

Q. What is PZP (Zona Stat-H) and how does it work to block fertilization?

A. All mammalian eggs are surrounded by a layer known as the Zona Pellucida. The Zona Pellucida contains specific proteins acting as the sperm receptor, the primary binding sites of sperm during fertilization.

PZP vaccine is derived from the zona pellucida of pig eggs. When the vaccine is injected into the muscle of the target animal it triggers an immune response. The antibodies produced as part of this response bind to the sperm receptors on the zona pellucida of the female's own ovulated egg, distorting their shape. This process blocks the process of sperm binding, thus preventing fertilization.

There is no cross reactivity with any other tissues in the female's body with the Zona Stat vaccine.

Zona Stat has been shown, thus far, to be a promising form of contraception in Wild Horses due to these facts:

- Approximately 90% of vaccinated animals will not conceive
- The vaccine can be delivered remotely using small darts
- The contraceptive effects are reversible
- There are no serious health effects, even after repeated treatments
- There are no effects on social behaviours
- The vaccine does not pass through the food chain
- The vaccine is safe to use on pregnant animals and will not harm the fetus if a pregnant animal is vaccinated

Q. Does PZP (Zona Stat-H) harm wild horses and will it eliminate entire herds?

A. Over 20 years of data, studies by the FDA (Food and Drug Administration), HSUS (Humane Society of the United States), and papers published in scientific peer reviewed journals clearly demonstrate a high degree of safety, efficacy and absence of long term behavioural, physical or physiological effects from the vaccine.

PZP is designed to achieve short term infertility and is reversible. Only consecutive use on an individual for 5 or more consecutive years will risk sterility. Elimination of entire herds would therefore be an insignificant risk, and zero risk where proper management and record systems are used to control its application as is mandated by the HSUS.

PZP reduces the need for captures/culling, thereby preserving the gene pools of individual herds.

Q. How is PZP (Zona Stat-H) made, and who manufactures it?

A. The Zona Stat-H vaccine is manufactured by the Science and Conservation Center in Billings, MT.

Each batch of Zona Stat-H is subjected to a quantitative and qualitative quality control program. Porcine ovaries are collected as a by-product of the pork processing industry.

Q. How is PZP (Zona Stat-H) obtained?

A. Zona Stat-H is not available commercially. Only after necessary training, authorizations and approvals have been obtained can it be ordered from the Science and Conservation Center.

Q. What wild horse populations are currently managed with PZP (Zona Stat-H)?

A. The vaccine has been used successfully to manage the wild horse populations of:

Assateague Island National Seashore, Cape Lookout National Seashore, Carrot Island, Rachel Carson National Estuarine Reserve, many areas in Nevada under management of the BLM (Bureau of Land Management), Return to Freedom (American Wild Horse Sanctuary), Lompoc, California; Pryor Mountain Wild Horse Range, Montana/Wyoming; Little Book Cliffs National Wild Horse Range, Colorado; McCullough Peaks Horse Management Area, Wyoming; Little Cumberland Island, Georgia; International Society for the Protection of Mustangs and Burros Wild Horse Sanctuary, Hot Springs, SD; Carson National Forest, NM; and the Navaho and Pima/Maricopa Indian reservations. In Nevada and Wyoming, at least 25 different wild horse herds are being treated.

In addition to controlling the horse population on Assateague Island, treatment has extended the lives and improved the health condition of older mares, by removing the stresses of pregnancy and lactation.

Q. How is the Vaccine delivered?

A. The PZP (Zona Stat-H) vaccine must be injected into the muscle of the target animal. For our purposes this is done by remote darting. The process is similar to vaccinating your horse with any intramuscular vaccine, in fact; although slightly larger in diameter, the needle is shorter than what would come with your horse's 4 way vaccine.

Q. Isn't darting mares painful and potentially harmful or even lethal? What if mares are inadvertently hit in critical anatomical areas-abdomen or chest?

