinal tract and resultant peritonitis, gastric hemorrhage and infection. Can also cause nausea, vomiting (with "coffee ground" emesis), diarrhea, thirst, difficulty swallowing, salivation, chills, fever, uneasiness, shock, strictures and stenosis (esophogeal, gastric, pyloric). May affect behavior (excitement), the cardiovascular system (weak rapid pulse, tachycardia), respiration (shallow respiration), and urinary system (kidneys- renal failure, nephritis). Acute exposure via inhalation or ingestion can also cause erosion of tooth enamel.
56.	**Hyaluronate sodium**	Arthritis treatment Legend Legend injectable 21 CFR § 522.1145 - "Do not use in horses intended for human consumption." - "Not for use in horses intended for food." http://www.bayerdvm.com/products/legend/legend.cfm http://www.drugs.com/vet/legend-multi-dose-hyaluronate-sodium-injectable-solution.html	May cause gastrointestinal tract information with nausea and vomiting. It may affect blood (normocytic anemia, change in leukocyte count), metabolism, behavior (ataxia, convulsions), respiration (respiratory stimulation), and urinary system. The toxicological properties of this substance have not been fully investigated. http://www.sciencelab.com/msds.php?msdsId=9924276
57.	**Hyaluronic acid sodium salt**	Polyglycan	May cause gastrointestinal irritation, affect blood, metabolism and behavior. The dangers upon ingestion by humans has not been fully investigated.

	Drug	Product/Type/Warnings	Potential problems from human ingestion of residue or metabolites
		For use only as a surgical lavage in animals not intended for food use. http://www.medi-vet.com/Polyglycan.aspx Also used in race horses prior to a race.	
58.	**Hydroxyzine Pamoate**	Anti-anxiety in humans and preoperative sedation. Antihistamine, anti-itching and sedative in animals. http://www.drsfostersmith.com/product/prod_display.cfm?pcatid=20678	May impair mental and physical abilities in elderly, may potentiate other medications, and not for use by pregnant or nursing mothers. http://www.pdr.net/drugpages/concisemonograph.aspx?concise=1096
59.	**Hyoscine butylbromide**	Buscopan Scopolamine Antispasmodic; colic pain relief. http://www.drugs.com/vet/buscopan-sterile-solution-can.html	Potential adverse effects include blurred vision, severe allergic reactions, confusion, urinary problems, and mood changes. www.drugs.com/sfx/scopolamine-side-effects.html
60.	**Isoflurane**	Surgical anesthetic 21 CFR § 529.1186 - "Do not use in horses intended for human consumption."	MSDS reports no information on toxicity upon ingestion.
61.	**Isoparaffinic Petroleum Solvent**	Fly Control: Farnam Bronco Gold (spray) Farnam Wipe http://msds.farnam.com/m001650.htm http://msds.farnam.com/m000490.htm	Unknown human toxicity and side effects after ingestion.
