

Wild Horses and Fertility Control

Assateague Island National Seashore, Maryland, may have solved its predicament of what to do about its wild horses. Declared a desirable exotic species

in the park enabling legislation, wild horses also damage the fragile ecology of the park. Faced with the dilemma of how to control population numbers in a humane and publicly acceptable way, the park began contraception research in 1985. The outcome is a practical, relatively inexpensive, and publicly acceptable humane management tool that may have far-reaching use.

Researchers initially experimented with administering steroid hormones to reduce sperm count in males and prevent ovulation in females, but the technique did not show promise. Later, they inoculated 26 mares with an immunocontraceptive vaccine (porcine zonae pellucidae or PZP) that was 100% effective. The glycoprotein-based vaccine produces antibodies that block fertilization and did not interfere with pregnancies in progress or social organization. After 7 consecutive years of treatment, the only effects noted were failure to ovulate and depressed estrogen concentrations; in 120 mare-years of PZP contraception, only four foals have been born. The vaccine is easily delivered remotely and a single annual booster is adequate to continue contraception.

John Karish, NPS Chief Scientist of the Allegheny-Chesapeake System Support Office, is distributing copies of the report, *Management of Wild Horses by Fertility Control: The Assateague Experience* (NPS/NRASIS/NRSM-95/26), by Dr. Jay F. Kirkpatrick. Contact him at 209B Ferguson Building; University Park, PA 16802-4301; (814) 865-7974.