



### Contact with other animals

A few diseases are transmitted to equids via other animal species. For example, one of the parasites that causes equine protozoal myeloencephalitis is acquired from the feces of opossums (41.9 percent of operations indicated that opossums had physical contact with resident equids<sup>1</sup> or their feed). Skunks, opossums, raccoons, deer, foxes, rabbits, coyotes, and bats each had contact with equids or their feed on over one-fourth of operations. Dogs and cats had direct contact with resident equids or their feed on 75.2 and 62.5 percent of operations, respectively. Other domestic species that had direct contact with resident equids or their feed included cattle and poultry (42.9 and 19.2 percent of operations, respectively). Being aware of any contact between equids and other animal species can help equid owners respond to a disease outbreak in a timely and effective manner.

### Feed and water management

Feed or water contaminated by outside sources present potential routes of infection for equids. Overall, 81.8 percent of operations stored grain/concentrate/complete feed for resident equids. More than 88.0 percent of these operations stored grain/concentrate/complete feed in a manner that prevented fecal contamination by mice, rats, domestic and wild birds, livestock, dogs, cats, or other animals.

The majority of operations (55.5 percent) used a well as their predominant water supply for equids, and 23.2 percent used a municipal water supply. Among the various water sources used on animal facilities, surface water—such as a pond, river, stream, or cistern—presents the greatest concern of disease exposure because of the difficulty of controlling the water quality of these sources; 16.0 percent of operations used surface water as the primary water source for equids.

### Insect control

Insect control is vital to the health of equids. Insects transmit disease agents, and large infestations of insects can weaken an equid's immune system. To control insects, the highest percentages of operations used repellents applied to equids (76.0 percent), water container emptied and refilled with fresh water at least weekly or had automatic waterer (58.7 percent), and frequent removal of manure and weeds from the operation (51.8 percent). Insecticides were applied in or

near equine housing areas on 36.8 percent of operations, and equine face masks were used on 32.6 percent of operations. Only 7.0 percent of operations used an insect control product in feed or as a feed through.

### Manure management

Effective manure management can limit fecal-oral contact among equids and other animals. Overall, 38.7 percent of operations disposed of manure by spreading it over land on the operation where no livestock grazed, while 39.2 percent of operations applied manure where livestock grazed. Some operations used more than one method of manure disposal. Another common practice for manure management was to allow manure to accumulate or let nature take care of it (35.4 percent of operations). This option can be viable if an operation has sufficient acreage. Other practices such as selling/giving away manure or hauling it to a landfill or other location were used by less than 20 percent of operations. Overall, 31.7 percent of operations composted equine manure on the operation. Composting manure may reduce disease risk by reducing flies and killing pathogens.

### Practices related to the introduction of new or visiting equids

Contact between resident equids and new or visiting equids is one way that disease agents are transmitted. Visiting equids or new additions<sup>2</sup> to the resident equine population can pose the risk of exposing resident equids to disease pathogens.

### Nonresident equids

Overall, 17.7 percent of operations had one or more nonresident equids that stayed on the operation for less than 30 days. For operations that had nonresident equids, the majority had fewer than 10 nonresident equids visit (figure 2). A higher percentage of operations in the Northeast region (7.5 percent) had 10 or more nonresident equids that stayed for less than 30 consecutive days compared with operations in the South Central and Southeast regions (2.9 and 3.5 percent, respectively) [figure 2].

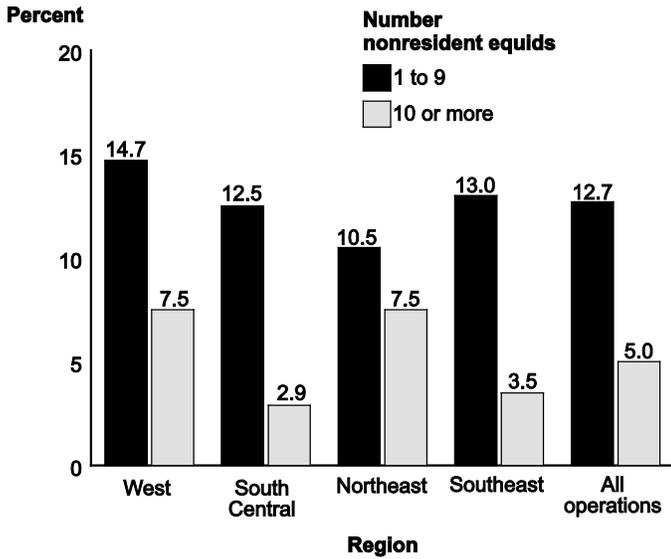
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<sup>1</sup>For this study, a resident equid was defined as an equid that spent or was expected to spend more time on the operation than on any other operation.