62.	**Ivermectin**	Dewormers: Agri-mectin Paste Bimectin Paste Equell Paste	Can act for up to twelve months; carcinogenicity not studied; not recommended for pregnant women; distributes into breast milk. Adverse reactions include pruritus, edema, papular/pustular/frank urticarial rash, fever, axillary/cervical/inguinal lymphadenopathy, arthralgia/synovitis, limbitis, tachycardia, peripheral edema, leukopenia, eosinophilia

	Drug	Product/Type/Warnings	Potential problems from human ingestion of residue or metabolites
		Equimax Farnam Ivercare Horse Health Ivermectin Ivercare paste ProMetin E™ Paste Zimecterin Gold Zimecterin Paste Also found in human anthelmintic compounds 21 CFR § 520.1192 - Paste - "Do not use in horses intended for human consumption." 21 CFR § 1194 - Meal - "Do not use in horses intended for human consumption." 21 CFR § 1195 - Liquid - "Do not use in horses intended for human consumption." 21 CFR §1198 - Ivermectin and praziquantel paste - "Do not use in horses intended for human consumption." http://www.drugs.com/vet/agri-mectin-paste-1-87.html http://www.drugs.com/vet/agri-mectin-paste-1-87.html http://www.davisandlawrence.com/1-x-6-08-g.html http://www.horsehealthusa.com/details/Equell-Paste/37-105.html http://www.equimaxhorse.com/	http://www.pdr.net/search/searchResult.aspx?searchCriteria=ivermectin

	Drug	Product/Type/Warnings	Potential problems from human ingestion of residue or metabolites
63.	**Ketoprofen**	NSAID: Ketofen Used as NSAID in horses and humans. 21 CFR § 522.1225 - "Not for use in horses intended for food." http://www.drugs.com/vet/ketofen.html	Ketoprofen is one of the NSAIDs, all of which have extensive potential adverse side effects in humans including cardiovascular, gastrointestinal, kidney and eye problems. The NSAIDs can be dangerous for individuals with blood disorders. They are also contraindicated during pregnancy. They also present significant risk for people with a history of ulcers or gastrointestinal bleeding. Can cause nausea, abdominal pain, diarrhea, headaches, excitability, and nervous system problems.
64.	**Levothyroxine Sodium**	Thyro-L Thyroid replacement hormone. http://www.drugs.com/vet/thyro-l.html	This artificial thyroid hormone can exacerbate thyroid and hypertension problems in susceptible individuals. http://www.pdr.net/search/searchResult.aspx?searchCriteria=Levothyroxine+Sodium
65.	**Luprostiol**	For control of reproductive cycles and inducing termination of pregnancy. 21 USC § 522.1290 - solution - "Do not use in horses intended for human consumption." - "Labeling shall bear the following statements: Warning: Women of child-bearing age, asthmatics, and persons with bronchial and other respiratory problems should exercise extreme caution when handling this product. In the early states, women may be unaware of their pregnancies..."	Dangerous for children, pregnant and lactating mothers, individuals with respiratory problems. Can cause hormonal effects when taken.
66.	**Mepivacaine**	Anesthetic 21 CFR § 522.1372 - "Not for use in horses intended for human consumption."	Because this is an injectable drug, studies have not been done on the dangers of ingestion.
67.	**Methocarbamol**	Robaxin Muscle relaxant in animals and humans.	Potential adverse reactions include lightheadedness, dizziness, drowsiness, nausea, urticaria, pruritus, rash, conjunctivitis, nasal congestion, blurred vision, headache, fever, seizures, syncope, flushing. http://www.pdr.net/search/searchResult.aspx?searchCriteria=Methocarbamol

	Drug	Product/Type/Warnings	Potential problems from human ingestion of residue or metabolites
		http://www.petplace.com/drug-library/methocarbamol-robaxin-v/page1.aspx	
68.	**Methyl Salicylate**	Scarlet Oil Wound dressing for horses. Muscle and joint pain relief in humans. Not for use on animals intended for food. http://www.drugs.com/vet/scarlet-oil.html	"When ingested, the highly concentrated liquid methyl salicylate in the form of wintergreen oil, as with other volatile oils, can induce vomiting and is a notorious source for severe, often fatal poisonings." http://www.drugs.com/npp/wintergreen.html Dangerous if used in conjunction with other analgesics, anticoagulants, steroids, NSAIDs, alcohol, and diuretics. http://www.pdr.net/search/searchResult.aspx?searchCriteria=Methyl+Salicylate
69.	**Methylandrostenediol**	Methandriol Anabolic steroid Used as growth stimulator and steroid in horses and humans. http://www.drugs.com/international/methandriol.html	Can cause estrogenic (female hormone) and androgenic (male hormone) effects. Steroids should be taken under a doctor's supervision and have multiple significant adverse affects including severe allergic reactions, hormonal changes, changes in menstrual functions, mental and mood changes, respiratory problems, nausea and vomiting, joint swelling, vision changes, and unusual weight gain.
