ANNEX I

SUMMARY OF PRODUCT CHARACTERISTICS

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

FERTIGEST 0.004 mg/ml Solution for Injection

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each ml contains:

Active substance:
Buserelin..... 0.004 mg
(corresponding to 0.0042 mg buserelin acetate)

Excipients:
Benzyl Alcohol (E1519)..... 20 mg

For the full list of excipients, see section 6.1.

3. PHARMACEUTICAL FORM

Solution for injection
Clear, colourless solution

4. CLINICAL PARTICULARS

4.1 Target species

Cattle (cows), horse (mares), pig (sows and gilts) and rabbit (female rabbit for reproduction).

4.2 Indications for use, specifying the target species

Cattle:
- Treatment of follicular cysts.
- Improvement of conception rate in artificial insemination procedures.
- Synchronisation of oestrus and ovulation in cyclical cattle, for artificial insemination at a fixed time together with prostaglandin F2α administration.

Horse:
- Treatment of follicular cysts.
- Ovulation induction to synchronise ovulation more closely with mating.

Pig:
- Ovulation induction after oestrus synchronisation by weaning (sows) or by administering a progestagen (gilts) that can be used as part of a single fixed time artificial insemination programme.

Rabbit:
- Improving the conception rate.
- Ovulation induction postpartum.

4.3 Contraindications

Do not use in animals with known hypersensitivity to the active ingredient or to the excipients.

4.4 Special warnings for each target species

Cattle:
Cattle with a short interval between calving and insemination (< 60 days), a low Body Condition Score or high parity may display a lower pregnancy rate after a standard synchronisation protocol (see

section 4.9). There is no guarantee that all cows that were synchronised according to the protocol will be in oestrus at the time of artificial insemination. The chances of conception may be higher if the cow is in oestrus at the time of insemination.
To maximise conception rates of cows to be treated, the ovarian status should be determined and regular cyclic ovarian activity confirmed. Optimal results will be achieved in healthy normally-cycling cows.

Pig:
The buserelin administration is purely zootechnical in nature. Buserelin is administered after oestrus synchronisation. Buserelin is administered to gilts after treatment with a progestagen. The consequence of the progestagen treatment is that, if it is terminated simultaneously, the fertility cycles of treated animals are synchronised. Oestrus synchronisation is achieved naturally in sows by weaning. Insemination may be performed 30 to 33 hours after injection. It is recommended that a boar is present at the time of artificial insemination and the animal should be checked for signs of heat prior to insemination.
A negative energy balance during lactation could in some cases be associated with the mobilisation of bodily reserves, with a significant decrease of the thickness of the back fat (more than approximately 30%). These animals could suffer from delayed oestrus and ovulation and should be cared for and bred individually.

4.5 Special precautions for use

Special precautions for use in animals
Use aseptic procedures to inject the product. Infection may occur if anaerobic bacteria penetrate the tissue at the injection site, in particular following intramuscular injection.

Pigs:
If the recommended time schedule is not carefully followed, fertility may be impaired.
Progestins and buserelin can only be used in healthy animals.

Special precautions to be taken by the person administering the veterinary medicinal product to animals

Buserelin has been shown to be foetotoxic in laboratory animals; therefore, pregnant women should not handle the veterinary medicinal product. Women of child-bearing age should administer the product with caution.
Avoid eye and skin contact with the product. In case of accidental contact, rinse thoroughly with water. Should skin contact with the product occur, wash the exposed area immediately with soap and water, as GnRH analogues may be absorbed through the skin. Wash hands after use.
When administering the product, care should be taken to avoid accidental self-injection by ensuring that animals are suitably restrained and the application needle is shielded until the moment of injection. In case of accidental self-injection, seek medical advice immediately and show the package leaflet or the label to the physician.
Do not eat, drink or smoke while handling the product.

4.6 Adverse reactions (frequency and seriousness)

None known

4.7 Use during pregnancy, lactation or lay

Do not use during pregnancy.
The veterinary medicinal product can be safely used during lactation.

4.8 Interaction with other medicinal products and other forms of interaction

None known.

4.9 Amounts to be administered and administration route

Intramuscular or subcutaneous use.
In cattle, horses and rabbits, the preferred route of administration is intramuscular injection, but it may also be injected subcutaneously. In pigs, the preferred route of administration is intramuscular.

Cattle:

- Follicular cysts: 5 ml of veterinary medicinal product (0.021 mg of buserelin acetate) per animal.
- Improved conception rate: 2.5 ml of veterinary medicinal product (0.0105 mg of buserelin acetate) per animal, administered between the start of oestrus up to and including the time of artificial insemination.
- Synchronisation of oestrus and ovulation in cyclical cattle: 2.5 ml of veterinary medicinal product (0.0105 mg of buserelin acetate) per animal. The following protocol can be applied: 0.0105 mg of buserelin acetate on Day 0, followed by a prostaglandin injection 7 days later and a second injection of 0.0105 mg of buserelin acetate 48 hours after the administration of prostaglandin. Fixed-time artificial insemination can take place 12 to 24 hours after the second buserelin acetate injection.

