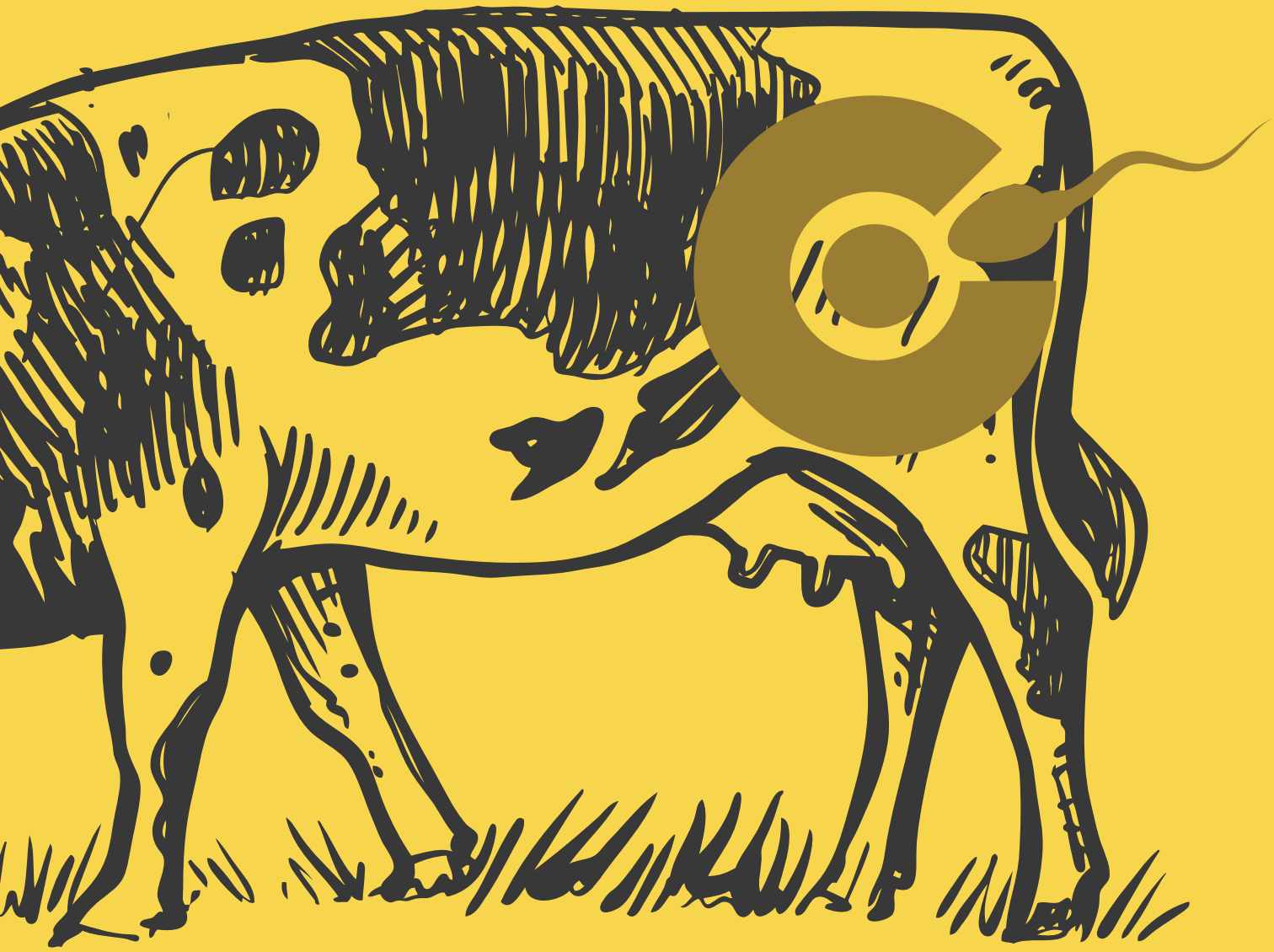
VeteCorH

Human chorionic gonadotropin (hCG)

