Chapter #4: Glossary of Terms and Information: General Semen Information

Horseman & breeders learn something new every day. The amount of information that is being thrown at you can be, for the most part, overwhelming. For this very reason, a simple outline has been drafted that will hopefully change the way you view and/or interrupt your stallion's semen motility.

<u>Total Volume</u>: The <u>total volume</u> is considered to be: The total volume of semen collected from a particular ejaculate measured in milliliters. (remember a cc is equal to an mL)

<u>Total Gel-Free Volume</u>: The <u>total volume of semen, post-filtration and removal of the gel fraction</u>. Most stallions normally do not produce gel unless an obvious distraction and/or a major procedural error occurs prior to and/or during the collection process.

<u>Concentration/mL:</u> The <u>total number of sperm per milliliter(mL) from a particular ejaculate</u>.

The *Next Generation*® *Quick Check*[™] easily determines concentration by way of an infrared 4-beam, radiometric turbidity analysis technique using raw semen. Scattered light systems will count dirt particles.

<u>Total Sperm:</u> The <u>total number of sperm present in a particular ejaculate: aka total concentration</u>.

Multiply the <u>Total Gel-Free Volume (mL)</u> **x** <u>Concentration/ml</u> = the <u>Total Sperm</u> in an ejaculate.

<u>Percent Progressive Motility:</u> The percentage of sperm cells that is <u>progressively moving forward</u>.

<u>Total Motility:</u> This is a combined assessment of <u>slightly motile + progressive motile = total motility</u>
For example, a rating of: <u>80/70</u> would indicate that a particular ejaculate would have 80% total motility and 70% progressive motility. **Progressively Motile Sperm + Slightly Motile Sperm = Total Motility**

<u>Total Usable Sperm per Milliliter:</u> Considered to be the *sperm that has the greatest fertilizing impact*. This procedure is accomplished by the following:

Total Sperm Concentration X Percent Progressive Motility = Total <u>Usable Sperm per Milliliter</u>.

