



Hormones

PLUSET

Induction of superovulation

PHARMACEUTICAL FORM:

Powder and solvent for solution for injection.

COMPOSITION:

One vial of lyophilized product contains:

- Follicle-Stimulating Hormone (FSH) 500 IU
- Luteinizing Hormone (LH) 500 IU

One vial of solvent contains:

- Chlorocresol 0,021g
- Sterile, pyrogen-free, normal saline to 21ml



INDICATIONS:

To induce superovulation in reproductively mature heifers or cows. Induction of parturition.

DOSAGE AND ADMINISTRATION ROUTE:

Dissolve each vial of freeze-dried product with 10.5 ml of solvent. Mix gently during reconstitution. PLUSET is to be given by intramuscular injection only.

The following treatment schedule is recommended for the induction of superovulation in the cow:

The total recommended dose is 800 to 1000 IU in decreasing doses for 4 to 5 days. Considering the variability between animals and taking into account breed, age and reproductive status the dosing schedule should be adjusted appropriately. For heifers and beef cows a total dose of 800 IU is recommended. For dairy cows the dose could be increased to 1000 IU taking into account increasing age, parity number and dairy production.

Recommended schedule for 800 IU in 4 days			
Day 1*	08:00 hrs	3.0 ml i.m.	(150 IU FSH + 150 IU LH)
	20:00 hrs	3.0 ml i.m.	(150 IU FSH + 150 IU LH)
Day 2	08:00 hrs	2.5 ml i.m.	(125 IU FSH + 125 IU LH)
	20:00 hrs	2.5 ml i.m.	(125 IU FSH + 125 IU LH)
Day 3**	08:00 hrs	1.5 ml i.m.	(75 IU FSH + 75 IU LH)
	20:00 hrs	1.5 ml i.m.	(75 IU FSH + 75 IU LH)
Day 4	08:00 hrs	1.0 ml i.m.	(50 IU FSH + 50 IU LH)
	20:00 hrs	1.0 ml i.m.	(50 IU FSH + 50 IU LH)

Recommended schedule for 800 IU in 5 days			
Day 1*	08:00 hrs	3.0 ml i.m.	(150 IU FSH + 150 IU LH)
	20:00 hrs	3.0 ml i.m.	(150 IU FSH + 150 IU LH)
Day 2	08:00 hrs	2.5 ml i.m.	(125 IU FSH + 125 IU LH)
	20:00 hrs	2.5 ml i.m.	(125 IU FSH + 125 IU LH)
Day 3**	08:00 hrs	2.0 ml i.m.	(100 IU FSH + 100 IU LH)
	20:00 hrs	2.0 ml i.m.	(100 IU FSH + 100 IU LH)
Day 4	08:00 hrs	1.5 ml i.m.	(75 IU FSH + 75 IU LH)
	20:00 hrs	1.5 ml i.m.	(75 IU FSH + 75 IU LH)
Day 5	08:00 hrs	1.0 ml i.m.	(50 IU FSH + 50 IU LH)
	20:00 hrs	1.0 ml i.m.	(50 IU FSH + 50 IU LH)

* Corresponds to the 11th day of the oestrus cycle.

** A luteolytic dose of prostaglandin F2 alpha should be administered intramuscularly at 60 and/or 72 hours after the beginning of superovulation treatment.

CONTRAINDICATIONS:

Do not use during pregnancy.

A slight reduction in milk yield has been observed during superovulatory heat (as in other heats) but the production in general reaches pretreatment levels within 2 weeks.

WITHDRAWAL PERIOD:

Meat and offal: Zero days. **Milk:** Zero hours.

PHARMACOLOGICAL PROPERTIES:

Porcine FSH and LH are glycoproteins secreted from the anterior pituitary under the influence of GnRH released from the hypothalamus. FSH and LH stimulate normal gonadal functions and sex hormones secretion in male and female mammals. In females, during the normal oestrous cycle, FSH stimulates the development and maturation of Graafian follicles and the ovum. The follicles respond with increased oestrogen secretion from the internal thecal cells surrounding the follicle, which at mid-cycle, stimulate the release of pituitary LH by feed-back mechanism. The increased oestrogen secretion and LH from the pituitary cause the rupture of the follicle leading to ovulation. The follicle is then transformed into a progesterone-secreting corpus luteum

By administration of exogenous gonadotropin preparations containing FSH and LH it is possible to increase the ovulation rate. It is supposed that exogenous gonadotropin administration increases the number of antral follicles and reduces the number of atretic follicles. For the purpose of superovulation a proper FSH/LH ratio and an adequate treatment regimen is required. While FSH stimulates the follicular growth, a minimum LH amount has been shown to be necessary for obtaining multiple ovulations. Although the FSH/LH bioactivity ratio in PLUSET is maintained at 1:1, the activity is primarily that of follicle stimulation because of the short half-life of porcine LH.

PRESENTATION: 2X10 ml

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