70.	**Methylprednisolone**	Human and horse steroid 21 CFR § 522.1410 - "Do not use in horses intended for human consumption."	Steroids should be taken under a doctor's supervision and have multiple significant adverse affects including severe allergic reactions, hormonal changes, changes in menstrual functions, mental and mood changes, respiratory problems, nausea and vomiting, joint swelling, vision changes, and unusual weight gain.
71.	**Metronidazole**	Antibiotic in humans and horses (Flagyl) http://www.wedgewoodpetrx.com/learning-center/professional-monographs/metronidazole-for-veterinary-use-ab.html	This drug can cause gastrointestinal problems, serious allergic reactions in sensitive individuals, flu-like symptoms, seizures, encephalopathy, aseptic meningitis, peripheral neuropathy, nausea and vomiting, headache, anorexia and neutropenia. http://www.pdr.net/search/searchResult.aspx?searchCriteria=Metronidazole
72.	**Moxidectin**	Quest Gel Quest Plus Antiparasitic (dewormers) Not for horses or ponies intended for human consumption. http://www.fda.gov/AnimalVeterinary/GuidanceComplianceEnforcement/	Very limited testing on humans – potential adverse effects still unknown.

	Drug	Product/Type/Warnings	Potential problems from human ingestion of residue or metabolites
		ComplianceEnforcement/ucm168782.htm 21 CFR § 520.1452; 520.1463 - Gel - "Not for use in horses and ponies intended for food." http://www.drugs.com/vet/quest-plus-equine-oral-gel.html	
73.	**N-(2-Ethylhexyl)-5-norbornene-2,3-dicarboximide**	Bug Block (fly control) http://absorbine.org/products/flycontrol/bug-block-insecticide-repellent http://www.statelinetack.com/ContentFiles/Associated_Content/absorbinebugblockMSDS.pdf	"Harmful if ingested." Bug Block fly control has multiple adverse effects if swallowed by humans. http://www.statelinetack.com/ContentFiles/Associated_Content/absorbinebugblockMSDS.pdf
74.	**N-acetyl-D-glucosamine 10%**	Polyglycan Post-surgical lavage of joint compartments. "Do not administer to animals that are to be slaughtered for food." www.arthrodynamic.com/polyglycan/	Ingredient in Polyglycan, which includes warning: "For use only as a surgical lavage in animals not intended for food use." http://www.medi-vet.com/Polyglycan.aspx
75.	**Neomycin Sulfate**	Animax ointment Human and animal antimicrobial, anti-fungal steroid drug	May cause nausea and vomiting, diarrhea, malabsorption syndrome, nephrotoxicity, ototoxicity, neuromuscular blockage, neurotoxicity, fetal harm. Especially dangerous for individuals with certain diseases of the muscles. http://www.pdr.net/drugpages/concisemonograph.aspx?concise=3174
76.	**Nitrofurantoin**	Equifur Antibacterial for urinary tract infections in horses and humans. This drug is not to be administered to horses that are to be slaughtered for use in food. http://www.drugs.com/vet/equifur-can.html	Adverse effects include hypersensitivity reactions, pulmonary/hepatic/psychotic reactions, peripheral neuropathy, nausea and vomiting, anorexia, dizziness, exfoliative dermatitis, anaphylaxis, hematologic abnormalities, cyanosis, angioedema, asthenia. http://www.pdr.net/drugpages/concisemonograph.aspx?concise=383

	Drug	Product/Type/Warnings	Potential problems from human ingestion of residue or metabolites
77.	**Nitrofurazone**	Niderm Ointment Antibacterial ointment, burns, skin grafts. 21 CFR § 524.1580b - "Do not use in horses intended for human consumption." - "Federal law prohibits the use of this product in food-producing animals." Federal law prohibits the administration of this preparation to animals that produce food or that are intended for consumption as food. http://www.drugs.com/vet/niderm-ointment-can.html	Very toxic to humans. http://www.sciencelab.com/msds.php?msdsId=9926271
78.	**N-Octyl Bicycloheptene Dicarboximide**	Farnam Roll-On Repellent Fly spray http://msds.farnam.com/m000018.htm	According to the manufacturer, Farnam Roll-On Repellent is "harmful if swallowed."