Optimises ovulation and enhances luteotrophic effect



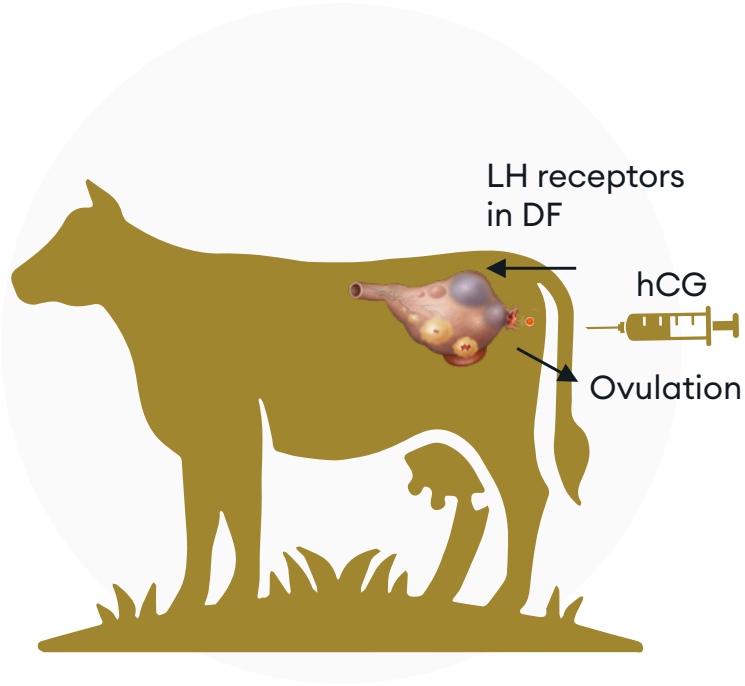
CALIER

VeteCorH contains human chorionic gonadotropin (hCG).

PHYSIOLOGY

hCG is a glycoprotein hormone produced by the human placenta. It acts independently of the pituitary gland and binds **directly to the LH receptors** of the granulosa cells **of the dominant follicle (DF) inducing ovulation**[1]. In addition, it exerts a **luteotrophic effect,** leading to an increase in progesterone (P4) concentration [2, 3].

Ovarian cystic disease, a common and clinically recognised cause of infertility in dairy cattle, is characterised by one or more large anovulatory follicles in one or both ovaries that persist for at least 10 days in the absence of corpus luteum, and abnormal oestrous behaviour. Researchers have shown that **65 to 80 % of cows with ovarian cysts** restore their ovarian cycles within 28 to 30 days after treatment with therapeutic agents with high LH activity, such as **hCG**. It has been concluded that **the most economical dose is 2500 to 5000 IU of hCG** [4]**.**



IMPROVED CONCEPTION RATE

Day 2 after Artificial Insemination (AI)

The administration of **hCG on day 2 of the estrous cycle** increased progesterone concentration (P4) and favoured **the improvement of conception rates at the first post-partum AI in cows of≥ 3 lactations** compared to the control group (42.1 % vs 27.3 % respectively) [5].

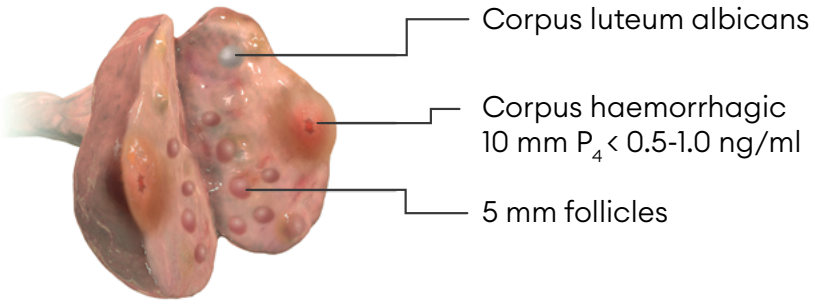


Photo 1: Sagittal section of the ovary on day 2 after ovulation (metaestrus) (Source - www.caliercampus.com)

