

Contraception of Wild Horses with PZP Immunocontraceptives
Frequently Asked Questions
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Q. What is the PZP immunocontraceptive vaccine, and how does it prevent pregnancy?

A. PZP (porcine zona pellucida) is a natural protein that surrounds the eggs of pigs. When PZP is injected into a female horse, she produces antibodies that attach to a similar protein that surrounds each of her own eggs. Once the antibodies attach, sperm can no longer reach the egg, and fertilization cannot occur.

Q. Who makes and distributes the PZP vaccine?

A. The PZP vaccine used to treat wild horses by the Bureau of Land Management (BLM), U.S. Forest Service (USFS), and National Park Service (NPS) is produced by The Science and Conservation Center (SCC) in Billings, Montana. It is distributed by The SCC in cooperation with The Humane Society of the United States (HSUS).

Q. How is PZP administered to horses?

A. PZP can be delivered to free-ranging wild horses by a dart fired from a dart gun, or it can be administered by hand through a syringe to horses confined in a chute. Because of the difficulty of finding and approaching horses on the open range, the Bureau of Land Management (BLM) typically administers PZP to horses gathered in roundups.

Q. How often do you have to give PZP?

A. PZP is administered to wild horses in different forms. One type of PZP vaccine must be given annually to be effective; another type maintains infertility for 2-3 years with a single shot.

Q. Can PZP make wild horses permanently sterile?

A. Long-term studies on Assateague Island, Maryland, show that mares regain fertility after receiving the PZP one-year treatment for up to five consecutive years. No data exist on whether successive treatments of the 2-3 year vaccine would cause a mare to become permanently sterile.

Q. Does PZP harm the wild horses in any way?

A. In 18 years of research, about 3,000 PZP treatments have been administered to wild horses. The only observed side effect is a small lump that sometimes appears temporarily at the injection site. PZP-treated females on Assateague Island actually live significantly longer than their untreated companions. Moreover, PZP vaccination does not disrupt pregnancy, and the foals of PZP-treated mothers are born healthy and fertile.

Q. Does PZP change wild horse behavior?

A. Although mares without foals of course behave differently than mares with foals, no one has yet observed behavior in PZP-treated mares that falls outside the spectrum of normal wild horse behavior. Births among mares regaining fertility after PZP treatments stop are no more or less seasonal than those of mares that have never been treated.

Q. Does PZP pass through the food chain?

A. No. Because PZP is a naturally occurring pig protein, it degrades quickly in the environment. If eaten, it is digested like any other protein.

Q. Will use of PZP drive wild horses to extinction?

A. No. At Assateague Island, where every horse in the herd can be found and treated, 11 years of intensive management use have reduced the population by only 10%. On western public lands, wild horses range over hundreds of square miles and some always escape rounding up. These horses breed, making it even more difficult to reduce population size. Nevertheless, PZP should be used on wild horses only under carefully constructed herd management plans.

Q. But if it's so hard to reduce wild horse herds with PZP, what's the point?

A. As a management tool, PZP will slow population growth, reduce the frequency of roundups, reduce the number of horses coming off the range, and reduce the number of animals put up for adoption. This will ease stress on horses, increase adoption quality, and improve the land.

Q. How much does PZP cost?

A. The 2-3 year PZP vaccine costs about \$200 per dose, plus the personnel costs of administration -- which are minor if horses are being gathered anyway. Compared with the \$1100 - \$1600 it takes to gather, remove, transport, hold, and adopt a horse (or care for it indefinitely!), PZP is a bargain.

Q. Is PZP being used to manage any federal wild horse herds now?

A. PZP is incorporated into wild horse management plans at Assateague Island and Cape Lookout National Seashores (administered by the NPS), and in nearly a dozen BLM wild horse management areas.

Q. Does giving PZP to wild horses make them less wild? Why can't you just leave them alone?

A. In a wild landscape, unscarred by a century and a half of livestock overgrazing and untroubled by droughts amplified by human disturbance, it might be ethical and humane just to let wild horses live their lives. In the West as it is, however, wild horses left totally unmanaged would suffer periodic mass starvation, and in some spots would further damage the now-fragile landscape. By limiting reproduction, PZP offers a gentle alternative to those outcomes.