79.	**Nystatin**	Antimicrobial, antifungal and steroid Animax ointment Mycostatin Bio-Statin For use in humans and horses with thrush.	Adverse reactions include oral irritation, sensitization, diarrhea, nausea and vomiting, gastrointestinal disturbances, rash, urticaria, Stevens-Johnson syndrome. http://www.pdr.net/search/searchResult.aspx?searchCriteria=Nystatin See also: http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0000767/ http://www.nlm.nih.gov/medlineplus/druginfo/meds/a682758.html
80.	**Omeprazole**	Treatment for ulcers in horses and humans. Gastrogard 21 CFR § 520.1615 - "Do not use in horses intended for human consumption." http://gastrogard.us.merial.com/faq.shtml	Adverse reactions include headache, diarrhea, abdominal pain, nausea and vomiting, fever, respiratory disorders, severe allergic reactions, irregular heartbeat, bruising and bleeding. http://www.pdr.net/search/searchResult.aspx?searchCriteria=Omeprazole
81.	**Oxibendazole**	Anthelcide dewormer	"Do not allow product to enter drinking water supplies, waste water or soil."

	Drug	Product/Type/Warnings	Potential problems from human ingestion of residue or metabolites
		21 CFR § 520.1638 - paste - "Not for use in horses intended for human consumption." 21 CFR § 520.1638 - Suspension - "Not for use in horses intended for human consumption." Not for use in horses intended for human consumption. http://www.drugs.com/vet/anthelcide-eq-equine-wormer-paste.html	http://www.seqchem.com/safetysheet.php?SQIndex=SRP012491o
82.	**Parachlorometaxylenol**	Scarlet Oil Not for use on animals intended for food. http://www.drugs.com/vet/scarlet-oil.html	May cause burning of mouth, throat and stomach, if ingested. http://surfactantsinc.com/pdf/Surcide%20PCMX-USP%20MSDS.pdf
83.	**Phenol**	Red-Kote Not for use on animals intended for food. http://www.drugs.com/vet/dr-naylor-red-kote.html	Phenol is considered to be quite toxic to humans via oral exposure. Anorexia, progressive weight loss, diarrhea, vertigo, salivation, a dark coloration of the urine, and blood and liver effects have been reported in chronically (long-term) exposed humans. Animal studies have reported reduced fetal body weights, growth retardation, and abnormal development in the offspring of animals exposed to phenol by the oral route. http://www.epa.gov/ttn/atw/hlthef/phenol.html
84.	**Phenylbutazone**	NSAID: Butazone 400 Butazone 1000 Butazone Concentrate Bute paste Butequine 21 USC §520.1770a - Tablets and boluses - Dogs and horses - "Do not use in horses intended for human consumption.." 21 USC § 522.1720	Serious and fatal adverse effects have been reported from ingestion of Phenylbutazone, including bone marrow suppression and aplastic anemia. Banned in America for human use. Nicholas Dodman, Nicolas Blondell, Ann M. Marini, "Association of phenylbutazone usage with horses bought for slaughter: A public health risk", FOOD AND CHEMICAL TOXICOLOGY 48 (2010) 1270–74. "Phenylbutazone is known to induce blood dyscrasias, including aplastic anemia, leukopenia, agranulocytosis, thrombocytopenia and deaths. Hypersensitivity reactions of the serum-sickness type have also been reported. In addition, phenylbutazone is a carcinogen, as determined by the National Toxicology Program." http://www.fda.gov/AnimalVeterinary/NewsEvents/CVMUpdates/ucm124078.htm Phenylbutazone is especially problematic for patients with a history of asthma attacks, hives, or other allergic reactions to aspirin or other NSAIDs. It also should be avoided by patients with peptic ulcer disease or poor kidney function, since this medication

	Drug	Product/Type/Warnings	Potential problems from human ingestion of residue or metabolites
		- Injection - Dogs and horses - "Not for use in animals intended for food." http://horsebackmagazine.com/hb/archives/13184 http://www.farmvet.com/pc-1500-163-bute-paste-12-gm.aspx http://www.drugs.com/vet/butequine-can.html http://tuesdayshorse.wordpress.com/tag/cfia/	can aggravate both conditions. Phenylbutazone is generally used with caution in patients taking blood thinning medications (anticoagulants), such as warfarin (Coumadin), because of an increased risk of bleeding. Patients taking lithium can develop toxic blood lithium levels. Additionally, patients taking cyclosporine (Sandimmune) can develop kidney toxicity.
