

Parnell® PROcept™ offers a new way to improve fertility¹

GONAbreed® (gonadorelin acetate) **estroPLAN®** (cloprostenol sodium)

Tech Bulletin #002

Parnell is committed to providing new and innovative ways to improve dairy herd fertility. That's why we developed Parnell® PROcept™, a new approach in fertility protocols. In a published peer reviewed clinical trial, Parnell PROcept protocol can improve fertility in cows treated with an additional dose of estroPLAN® (cloprostenol sodium) during the Ovsynch protocol.

A recent field study of 11 commercial dairies (over 2100 cows) showed that by implementing Parnell PROcept, pregnancies were significantly improved in second and third lactation cattle.

EFFECT OF A SECOND TREATMENT WITH ESTROPLAN DURING THE OVSYNCH PROTOCOL ON PREGNANCY PER AI.

Since 2013, Parnell has collaborated in an ongoing field study with dairy researchers at the University of Wisconsin–Madison comparing Ovsynch and Parnell PROcept.

This U.S. study was conducted with dairy veterinarians in selected dairy herds. In each herd, cows were enrolled and randomized into two treatment groups as follows:

1. Ovsynch (56-hour ovsynch with insemination 16 hours after the second GONAbreed®)
2. Parnell PROcept, incorporating an additional injection of estroPLAN, 24 hours after the first injection of estroPLAN

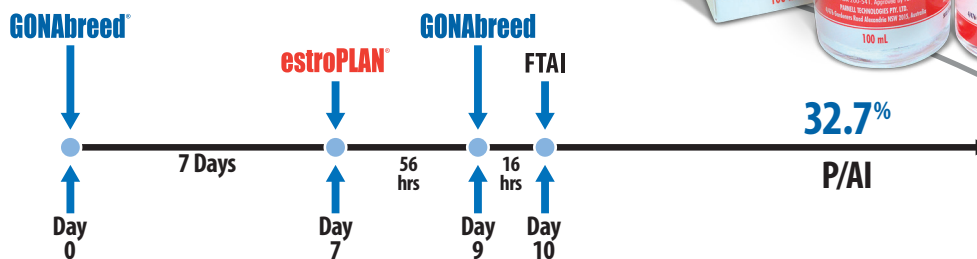
Pregnancy was determined using ultrasound.

New Parnell PROcept protocol can show a 14%* relative increase in pregnancies per timed AI.

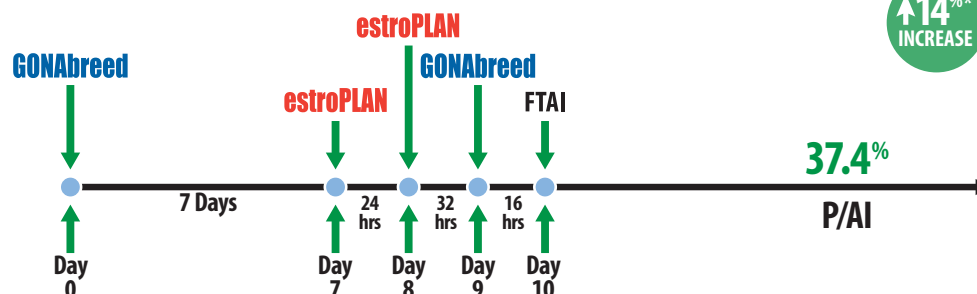


STUDY PROTOCOLS EVALUATED

Ovsynch



Parnell® PROcept™



**↑14%*
INCREASE**

* In 2nd and 3rd lactation cows only.

RESEARCH RESULTS

- In second and third lactation cows, the percentage of pregnancies per AI was 32.7% for the OVSynch protocol and 37.4% for the Parnell® PROcept™ protocol ($p = 0.047$).
- The percentage all cows with complete regression of the corpus luteum was 83% for the OVSynch protocol and 97% for the Parnell PROcept protocol ($p = 0.001$). In multiparous cows, the regression was 84.4% for OVSynch and 96.7% for Parnell PROcept ($p = 0.006$).
- In heifers and 4th lactation or greater cows, no significant improvement in pregnancies per timed AI was shown.

	One estroPLAN injection (OVSynch)	Two estroPLAN injection (PROcept)
Conception Rate	32.7%	37.4%

1 REFERENCE: Wiltbank M., Baez G., Cochrane F., Barletta R., Trayford C., Joseph R.: Effect of second treatment with prostaglandin $F_{2\alpha}$ during the OVSynch protocol on luteolysis and pregnancy in dairy cows. Journal of Dairy Science, 98:8644-9353.

For more information about Parnell PROcept, including reprints of the Journal of Dairy Science article on Parnell PROcept, please contact your Parnell Territory Manager or call 1-800-8PARNELL.



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(gonadorelin acetate)

estroPLAN®
(cloprostenol sodium)

PRECAUTIONS: FOR ANIMAL USE ONLY; NOT FOR HUMAN USE. KEEP OUT OF REACH OF CHILDREN. Women of child-bearing age, asthmatics and persons with bronchial and other respiratory problems should exercise extreme caution when handling this product. In the early stages, women may be unaware of their pregnancies. estroPLAN is readily absorbed through the skin and may cause abortion and/or bronchospasms: direct contact with the skin should therefore be avoided. Accidental spillage on the skin should be washed out immediately with soap and water.

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