

LESSONS FROM THE WILD

Social classes and testosterone levels...

At the International Symposium on Equine Reproduction in Lexington, Kentucky a paper was presented on *the social interactions of the free roaming horses*. I would like to share with you my notes from that meeting. I think you will find the information interesting. The information was presented to us so we could help breeding farms with sexual problems that might arise. If we look at how the horse has spent the last several thousand years interacting with other horses, we might be able to detect problems that have arisen since man took over a few hundred years ago. Some of this information is a little explicit, which I suppose is the way veterinarians and their sexually active horses are.

The studies for this report were conducted by graduate students using binoculars over a very long period of time. They studied horses in the wild as well as a free roaming group put together by the University of Florida. The advantages of the University's group is that they could be brought in for blood, semen, and physical examinations.

The free roaming horse herd basically has two groups. The harem with the one harem stallion, and the bachelor herd. The first consists of a band of mares and its one stallion. The bachelor herd is where all the boys who do not have harems hang out.

The harem stallion and his group are in constant interaction. He is constantly checking the mares' urine and stool, disciplining the young, protecting the perimeter of the herd, and breeding any mare who will let him. This stallion will move around twice as much as one of the boys in the bachelor herd.

The mare appears to be the one who decides the time for breeding, and uses body language to tell the stallion. If he is too busy with other domestic duties and has not noticed her, she will search him out. One of her favorite moves is to cross in front of him and bump his chest with her chest or hips. To be sure he is not just imagining things, *the stallion will mount without an erection*. He will usually do this twice for each time he mounts with an erection. It is a precautionary move we can understand.

Once the stallion is sure the mare is receptive, he will breed her many times. As we have long known, if the stallion can achieve an erection, he will have adequate sperm numbers to settle a mare with a healthy uterus. After ejaculation, *the stallion usually does not dismount immediately* but waits for the mare to move away, usually after thirty to sixty seconds.

There are several points in the above that are applicable to our breeding situations. Due to a lack of space I will discuss them next week.

There are several interesting comparisons between the harem stallion and the bachelor stallion. When a stallion becomes a harem stallion, a position all the bachelors would like, his blood *testosterone level will double within one week*. Within sixty days his testicles and accessory sex glands will increase in size and the sperm count will increase.

If bad luck then comes his way and he ends up back in a bachelor herd, the testosterone level will drop rapidly: *within 24 hours to a level approaching a gelding*.

If a *bachelor stallion has the bad luck to be pastured in a field with a stallion and harem, his testosterone will be at its lowest possible level*. In that situation, the harem stallion will have the highest testosterone possible.