85.	**Piperonyl Butoxide**	Repel-XP Fly control Do not use on horses intended for human consumption. http://www.drugs.com/vet/repel-xp-emulsifiable-fly-spray.html	Potential dangers to humans are unknown: "Data are not available from accidental poisonings, occupational exposures, or epidemiological studies regarding the reproductive and developmental toxicity of piperonyl butoxide." npic.orst.edu/factsheets/pbotech.pdf Ingestion can cause vomiting and diarrhea. Pesticide Action Network North America. Piperonyl Butoxide, http://www.pesticideinfo.org/Detail_Chemical.jsp?Rec_Id=PC33240 The EPA classifies piperonyl butoxide as a group C carcinogen, a possible human carcinogen. Environmental Protection Agency. Reregistration Eligibility Decision for Piperonyl Butoxide. (June 2006). http://www.epa.gov/opp00001/reregistration/REDs/piperonyl_red.pdf
86.	**Polysulfated Glycosaminoglycan**	Adequan Joint treatment. 21 USC § 522.1850 - "Do not use in horses intended for human consumption."	Data on human safety, pertaining to consumption of drug residues in food, were not required for approval of this supplemental new animal drug. The drug is approved for use only in horses that are not to be used for food and is to be labeled "'Not for use in horses intended for food.'" http://www.fda.gov/AnimalVeterinary/Products/ApprovedAnimalDrugProducts/FOIADrugSummaries/ucm054846.htm Based on the formulation of the drug, humans could develop anaphylaxis or excessive bleeding as the sulfated proteoglycans are anticoagulants.
87.	**Ponazuril**	Antiprotozoal Marquis paste; Marquis 21 CFR § 520.1855 - Horses only - "Not for use in horses intended	Unknown side effects and adverse reactions in humans ingesting Ponazuril. "Data on human safety, pertaining to consumption of drug residues in food, were not required for approval of this supplemental new animal drug. The drug is approved for use only in horses that are not to be used for food and is to be labeled 'Not for use in horses intended for food.'" Freedom of Information Summary, Original New Animal Drug Application, NADA

	Drug	Product/Type/Warnings	Potential problems from human ingestion of residue or metabolites
		for food." "Not for use in horses intended for food." http://www.drugs.com/vet/marquis-15-w-w-ponazuril-antiprotozoal-oral-paste.html	141-188 (Marquis), www.fda.gov/downloads/AnimalVeterinary/.../ucm117581.pdf
88.	**Prallethrin**	Insecticide Mosquito Halt Fly spray http://www.drugs.com/vet/mosquito-halt-repellent-spray-for-horses.html	Potential poisoning, headache, dizziness, nausea, and seizure. http://www.pesticideinfo.org/Detail_Chemical.jsp?Rec_Id=PC35755 "Pyrethroid ingestion gives rise within minutes to a sore throat, nausea, vomiting and abdominal pain. There may be mouth ulceration, increased secretions and/or dysphagia. Systemic effects occur 4-48 hours after exposure. Dizziness, headache and fatigue are common, and palpitations, chest tightness and blurred vision less frequent. Coma and convulsions are the principal life-threatening features. Most patients recover within 6 days. . . ." S.M. Bradberry *et al.*, *Poisoning Due to Pyrethroids*, Toxicol Rev. 24(2):93-106 (2005) (quoting abstract).