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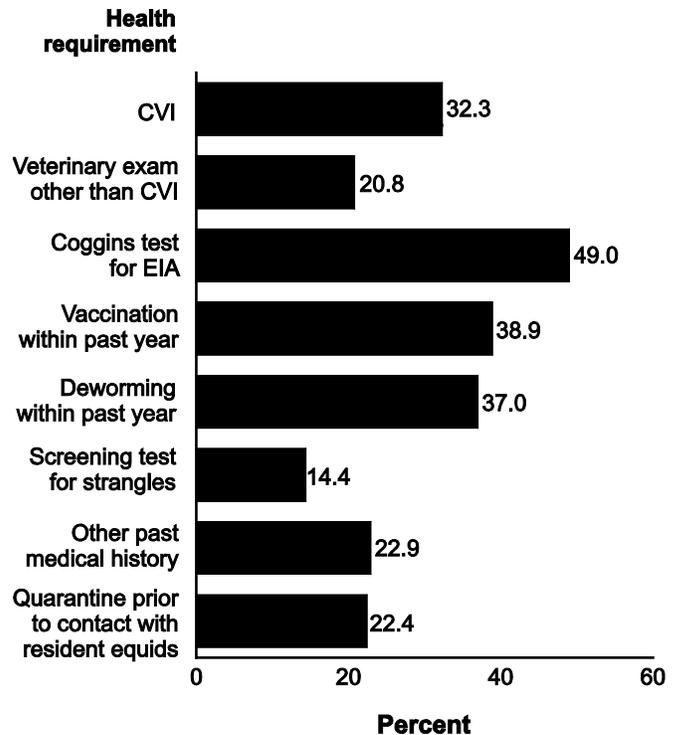
<sup>2</sup>A new resident equid was defined as a purchased animal, a new boarder, or other acquired equid considered to be a resident from the point of arrival.

**Figure 2. Percentage of operations by number of nonresident equids that stayed on the operation for less than 30 consecutive days, and by region**



Methods that reduce the risks that nonresident equids pose include evaluating the health status of nonresidents (e.g., exams, preventive treatments, and/or testing requirements), vaccinating and deworming, and quarantining or isolating nonresidents prior to contact with resident equids. For the 17.7 percent of all operations that had nonresident equids, 49.0 percent always or sometimes required that nonresident equids have a Coggins test for equine infectious anemia (EIA); 38.9 percent always or sometimes required vaccination within the past year; and 37.0 percent always or sometimes required deworming within the past year. Approximately one-third of operations with nonresident equids (32.3 percent) required a Certificate of Veterinary Inspection (CVI)—also known as an official health certificate—and 20.8 percent required a veterinary examination other than a CVI. A screening test for strangles or history of no occurrence in the previous 6 months was always or sometimes required by 14.4 percent of operations (figure 3).

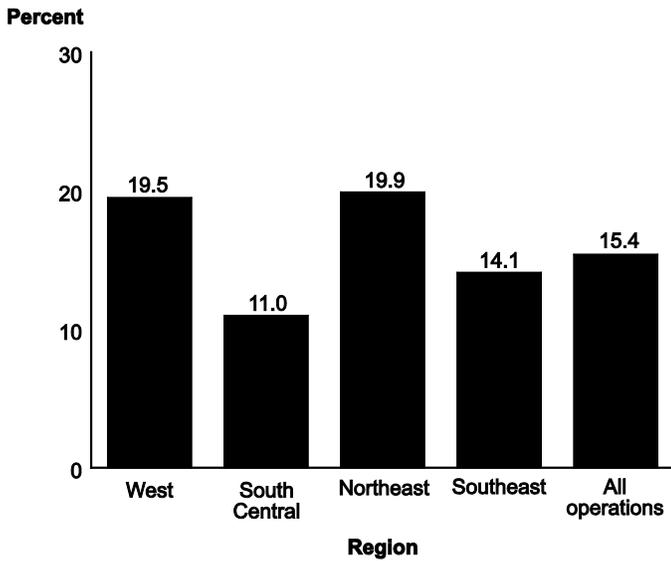
**Figure 3. For the 17.7 percent of operations that had nonresident equids that stayed for less than 30 consecutive days, percentage of operations that always or sometimes used the following health requirements for the majority of nonresident equids**



