



AZA Wildlife Contraception Center

## PORCINE ZONA PELLUCIDA (PZP) VACCINE

**Manufacturer** – Dr. Jay Kirkpatrick, Montana, USA

**Product information** – Derived from porcine zona pellucida, the PZP vaccine causes antibodies that prevent the attachment of sperm to ova and, thus, blocks fertilization. The Wildlife Contraception Center recommends its use in [artiodactyls](#), [perissodactyls](#), [pinnipeds](#), elephants and [bears](#) for:

- 1) short-term use (up to 3-4 consecutive years),
- 2) longer-term use in animals not essential for breeding programs, because of the possibility of reversal failure following long-term use,
- 3) animals requiring remote delivery of a contraceptive rather than hands on; remote delivery is possible with the 1.0cc volume.

**Adjuvant information** - The only adjuvant used with PZP is ***Freund's Modified adjuvant***, which ***DOES NOT CAUSE TB+ TEST RESULTS***, and injection site reactions are less than 0.05%. Following the initial treatments, boosters are required, using only ***Freund's Incomplete adjuvant***.

**Latency to effectiveness** – PZP is not effective until after at least 2 injections (typically given at 2-4 week intervals), depending upon species and adjuvant. There must be a ***minimum 2-week interval after the last injection*** before the male is placed with the female. The timing of booster inoculations is species-dependent and each institution will be advised regarding booster inoculation intervals (Dr. Jay Kirkpatrick or [Kim Frank](#)).

**Estrous cycles during contraceptive treatment** – PZP should not suppress estrous cycles and may extend the breeding season beyond what is considered typical, resulting in additional estrous cycles.

**Duration of efficacy and reversibility** – PZP becomes effective after initial inoculations, typically given at a 2-4 week interval, depending upon the species.

**Use during pregnancy** - Does not interrupt pregnancy or affect fetus.

**Use during lactation** - No known contraindications.

**Use in pre-pubertals or juveniles** - PZP-treated prepubertal white-tailed deer and feral horses were fertile as adults, but there are no data for other species.

**Consideration for seasonal breeders** - Because PZP is not effective until after at least 2, preferably 3, injections (typically given at 2-4 week intervals), depending upon

species and adjuvant, treatment should be initiated at least 2 months before the anticipated onset of the breeding season.

**Precautions** - In rabbits and possibly canids, PZP can cause depletion of oocytes and, in some primates, it can cause temporary cessation of estrous cycles. There are few data for carnivores, aside from pinnipeds and bears, and recent research with felids indicates that the antibodies will not cross-react with the sperm receptors. Therefore, its use in carnivores is recommended only for pinnipeds and bears. It is not effective in suids.

**Reporting requirements** - All institutions using PZP must submit a complete [Contraception Center Survey](#) to the AZA Wildlife Contraception Center. The Science and Conservation Center also has a separate form they need completed which can be obtained directly from Kim Frank.

**Request for purchase:** **Kim Frank**  
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