89.	**Praziquantel**	Dewormer For horses and humans Equimax Quest Plus Zimecterin Gold http://www.equimaxhorse.com/ http://www.drugs.com/vet/quest-plus-equine-oral-gel.html "Not for use in humans." (Zimecterin) http://www.zimecterin.com/ZimecterinGold/index.html?=50	Available by prescription only and to be taken only under the monitoring of a physician. Contraindicated for people with pre-exiting conditions involving the liver, kidney, or heart. Praziquantel may cause side effects including headache, dizziness, stomach pain, nausea, fever, itching, hives (especially serious). http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0000474/ http://www.rxlist.com/biltricide-drug/patient-images-side-effects.htm
90.	**Prednisone**	Human and horse steroid 21 USC § 522.1890 - Horses, dogs and cats - "Not for use in horses intended for human consumption."	Steroids should be taken under a doctor's supervision and have multiple significant adverse affects including severe allergic reactions, hormonal changes, changes in menstrual functions, mental and mood changes, respiratory problems, nausea and vomiting, joint swelling, vision changes, and unusual weight gain.
91.	**Prostaglandin**	Lutalyse solution Horse and human use – regulation of	Can cause unknown and unwanted hormonal effects, including termination of pregnancy, to individuals who ingest without knowing.

	Drug	Product/Type/Warnings	Potential problems from human ingestion of residue or metabolites
		female reproduction and other uses. This drug is not to be administered to horses that are to be slaughtered for use in food. http://www.drugs.com/vet/lutalyse-sterile-solution-can.html	
92.	**Pseudoephedrine HCl**	Tri-Hist Granules Not for use in horses intended for food. http://www.drugs.com/vet/tri-hist-granules.html	Can cause central nervous stimulation, insomnia, anxiety, dizziness, blurred vision, colitis, and psychosis when combined with other drugs.
93.	**Pyrantel Pamoate**	Exodus Paste Dewormer 21 CFR § 520.2044 - Horses and ponies - "Do not use in horses intended for human consumption." 21 CFR § 520.2043 - Horses and ponies - "Do not use in horses intended for human consumption." http://www.drugs.com/vet/exodus-paste.html	Adverse reactions include abdominal cramps, nausea and vomiting, diarrhea, headache, dizziness. http://www.pdr.net/drugpages/concisemonograph.aspx?concise=2985
94.	**Pyridoxine HCl**	Liver 7 injection	Potential health effects after ingestion unknown. http://www.sciencelab.com/msds.php?msdsId=9924765
95.	**Pyrilamine Maleate USP**	Tri-Hist Granules Antihistamine (human and horse use) 21 CFR § 522.2063 - "Do not use in horses intended for food purposes." Not for use in horses intended for food. http://www.drugs.com/vet/tri-hist-granules.html	Many individuals with identified health conditions have hypersensitivities to antihistamines and the use of antihistamines is contraindicated in that portion of the population. http://www.drugs.com/pro/poly-hist-pd.html

	Drug	Product/Type/Warnings	Potential problems from human ingestion of residue or metabolites
96.	**Rabies vaccination**	Imovax Rabies Vaccine	The dangers of human ingestion are unknown.
97.	**Ractopamine hydrochloride**	Optaflexx 100 Premix Beta-agonist used for growth promotion purposes	A January 2012 article reported that ractopamine hydrochloride is "[f]ed to an estimated 60 to 80 percent of pigs in the United States, [and has] has sickened or killed more of them than any other livestock drug on the market." While the FDA has approved the drug for use in cows and pigs, many countries have banned it from food-producing animals, and the drug has never been tested on horses intended for human consumption. http://bottomline.msnbc.msn.com/_news/2012/01/25/10220221-dispute-over-drug-in-feed-limiting-us-meat-exports
98.	**Rhinopneumonitis vaccine**	5-way (vaccination) http://www.alpineanimal.net/page6263a3c5.html?inc=na	Unknown consequences for humans.