A. As long as only 1.0cc Pneu-Darts are used, there is almost no risk of injury to the animal. These darts are very small and light. Over a 22 year period, no horse has ever been injured on Assateague Island, the Shackelford Banks, Carrot Island, the Pryor Mountains, or the Little Book Cliffs (translating to well over 1000 dartings).

Q. Will PZP (Zona Stat-H) harm mares or foals, physiologically? Are any benefits derived from its use?

A. Safety data accumulated over 20 years essentially says there are no short, or long term health problems of any kind, and that the vaccine is reversible, unless the mare is treated for more than 5 consecutive years. The data make clear that pregnancies in progress are not affected in any way by the vaccine, nor is the health or fertility of the foals compromised, once they are born.

Mares vaccinated on Assateague Island are living longer than ever and their mortality is decreased. Foal mortality has also dropped significantly. This is probably because their mothers are much healthier when they do return to fertility.

The most obvious benefit is that every mare prevented from being removed, by virtue of contraception, is a mare that will only be delaying her reproduction rather than being eliminated permanently from the range. This preserves herd genetics, while round ups and adoption do not.

Q. Does PZP (Zona Stat-H) application create late foaling in treated populations?

A. No. Available data from 20 years of application to wild horses contradicts this claim. Late foaling is more likely a consequence of delayed cyclicity and fertilization from mares suffering poor body condition after harsh winter or drought conditions. Late foaling is seen to occur naturally in our wild horse populations, having never been treated with PZP.

Q. How effective is PZP (Zona Stat-H)?

A. PZP treatment in wild horses is about 95% effective.

Q. What about compensatory reproduction in PZP (Zona Stat-H) treated herds?

A. After 24 years of PZP treatment, there is no evidence for compensatory reproduction in a PZP treated herd. This is, however, a concern with random capture and culling activities.

Q. What is SPAYVAC, and how does it differ from native PZP (Zona Stat-H)?

A. SpayVac is a proprietary product produced by a company in Canada. The active ingredient is PZP, but it is 'packaged' differently. The PZP is wrapped up in layers of fat referred to chemically as multilayer liposomes. In some manner, this imparts a longer contraceptive action from a single inoculation, which is a clear advantage of native PZP. However, if rapid recovery of fertility is desired, this becomes a liability. Also, this form of the vaccine cannot be delivered remotely, which limits its use to situations to where a 'hands on' approach can be achieved.

Q. Is Wild Horse behaviour affected by PZP (Zona Stat-H) use?

A. After 24 years of treating the Assateague Island mares, there is no evidence of altering behaviours.

Q. Why are some wild horse advocacy groups so vehemently opposed to PZP? It seems like the perfect solution.

A. All wild horse advocates want horses to have a better life. But if this entails a choice between 130 healthy horses vs 200 at risk of capture/cull or starvation in a severe winter, some would choose the 130 healthy horse option, out of concern for the well-being of the horses.

Pro-PZP individuals and groups believe that the primary motivation behind wild horse contraception is keeping healthy horses in the wild, on the land forever, in as natural a state as possible, with minimal interference from humans.

Many of the opponents dislike PZP because they fear it will reduce the herds to lower numbers than they want, even though they risk capture and cull as the only other realistic alternative.

After 24 years of contraception on Assateague Island, to date, there has been no need for gathers. The population remains controlled with a stable population growth. So, there is little danger of massive reductions happening anywhere.

Perhaps the greatest cause for opposition to PZP is the failure of advocacy groups to understand that there are only two choices for wild horse management- capture/culling or fertility control. There are no other choices.

Q. Aren't you trying to bring wild horses to extinction using PZP?

A. No. Assateague Island data has proven the safety and efficacy of the vaccine and it's obvious that we have a much harder topography in the foothills of the Rocky Mountains, for which to locate and inoculate horses. The HSUS condemns any attempt to use PZP for decreasing populations to threatened levels.