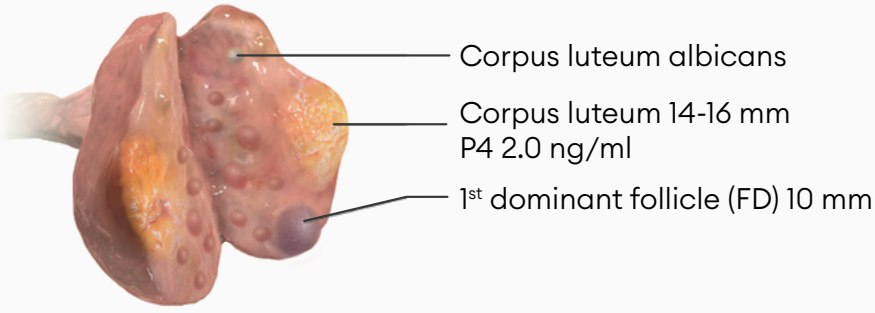


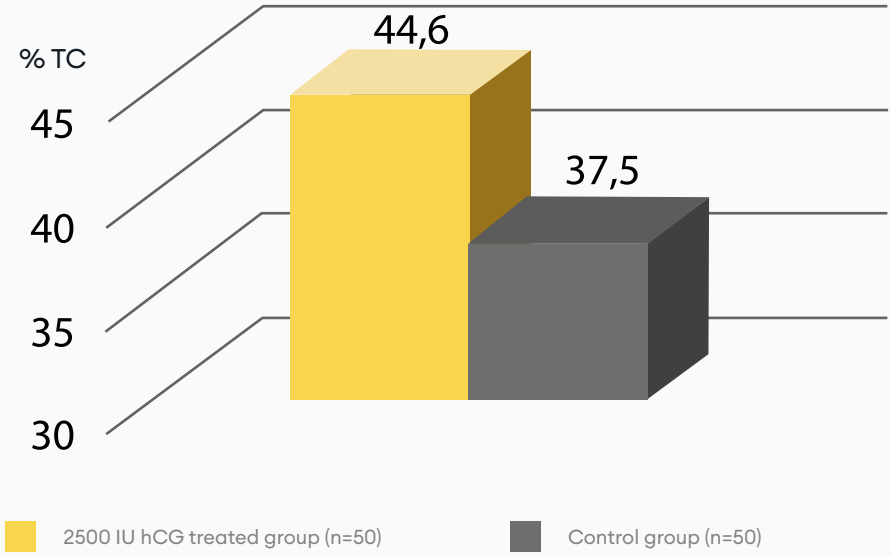
Photo 2: Sagittal section of the ovary on day 5 after ovulation (diestrous) (Source - www.caliercampus.com).

Day 5 after AI

Treatment with hCG on day 5 after AI improved P4 levels and pregnancy/IA ratio[6] and induced a **10% absolute increase in fertility** in **first lactation cows**[7].

Day 7 after AI

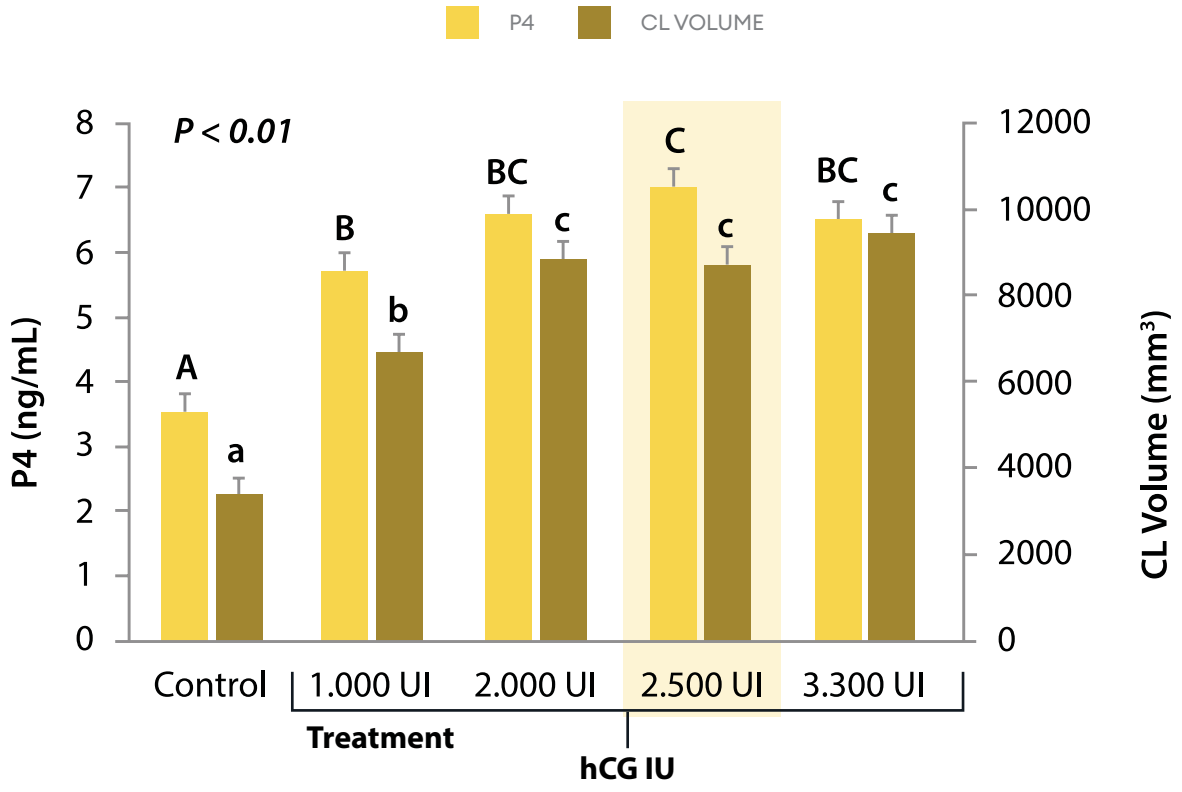
Field work with **CALIER hCG[8] in primiparous cows** showed a trend in the presence and volume of the corpus luteum (55% increase) and a 7% increase in conception rate **after intramuscular application of 2500 IU of hCG 7 days after AI** compared to the control group.