99.	**Ronidazole**	Antiprotozoal agent http://www.wedgewoodpetrx.com/items/ronidazole-capsule.html	Does not appear to have any human applications. Dangerous side effects in animals. Toxicity information and potential health effects are unknown. https://www.reagentworld.com/products/msds2.asp?proid_2=23072
100.	**Selenium**	Trace mineral supplement 21 USC § 522.2100 - "Do not use in horses intended for food."	Rare but potential side effects include nausea, vomiting, abdominal pain, hearing loss, fatigue, weight loss, muscle tenderness, heart failure, and allergic reactions.
101.	**Stanozolol**	Anabolic steroid Used in both animals and humans. 21 USC 522.2150 - "Not for use in horses intended for food." http://www.petplace.com/drug-library/stanozolol-winstrol/page1.aspx	Potential side effects of anabolic steroids are well-documented. Steroids should be taken under a doctor's supervision and have multiple significant adverse affects including severe allergic reactions, hormonal changes, changes in menstrual functions, mental and mood changes, respiratory problems, nausea and vomiting, joint swelling, vision changes, and unusual weight gain
102.	**Stilbenes**	Used in estrogen-related substances	Animals treated with these drugs are banned from meat production in the European Union. http://eur-lex.europa.eu/smartapi/cgi/sga_doc?smartapi!celexplus!prod!CELEXnumdoc&lg=EN&numdoc=32008L0097
103.	**Strangles vaccine (Streptococcus Equi vaccine)**	Vaccination for *streptococcus equi* http://www.aaep.org/strangles.htm Pinnacle I.N. (strangles)	Dangers of human ingestion unknown.

	Drug	Product/Type/Warnings	Potential problems from human ingestion of residue or metabolites
		http://www.drugs.com/vet/pinnacle-i-n.html	
104.	**Sucralfate**	Used to aid in healing gastrointestinal tract, ulcers, for humans and animals.	Adverse reactions include constipation, diarrhea, nausea and vomiting, pruritus, rash, dizziness, insomnia, back pain, headache, dry mouth, flatulence, gastric discomfort, indigestion, sleepiness. http://www.pdr.net/search/searchResult.aspx?searchCriteria=Sucralfate
105.	**Sulfadiazine**	Tribrissen (oral) 400 paste 21 CFR § 520.2215 - "Do not use in horses intended for human consumption." 21 CFR § 520.2260a - "Do not use in horses intended for human consumption." http://www.drugs.com/vet/tribrissen-400-oral-paste.html	Sulfadiazine has potential cross-sensitivity with other drugs in the same class. Some individuals will have blood cell destruction from the drug. It can also cause transient leukopenia, skin necrosis, skin discoloration, burning sensation, rash, interstitial nephritis, and other systemic reactions. http://www.pdr.net/search/searchResult.aspx?searchCriteria=Sulfadiazine
106.	**Sulfamethoxazole Trimethoprim**	Antibacterial Bactrim, Septra	While these drugs are approved for human use, unnecessary ingestion of antibiotics is medically contraindicated. Additionally, adverse reactions include nausea and vomiting, anorexia, allergic skin reactions (*e.g.*, rash, urticaria), agranulocytosis, aplastic anemia, hepatitis, renal failure, hyperkalemia, aseptic meningitis, arthralgia, convulsions, cough.
107.	**Sunscreens**	Components in various fly spray products http://www.horse.com/ContentFiles/Associated_Content/ultrashieldexlabel.pdf	While sunscreens are used by humans, there is no substantial literature or studies on ingestion of sunscreens or their byproducts and metabolites.
