

# **Advanced Equine Theriogenology Course**

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## **The use of Estrogens or Progestins for the suppression of stallion behavior.**

First I would like to just relay the information that I have found regarding the usage of these drugs, and then propose a method by which one should evaluate the problem of unwanted behavior in a stallion and correction thereof.

When all else has failed and clients are asking for a pharmacological approach to controlling behavior in a stallion, I found no reports in the literature pertaining to the usage of any type of Estrogen. My personal view is that, excessive estrogen may inhibit important aspects of spermatogenesis, which is the only reason that the stallion is here in the first place. However I have found information regarding the usage of Progestins, tranquilizers and other neuroleptics.

The most common endocrine approach to quieting sexual or aggressive behavior of stallions or geldings is the administration of progestins. Progestins may work via antiandrogenic as well as general tranquilizing properties. The most common effects are characterized by inhibition of luteinizing hormone from the anterior pituitary resulting in a reduction of Leydig cell activity, plasma testosterone levels, ejaculate volume, libido, and spermatogenesis. Several forms of natural and synthetic progestins have been used. Clinically, injectable forms produce more consistent results than oral forms. I have listed some of the most common forms and dosages of progestins as follows:

- Progesterone- available in an oil base at concentrations of 50 mg per ml; injected IM at 0.4 mg/kg/day
- Altrenogest- available in a 22 percent solution; given orally or in the grain ration at a dose of 0.02 ml/kg/day
- Megestrol acetate- available in 5 and 20 mg tablets; given orally or in the grain ration at a dose of 65 to 85 mg/d for a 500 kg horse.
- Repositol progesterone- available in an alcohol and propylene glycol solution in a concentration of 50 mg/ml; given IM at a dose of 1000 or 2000 mg at four or seven day intervals, respectively, for a 500 kg horse.

Tranquilizers are widely used to quiet undesired sexual or aggressive behavior of stallions and geldings, however there is little systematic study of the drugs' efficacy or safety. In stallions, phenothiazine tranquilizers have been associated with paralysis of the penis and paraphimosis. A long acting phenothiazine agent, fluphenazine

decanoate, has also been used, although its potential for inducing paralysis has not been studied. Similarly, reserpine has been used as a long acting tranquilizer to calm horses. In stallions, it too has been associated with penile paralysis and paraphimosis as well as hyperactivity and apparent psychotic behavior. After taking this all into consideration it is obviously understandable why, as a clinician, these types of drugs are not indicated for the control of undesirable behavior.

So now I would like to propose method or protocol in evaluation of a problematic stallion and present suggestions that may help in determining the best possible treatment. A suggested evaluation of the stallion and handler for a couple of hours per day for 10 days will help determine where the problem may possibly be. This will help because in most cases the problem lies within the human-animal interaction. The good news is that most handling problems can be overcome using judicious, skillful, and respectful training. Keep in mind that the handler will more than likely need more actual training than the stallion. Education of the handler of normal sexual behavior of the stallion proves to be very beneficial, because some normal sexual behaviors may be undesirable to the handler (vocalization, prancing gait, and normal sexual enthusiasm). Following is a list of aspects of good stallion handling I obtained from an article written by Sue M. McDonnell, from the Equine Behavior Lab at New Bolton Center, University of Penn. CVM.

- Work with stallion in a non-sexual situation to establish mutual respect, and to establish working commands to stop, stand, and back.
- Use of calm, organized, and respectful direction of the sexually aroused stallion.
- Recognition that vocalization, prancing, arched neck, etc. are normal precopulatory behavior
- Use of positive reinforcement with space and judicious aversive conditioning; appreciation that punishment is a dangerous teaching tool.
- Provision of ample room and exit routes to efficiently and quietly remove the stallion from the breeding situation should the stallion “get ahead” of the handler.
- Recognition that much of what we are asking of the stallion is natural and much is not.

So in closing I feel that an attempt to correct the behavioral problem first with training of the stallion and handler should be made. Then if the situation is not progressing in a manner that is acceptable to you and your client, a combination of continued training and judicious use of a progestin could be considered. However, I do not agree with first reaching for the bottle and altering the hormone balance within the stallion. As someone once said, and this pertains to more than just this case, “The answer is more than likely not in the bottle”.

**References:**

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