

PZP-22. . Do unintended side-effects outweigh benefits?

Ginger Kathrens
Volunteer Executive Director
The Cloud Foundation, Inc.
Natural History Filmmaker
August 10, 2010

The BLM is instigating an aggressive immunocontraceptive campaign designed to suppress the growth rate of wild horse herds in the American West. This initiative is supported by Secretary of the Interior Salazar and has been spear-headed by the Humane Society of the United States (HSUS) who must first give their approval before BLM can administer these experimental drugs to wild horse mares.

Because it renders wild horse mares infertile for roughly 22 months, the drug is called PZP-22. It must be administered, for now, by a hand injection rather than a remotely delivered field dart. The mustang mares must be rounded up to receive the drug. If PZP-22 performs as intended the mare will not conceive, in most cases for 22 months beginning the year after she is given the shot. However, during that roughly two-year period, she will cycle monthly, be bred by her band stallion, or a stallion strong enough to capture and breed her. But, she will not settle, and in another month, she will again come back into estrous.

Then, the cycle of breeding the mare and defending her from other stallions is repeated. This continues month after month through the spring, summer and fall seasons until the days shorten and the estrous cycle stops. In the lengthening days of late winter or early spring, the pattern begins again.

HSUS has stated that the drug will “stabilize” wild horse herd populations and has given the approval for the drug to be used 100% as far as I know. This approval has been given despite the fact that over 75% of wild horse herds are not even large enough to meet the minimum requirements for genetic viability. The minimum population size is generally accepted as 150 to 200 adult animals.

The use of an infertility drug in non-viable herds is cause for alarm, but add in the manipulation of the sex ratios by BLM and the situation is even more troubling. BLM is removing more females than males from nearly every wild herd in the west. The natural 50-50 or so percentage of males to females is being artificially manipulated to 60% males and 40% females. There is one herd in Utah that will be skewed to 70% males versus 30% females if you can imagine that. Consider how potentially “destabilizing” this will be. Most wild horses live in family bands where one stallion has one or more mares that he defends and breeds. Mares that are PZPed will be bred, will not settle and will come into heat again in a month. The competition for each and every mare will be more intense because there are far more males than females. If there are small foals they could suffer the consequences of the social disruption due to this intentional meddling with the rules of nature.

Let me give you a case in point. In May, while Makendra Silverman and I were visiting Cloud's herd in the Pryor Mountains of Montana, a foal was born to the mare, Demure, and her band stallion, Sante Fe (whom you may remember from the most recent Cloud film, *Cloud: Challenge of the Stallions*). The foal was probably less than an hour old when we spotted her standing with her mother, her father, and her grandmother. The four-some were nestled into a forested ridge about 200 yards away.

As we hiked closer, we noticed that the foal was having trouble walking. One front leg would cross over the other front leg and she would trip herself and crumple to the ground. This happened time after time and she would fall in a heap. Then Sante Fe jerked his head to attention and walked by the brown lump that was his newborn daughter. He had reacted to the sound of another band coming. We lost sight of him through the trees, but could hear the characteristic screams of the stallions and knew there was a ritual greeting taking place. Sante Fe was warning another stallion to stay away. In a little while he returned to stand near his family protectively. We waited, but the filly lay very still and I couldn't stand to watch any longer. I got up and walked away, convinced she would not live, and too heartsick to watch her die. Incidentally, when we left, we walked in the direction Sante Fe had come from and found his old friend Cloud with his family. It was Cloud that Sante Fe had warned to stay away.

By the end of the day, I knew I had to go look for Sante Fe's band, expecting to find the lifeless body of the little filly. Instead we found her quite alive—crippled to be sure, but alive. Her close-knit family surrounded her. I wished her good luck, realizing that if she could not walk, she might be left behind.

Two weeks later when we returned. The filly was still alive, very near the place where she was born. There had been a lot of rain and the giant puddle in the road was still full of water within 100 feet of where she stood. Luckily, there was no critical reason for the band to move too far as they had adequate water and ample forage. The foal's legs still hadn't straightened out, but they were much better. Makendra aptly named her *Can Do*.

By mid-July we were shocked to see her racing past her mother who trotted just to keep up. One knee was still bigger than the other, but the tight tendons of her right leg were stretching out and *Can Do* was finally experiencing the thrill of running. She dashed in circles on the wide, flower-strewn meadows below the scenic Dry Head Overlook in the Custer National Forest. The little filly with the big heart had survived because of her own iron will and the care of a nurturing mother who lived in a stable family band.

