PGS Research

Questions and Answers

Has the BLM funded similar research in the past? What did that research produce?

An effective and long-lasting fertility-control agent has long been a goal for wild horse and burro managers. Over the past 35 years, several approaches – such as hormone implants, vaccines, vasectomies, and intrauterine devices – have been tried, but most were abandoned as ineffective or impractical at the time. The BLM has supported research on fertility-control options for wild horses since the 1980s, mostly invested in the development and assessment of the *porcine zona pellucida* (PZP) vaccines that are in use today. However, with an effectiveness of only 1-2 years, these vaccines have not had a substantial impact on overall population growth because it is not feasible to administer PZP every 1-2 years to tens of thousands of unapproachable horses on 32 million acres of rangeland. That is why the BLM is pursuing new research to develop better, longer-lasting fertility-control methods to slow the population growth rate and reduce the need to remove animals from the public lands.

While new tools are being developed, the BLM continues to use the currently available fertility-control tools where possible. Since 2012, the BLM has applied PZP to nearly 2,000 wild horses on the range. The BLM currently has PZP ground darting programs in six HMAs and is assessing opportunities to expand darting to HMAs where animals are more approachable and recognizable.

How were the research projects selected for funding?

The BLM released a request for applications to develop new wild horse and burro fertility-control tools and methods in 2014. To ensure that the most promising and effective research proposals were selected for funding, a panel of experts from the National Academy of Sciences reviewed the proposals and advised the BLM on the projects to pursue. The panel's recommendations were based on scientific validity; study design, goals and objectives; and qualification, expertise and experience of the investigators. The BLM will next negotiate agreements with the universities to carry out selected study proposals.

If BLM has supported similar research in the past, how are the new research projects going to be more productive?

Over the past 20 years, the BLM has focused on the development and evaluation of PZP-based contraceptive vaccines. This is the first time that a broad Request for Applications has been released to solicit proposals for the development of new or improved contraception vaccines and methods to spay or neuter wild horses and burros.

Molecular biology techniques have changed rapidly in the past ten years. By opening the door to new approaches, the BLM hopes to improve upon the fertility control tools currently available.

This includes permanent fertility control techniques that will give the BLM new options to manage wild horses and burros that were not considered in the past.

Are all research projects fully funded, or will funding depend on future appropriations?

The projects are fully funded and are not dependent on future appropriations. Continued funding of each project will depend on reaching identified milestones of achievement.

Did the NAS recommend fertility-control research?

In its 2013 report, the National Academy of Science (NAS) warned that the consequences of unchecked population growth of wild horses and burros include suffering and death from disease, dehydration, starvation and degradation of public lands. At the same time, the NAS found that no highly effective, easily delivered, and affordable fertility-control methods were currently available, and recommended further research into the effects of PZP-22, GonaCon and chemical vasectomies.

Two earlier reports from the DOI Office of the Inspector General (2010) and Government Accountability Office (2008) also evaluated the Wild Horse and Burro Program and recommended changes to reduce the need to care for horses in off-range pastures and corrals. The 2008 GAO report concluded that BLM needs alternatives to the expensive and unsustainable process of removing animals from the range and caring for unadopted animals in off-range corrals and pastures, while the 2010 OIG report recommended BLM focus on "research and testing of improved population control methods to balance wild horse and burro population growth with adoption demand, thereby minimizing the need for additional long-term holding facilities and preserves."

Is BLM considering permanent sterilization (i.e., spay and neuter) for wild horses on the range? Isn't that dangerous for the animals?

The BLM is developing a variety of tools and methods that local managers can use to best protect and manage the animals and the land. This includes evaluating the safety, feasibility, and effectiveness of spaying and neutering wild horses on-range where effective in order to control population size without the need to periodically gather and remove animals from public lands.

The BLM is committed to the safety and health of the nation's wild horses and burros. Research projects will begin with "pen trials" to safely evaluate methods, such as spaying, on a small number of animals in a controlled corral or pasture setting. If a pen trial yields promising results and does not appear to be unsafe for the animals, then a "field trial" will further evaluate some methods in the natural setting of a Herd Management Area.

Won't permanent sterilization reduce the genetic diversity of wild horses and lead to the extinction of some herds?

The BLM regularly monitors the genetics of wild horses as a management practice to identify herd management areas where there may be a concern about low genetic diversity so measures can be taken when needed to improve genetic diversity. In their 2013 report, the National Academy of Science found that the current levels of genetic diversity for most wild horse populations are similar to those in healthy mammalian populations, based on the genetic studies of 102 HMAs conducted between 2000 and 2012.

At this time, the BLM is pursuing research to evaluate safe methods to control population growth rates, including spaying and neutering wild horses. The BLM has not determined exactly how these methods would be used in the context of an overall management strategy and remains committed to the health of the nation's wild horses, including the genetic diversity in wild horse herds. Applying prescriptions for long-acting or permanent sterilants would include considerations of the potential genetic impacts of these management tools and ways to mitigate those potential impacts so that wild horse and burro genetic diversity will be maintained.

Why has the adoption rate recently dropped, and what is the BLM doing to increase adoptions?

The Wild Horse and Burro Adoption Program is an important part of BLM efforts to manage and protect the nation's wild horses. Unfortunately, adoption rates have slowed over the past 15 years, reaching a record low in 2014. At the same time, the BLM has increased its efforts to find homes for wild horses removed from the range, including a partnership with the Mustang Heritage Foundation, called *America's Mustang*. The America's Mustang campaign is an effort to educate the public about wild horses, where they are located, what they need and how we can all help to manage, care for or even adopt one for our own.

The BLM will continue to partner with state correctional agencies to increase the number of wild horses and burros trained through inmate training programs. The BLM is currently partnered with six correctional institutions to run inmate training programs, which help inmates gain valuable job and life skills while they train and gentle wild horses and burros. Trained animals are more readily adopted by the public.

The BLM is also planning to launch new market demand and analysis research that will determine where demand for adopting a wild horse exists and how best to meet that demand. A solicitation for research proposals was released in early 2015, and the BLM is currently evaluating the proposals for funding. The project is expected to take 1.5-2 years to complete.

Does this mean the BLM will stop using helicopter-assisted gathers to remove wild horses from the range?

The BLM is initiating new research to develop an array of more effective tools and methods for managing population growth on the range that in time will require fewer removals. However, helicopter-assisted gathers will continue to be an important part of the BLM management program in the near-term in order to control population growth, assist in research, and apply current fertility-control vaccines. According to the NAS, given the short duration of effect of the available contraceptives and the ability of one fertile stallion to impregnate many mares, BLM will need to continue to gather wild horses in order to deliver currently available fertility-control treatments to the animals.

The BLM helicopter-assisted gathers have proven to be humane, effective, and efficient compared with other types of methods when large numbers of animals need to be gathered over wide areas or rugged terrain. The BLM uses bait and water trapping for animal capture where it will be successful in areas that have limited water sources and forage as well as vehicular access.