Graph 1: Percentage (%) conception rate (CT)

ANALYSIS OF THE APPROPRIATE DOSE

The application of **2500 UI hCG** was considered the **optimal dose** to induce ovulation 7 days after the last GnRH treatment, as it showed no difference in ovulatory response compared to 3300 IU, and produced the **largest numerical increase in plasma P4 concentration between days 7 and 14 [9].**



Graph 2: Progesterone (P4) concentration in ng/ml and total corpus luteum volume (CL) in mm³ according to hCG dose (adapted from Cabrera et al. 2021).

Capital letters (A-C) indicate differences (P≤ 0.05) in mean increase in P4 concentrations; lower case letters (a-c) indicate differences (P≤ 0.05) in mean increase in total luteal volume (existing CL+ accessory CL).

PRODUCT CHARACTERISTICS

Presentation

Box of:
2 vials of lyophilizate
2 vials of 5 ml solvent

Each vial of lyophilizate contains 5000 IU of hCG.

Indication

Ovulation induction.
Examples: follicular cysts, delayed ovulation and anovulation.

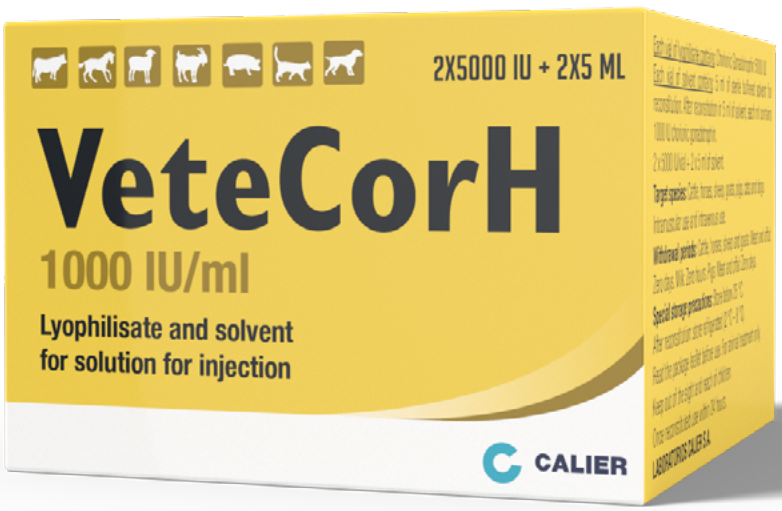
Preparation

Reconstitute the solution for injection with the solvent provided and ensure complete reconstitution just before the injection.

Each ml of reconstituted solution contains 1000 IU hCG

Route of administration

Intramuscular or slow intravenous route



You can consult the product data sheet here

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