Can Do also had another advantage. She was born at the right time of the year when the temperatures were warming, the snow was melting and the long growing season was just beginning. Most hooved wild babies are born in the spring in North America when their environments can provide their mothers with the necessary nutrients to survive and produce enough milk for their newborns. That brings me to another point. It is believed that the one year drug is most likely to produce the best results when given in late winter and early spring, yet the majority of the wild mares receiving the drug are rounded up in the summer and fall. It is likely that the spike in out-of-season births (fall and even

winter) we saw in the Pryors to PZPed mares was due to the drug being given at the wrong time of the year. Remember that a round up is necessary to administer the new drug which is PZP-22. This presents a conundrum. If you have to round up the mares to administer the drug by a hand injection, how do you do this safely in late winter or early spring? The answer is, you cannot if the capture method is by helicopter. Mares due to foal or those with tiny foals cannot be stressed with the long runs inherent in helicopter roundups. We saw what happened just recently in Calico and Tuscarora.

Now place *Can Do* in the environment which the BLM is creating in other herds. Just consider what her chances might have been in a herd where there was an overabundance of sexually mature males with a small number of mares who were cycling every month. Perhaps she would have been born going into winter. What chance would a crippled foal have in a situation like this? Sante Fe would have been swamped with stallions trying to steal his mares. Anyone who has seen *Cloud: Challenge of the Stallions* knows what it is like when a group of males attacks one band stallion. *Can Do* would not have been able to run. She could not even walk. She would have had no chance. She might have been trampled or just left to die. Even her parent's survival chances would have been compromised due to the expenditure of body reserves used up in the competition between stallions for the few mares.

So, when is PZP-22 an acceptable alternative to population control in wild horse herd? Well, first of all you would need to have an over population of wild horses. That rules out at least 75% of the under populated and genetically non-viable herds. That leaves us with the big herds like Twin Peaks in California. The appropriate management level (AML) for the herd is 450 wild horses and a non-viable AML of 74 for burros in an area larger than the state of Rhode Island—1,250 square miles. On this same land, which is a designated wild horse herd area, BLM allows for over 10,000 head of cattle or over 20,000 head of sheep. Now, how's that for an equitable distribution of the forage on the range? Unfortunately this is the typical split. Welfare livestock get the lion's share.

Welfare livestock, that outnumber wild horses, in most cases by 10 to 1 and in some cases by as much as 100 to 1, cost American taxpayers hundreds of millions a year, some estimate the total costs at close to a billion dollars a year.

And they cost thousands of predators their lives. These predators, like mountain lions are killed because they might kill a domestic calf or lamb. It is a scientific fact that the big cats have kept the Montgomery Pass Wild Horse Herd in check for nearly 30 years—no roundups, no drugs, no management. In the Pryor Mountains where Cloud lives, the cats kept the herd at zero population growth for four years until the BLM stepped in to encourage the increased killing of the lions. Bottom line, if the goal is the nearly cost-free natural management of wild horse herd areas, mountain lions must be protected so that a nature crafted predator-prey relationship calls the shots—not us humans.

Having said all this, I believe there is a time and a place when PZP could be used if the parameters below were adhered to:

1. The drug can only be remotely delivered at the right time of the year.
2. The herd does not have a skewed sex ratio favoring males.
3. The herd is genetically viable (i.e. at least 200 adult breeding animals).

Meanwhile, here is what I would work on if I were a BLM wild horse manager:

- work with the Fish and Game folks to protect the mountain lions
- reduce the forage allocated to welfare livestock
- open up the fenced off water sources to all wildlife, including wild horses and burros
- remove the thousands of miles of fencing that limits the free-roaming behavior of wild horses and burros
- release the healthy wild horses in holding to the millions of acres taken away from them since Congress unanimously passed the Wild Horse and Burro Act.

So often, well intentioned humans can make unwise choices when it comes to the natural world, and this is what I fear is happening with the use of infertility drugs. I hope wild horse advocates, wildlife enthusiasts, humane organizations, public lands extractive users, and the BLM can have substantive, civil discussions on this issue. I look forward to the day when we all might work together to make a better home on the range for our beloved wild horses and burros.

Happy Trails!

Ginger Kathrens
Volunteer Executive Director
The Cloud Foundation, Inc.
A Colorado 501(c)3 charity
www.thecloudfoundation.org

-Ginger Kathrens has been studying and documenting wild horses in the west since 1994. Her three PBS programs about the life of the wild stallion, Cloud, as well as her three books, represent the only ongoing documentation of a wild animal from birth in our hemisphere. This revealing journey in the wild with the Pryor Wild Horse Herd has been compared to the work of Jane Goodall with Chimpanzees in Africa.

Ginger Kathrens