

What is pH?

A simple test can improve your stallion's fertility!

In scientific circles, pH stands for “potential of Hydrogen,” but as far as stallion semen is concerned, it can mean his “picture of Health.” By understanding how the pH levels of body fluids affect your stallion's health, you will learn just how healthy your stallion's semen really is!

The relative acidity or alkalinity of substances is measured in terms of pH. The more acid of a solution, the lower the pH number, the more alkaline, the higher the number. The pH scale goes from 0.00 (completely acid) to 14.00 (completely alkaline). Distilled water, with a pH of 7.0 is right in the middle – neither acid nor alkaline. An acid solution can be made more alkaline by adding alkalizing minerals – such sodium, calcium, or potassium – that “buffer” the acid, and an alkaline solution can be made more acid by adding acidifying substances. The *Next Generation*[®] Semen Extenders guarantee a range from 6.75 to 6.9 & osmolarity of 340 to 365.

The pH of a solution can be determined by using strips of chemically treated paper. When immersed in the solution, the paper changes color to show the degree of acidity or alkalinity. This can also be attained by an electronic pH meter/test probe.

PH and Your Stallion Semen Health

All of the fluids of the body operate best at particular levels of pH ranging between slightly acid and slightly alkaline. Only stomach fluids are highly acid. Blood has a slightly alkaline pH of 7.35 to 7.45. It is crucial for blood to stay within that narrow range. If the pH of the blood should fall much below 7.35 or raise much above 7.45, the body would not survive very long. Monitoring your stallion's pH can be the difference between of a good breeding season or marginal one.

How can I determine pH?

Simple tests of saliva, urine and/or semen can be simply performed, which can give you a good idea of the pH levels of horse's body. If they are truly healthy, both their saliva and urine should register around pH 7.0.

Testing saliva, urine and/or semen in the morning, will give you an idea of how their body is operating. Urine pH tells you how their body is responding to the feed they ate the day before. Saliva pH tells you how your body has adapted to the feed they have eaten in the past weeks and months.

If they have not been eating feeds that contain alkalizing minerals, their body has adapted its functions to keep the pH of your blood and other vital fluids as correct as possible. It is often these long-term adaptations--adaptations that are necessary for survival—that eventually lead to symptoms of chronic degenerative diseases such as arthritis, poor semen motility and/or fertilizing impact.

Where do alkalizing minerals come from?

Alkalizing minerals are stored in many organs and tissues of the body. The liver is the greatest store house of sodium; the bones are the greatest store house of calcium. Yet these store houses can be emptied if the minerals that are utilized aren't properly replaced. The grain and hay you feed determines how well their reserves are replenished. Allowing for a good variety of pasture grasses, contributes to the usable alkalizing minerals they need to restock their alkaline reserves.

When there are enough reserves to buffer the acid produced naturally by cellular activity, due to the feed they consume, their urine pH and saliva pH will register around 7.0. Readings of considerably lower or higher pH than 7.0 usually indicate that their buffering reserves have been depleted and their body is being forced to accommodate by other means.