108.	**Testosterone enanthate**	Uni-Bol Male sex hormone http://www.drugs.com/vet/uni-bol-can.html	The ingestion of male hormones, when not medically indicated, can create hormonal imbalances. Additionally, use may cause dangerous reactions in hypersensitive individuals or those with other illnesses. Can increase prostate and other problems in elderly men. Can also cause hormone-mediated reactions, fluid and electrolyte disturbances, nausea, cholestatic jaundice, alterations in liver function, headache, and anxiety. It is also designated as "not for use" in nursing mothers. http://www.pdr.net/drugpages/concisemonograph.aspx?concise=2017
109.	**Thiamine HCl**	Included in liver 7 injection http://www.drugs.com/vet/liver-7-injection.html	Hazardous in case of ingestion. http://www.sciencelab.com/msds.php?msdsId=9925232

	Drug	Product/Type/Warnings	Potential problems from human ingestion of residue or metabolites
110.	**Thyrostats**	Thyroid-related growth promotion Antithyroid agents for the purpose of growth promotion	Animals treated with these drugs are banned from meat production in the European Union. http://eur-lex.europa.eu/smartapi/cgi/sga_doc?smartapi!celexplus!prod!CELEXnumdoc&lg=EN&numdoc=32008L0097.
111.	**Topazone Aerosol Powder**	Antibacterial Topazone Furox http://www.fda.gov/AnimalVeterinary/NewsEvents/CVMUpdates/ucm137145.htm	Contains chemicals known to the state of California to cause cancer. Should only be taken under strict medical oversight; dangerous if taken with alcohol, when pregnant, or for individuals with certain blood disorders. Adverse effects include headache, stomach upset, nausea, vomiting, dizziness or weakness, fever, skin rash, itching, muscle aches, flushing, breathing trouble. This medication may cause the urine to turn brown in color.
112.	**Triamcinolone Acetonide**	Component in Animax ointment Antimmicrobial, anti-fungal, steroid (for thrush treatment) 21 CFR § 520.2483 - tablets - "Do not use in horses intended for human consumption." 21 CFR § 522.2483 - Suspension - "Do not use in horses intended for human consumption."	Steroids should be taken under a doctor's supervision and have multiple significant adverse affects including severe allergic reactions, hormonal changes, changes in menstrual functions, mental and mood changes, respiratory problems, nausea and vomiting, joint swelling, vision changes, and unusual weight gain.
113.	**Trimethoprim**	Uniprim antibiotic Powder For treatment of *Streptococcus equi* ("Strangles") 21 CFR § 520.2611 - "Do not use in horses intended for human consumption." 21 CFR § 520.2613 - Trimethoprim and sulfadiazine powder - "Not for use in horses intended for food." "Do not use in horses intended for human consumption."	Trimethoprim is a strong antibiotic with multiple potential adverse reactions, adverse interactions with other drugs and hypersensitivities noted in individuals with various diseases and metabolic conditions. http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0000813/

	Drug	Product/Type/Warnings	Potential problems from human ingestion of residue or metabolites
		http://www.drugs.com/vet/tribrissen-400-oral-paste.html http://www.drugs.com/vet/uniprim-powder.html	
114.	**West Nile virus**	Recombitek West Nile Vaccine http://www.drugs.com/vet/recombitek-equine-west-nile-virus-can.html	This vaccine has only been approved for use in horses and no data exists with respect to the safety of humans eating it, or meat from animals who have received it.
115.	**Xylazine**	Sedative Anased 21 CFR § 522.2662 - "Not for use in horses intended for food. - "Do not use in domestic food-producing animals."	Xylazine poisoning causes hypotension, bradycardia, and respiratory depression. Ocular administration can cause sinus bradycardia, hypotension and decreased mental status. Velez LI, Shepherd G, Mills LD, Rivera W., *Systemic toxicity after an ocular exposure to xylazine hydrochloride,* J. EMERG. MED. 30(4):407-10 (2006).