Horse: 10 ml of veterinary medicinal product (0.042 mg of buserelin acetate) per animal.
The product should be administered on the first day on which the follicle has reached its maximum size. The product is best given approximately 6 hours prior to service. The mare should be served again the next morning if she is still in oestrus. If ovulation has not occurred within 24 hours after treatment, then the injection should be repeated.

Rabbit: 0.2 ml of veterinary medicinal product (0.00084 mg of buserelin acetate) per animal.

- Ovulation induction postpartum: 0.2 ml after parturition, insemination should be carried out directly after administration
- Improving the conception rate: inject 0.2 ml at the time of insemination or mating.

Pig: 2.5 ml of veterinary medicinal product (0.011 mg of buserelin acetate) per animal.
The artificial insemination schedule for pigs is the following:

Gilt:

- Administer 2.5 ml of veterinary medicinal product 115 to 120 hours after the end of the synchronisation treatment with a progestagen.
- Carry out single artificial insemination 30 to 33 hours after administering the veterinary medicinal product.

Sow:

- Administer 2.5 ml of veterinary medicinal product 83 to 89 hours after weaning.
- A single artificial insemination should be carried out 30 to 33 hours after administering the veterinary medicinal product.

In individual cases, the oestrus may still not be visible 30 to 33 hours after treatment with the veterinary medicinal product. In these cases, insemination may be carried out at a later time, when signs of heat are present.

The rubber stopper may be safely puncture up to 20 times.

4.10 Overdose (symptoms, emergency procedures, antidotes), if necessary

Buserelin only has minor toxicity; even when the recommended dose is exceeded, intoxication is not likely to occur.

4.11 Withdrawal periods

Cattle, horse, pig and rabbit
Meat and offal: Zero days.

Cattle and horse
Milk: Zero hours.

5. PHARMACOLOGICAL PROPERTIES

Pharmacotherapeutic group: Gonadotropin releasing hormone
ATCvet code: QH01CA90

5.1 Pharmacodynamic properties

Buserelin is a synthetic peptide hormone with a function analogous to the natural gonadotropin-releasing hormone (GnRH). It induces the release of the luteinising hormone (LH) and the follicle-stimulating hormone (FSH) from the anterior pituitary gland in the blood, approximately 1 to 2 hours after injection. The LH peak stimulates the ovulation of ripe follicles in female animals at clearly defined points in time after injection. In cattle, for instance, the majority of the animals is expected to ovulate approximately 24 to 28 hours after the buserelin injection. In pigs, the majority of the animals is expected to start ovulating approximately 38 to 44 hours after the buserelin injection. Optimum conception rates can be obtained by planning the insemination 12 to 24 hours prior to the expected ovulation. Administering buserelin in the interval between oestrus and artificial insemination increases the size or duration of the LH peak. This is often associated with improved conception rates. Higher dosages than the recommended clinical dosages do not have an additional stimulating effect on the LH and FSH secretion and do not have an increased positive effect on the conception rates.

5.2 Pharmacokinetic particulars

After parenteral administration, buserelin is quickly absorbed and excreted, mainly via urine. The metabolism takes place in the liver, kidneys and pituitary gland. All metabolites are small, inactive peptides.

6. PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Benzyl alcohol (E1519)
Sodium chloride
Sodium dihydrogen phosphate monohydrate
Sodium hydroxide (pH adjustment)
Hydrochloric acid (pH adjustment)
Water for injections

6.2 Major incompatibilities

In the absence of compatibility studies, this veterinary medicinal product must not be mixed with other veterinary medicinal products.

6.3 Shelf life

Shelf life of the veterinary medicinal product as packaged for sale: 2 years
Shelf life after first opening the immediate packaging: 28 days

6.4. Special precautions for storage

Do not store above 25 °C~~Store in a refrigerator (2 °C – 8 °C)~~.
Keep the vial in the outer carton in order to protect from light.

6.5 Nature and composition of immediate packaging

The veterinary medicinal product is packaged in type I colourless glass vials closed with bromobutyl rubber stopper (type I) and sealed with aluminium cap.
1 vial of 20 ml in a cardboard box.
5 vials of 20 ml in a cardboard box.
Not all pack sizes may be marketed

6.6 Special precautions for the disposal of unused veterinary medicinal product or waste materials derived from the use of such products

Any unused veterinary medicinal product or waste materials derived from such veterinary medicinal product should be disposed of in accordance with local requirements.

7. MARKETING AUTHORISATION HOLDER

VETPHARMA ANIMAL HEALTH, S.L.
Les Corts, 23
08028 Barcelona
Spain

8. MARKETING AUTHORISATION NUMBER

9. DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

Date of first authorisation:
Date of last renewal:

10 DATE OF REVISION OF THE TEXT

PROHIBITION OF SALE, SUPPLY AND/OR USE