*New resident equids*

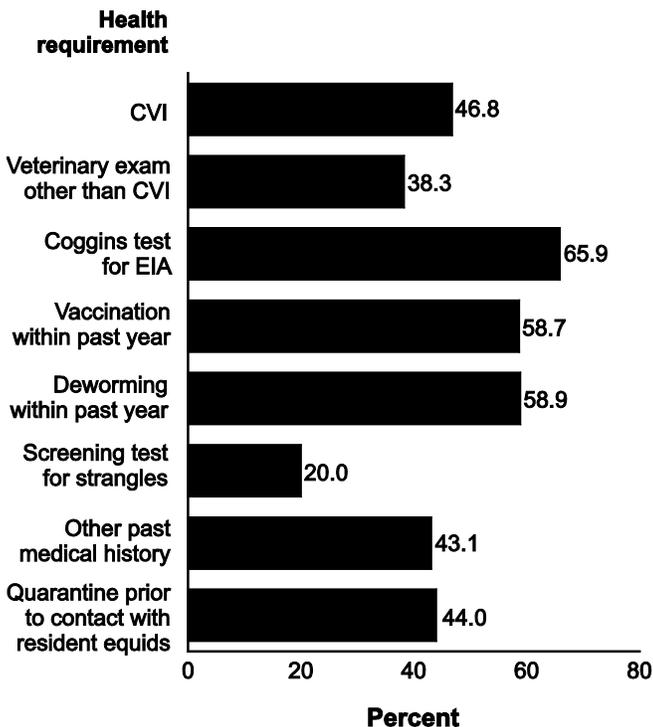
Overall, 15.4 percent of operations added resident equids in the 12 months before the study interview. Of new resident equids, 63.3 percent were obtained within State and 3.2 percent were obtained from outside the United States. The percentage of operations with newly added equids ranged from 11.0 percent in the South Central region to 19.9 percent in the Northeast region (figure 4).

**Figure 4. Percentage of operations that added new resident equids, by region**



For the 15.4 percent of operations that added new resident equids, the highest percentages always or sometimes required that new equids have a Coggins test for EIA, vaccination, and deworming (65.9, 58.7, and 58.9 percent of operations, respectively) [figure 5].

**Figure 5. For the 15.4 percent of operations that added new resident equids, percentage of operations that always or sometimes implemented the following health requirements for new resident equids**



## Practices related to contact with equids off the operation

Equids that leave the home operation and have contact with outside equids may be exposed to disease agents, and these agents may be introduced to the home operation when the equids return. Isolating returning equids is one way to prevent this type of disease introduction. Overall, 70.2 percent of operations had resident equids that left the home operation and returned. Just 7.2 percent of operations routinely isolated returning equids at the home operation; 2.8 percent isolated equids before returning them to the operation; and 28.0 percent isolated returning equids only for a cause such as disease or disease exposure.

## Summary

Biosecurity and biocontainment practices can reduce the risk of exposing equids to disease agents. Key points of a biosecurity plan are ascertaining the health status of new or returning equids, isolating new animals or returning animals at the home facility, supplying clean feed and water, controlling insects and ticks, limiting contact between equids and other animals, and implementing infection-control practices for visitors and personnel. Effective biosecurity practices lead to fewer health problems for animals, contribute to a longer and better quality life, and increase overall productivity by avoiding movement restrictions and reducing the use of animals during a disease occurrence.

For more information, contact:

USDA-APHIS-VS-CEAH-NAHMS  
 NRRC Building B, M.S. 2E7  
 2150 Centre Avenue  
 Fort Collins, CO 80526-8117  
 970.494.7000  
<http://www.aphis.usda.gov/nahms>  
 #727.0217

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