Predict-A-Foal™ Animal Healthcare Products

General Introduction:

Mares are often very unpredictable in showing signs of foaling. The gestation length can vary several weeks and many evenings and nights can be wasted sitting up watching and waiting for the foal to arrive. It is generally agreed that the average length of time that a mare is pregnant is approximately 335-340 days, however normal ranges between 320-360 days are often quoted by experts in the field of broodmare management.

The test kit you have just purchased has been scientifically designed to assist you in helping to predict when your mare will foal. It is very important when using this kit that you perform the test exactly as described and pay particular attention to the section discussing the interpretation of results. Testing solution is distilled water.

Advantages Of Predict-A-Foal:

- 1. Prevents unnecessary sleepless nights.
- 2. Easy to perform.
- 3. Economical compared to night watchman or electric monitoring device.
- 4. Can give additional information as to possible complications or problems, e.g. prematurity, placental infections, etc.
- 5. Allows safe movement of mares prior to foaling.
- 6. Avoids the necessity of confining the mare to a foaling stall too early.
- 7. The test is safe, non-invasive and reliable.

Signs Of Parturition:

These can vary considerably from mare to mare. Maidens may show no signs whatsoever before they foal. Other mares may show every conceivable sign for 3-4 days or longer. The indications given below should only serve as a general guideline.

a) *distention of the udder:* This can occur for up to 6 weeks prior to delivery of the foal, but usually begins to appear 2-4 weeks beforehand and increases gradually as parturition becomes more imminent.

b) Slackening of the area around the buttocks and base of the tail: This is something that is only detectable by frequent examination of the area. The slackening usually starts 1-3 weeks before the foal is born, and by the time parturition occurs the region around the base of the tail is very loose feeling.

c) *Falling of the teats:* Usually starts to occur a week to ten days before the foal is born.

d) *Wax on the teats:* This occurs in approximately 60% of mares and is one of the more reliable indicators of impending parturition. Most mares will foal within 2 or 3 days of the wax appearing.

e) *Loose vulval lips:* This may be often difficult for the inexperienced person to judge, but the best way may be to compare with another mare in the area. Excessive slackness of the vulval lips usually indicates parturition within 48 hours.

f) *Milk dripping from the udder:* Is a sign that foaling is very imminent i.e. within 12-24 hours.

Some mares however will "run" their milk for several days and these mares will often have an internal problem such as an infected placenta. Valuable colostrum is also lost during the process, and it is advisable to consult your veterinarian if this is occurring.

When To Start Testing The Mare:

We recommend that you start testing your mare approximately 10 days before she is due, based on an average gestation length of 335 days. (If you have the earlier kit, test chart is based on gestation length of 340 days; therefore, you should take 15 days off of the predicted foaling date.) The enclosed gestation table will help you to determine this date. If you do not have an accurate breeding date you should attempt an initial test as soon as the udder begins to enlarge and secretion can be obtained from it. Some mares will begin mammary development much earlier than expected. This can be due to various factors including the presence of twins, and impending abortion or a wrong breeding date. Mares foaling between 300-320 days will produce premature foals and particular attention will be needed to ensure every possible chance of survival of the foal.

Testing Procedure:

Before attempting to use the kit please ensure that it contains the following:

- a. Clear plastic vial containing fifteen test strips. Store strips at cool room temperature away from sources of moisture. Strips must be kept dry, Extreme humidity may spoil the integrity of the test strips.
- b. Sample collection cup.
- c. Fifteen disposable plastic test tubes with caps.
- d. Fifteen disposable plastic syringes
- e. Plastic dropper bottle containing test solution.
- f. Test chart and Guide Book

Collection of Sample:

This is performed as late as possible in the evening (just before going to bed) and may be the most difficult part of the test. Some mares are often resentful of having milk taken from their udders, especially maidens. Standing at the side of a normally cooperative mare the sample is obtained by gently squeezing the base of the nipple between the index finger and thumb and then pulling towards the tip of the nipple. The collection cup is held in the other hand and close to the nipple, occasionally milk will come out in an unexpected direction, so it is important to keep the collection cup close to the nipple. (See photo 1)



PHOTO 1

If the mare is objecting to this it is advisable to massage the udder with either a warm damp cloth or with the palm of your hand containing a small amount of baby oil. This will help relax the mare and also be especially beneficial in maiden mares when the foal comes to nurse. A small percentage of mares, again especially maidens will still be resentful even after the above procedure and physical restrain may be necessary such as holding a front leg up or applying a twitch. Only a small amount of fluid is required, enough to fill the small plastic syringe to the half way mark. If it is impossible to obtain any secretion you are probably testing the mare too soon. And you should therefore wait a few days and attempt the test again. At this stage the color of the "milk" should also be noted and more information will be given on this under the section "interpretation."

Preparation Of The Test Sample:

Take one of the plastic test tubes, hold it up against the image on the Predict-A-Foal test chart and fill to the lower line with the test solution (*photo 2.*) Replace this temporarily back into the box.



PHOTO 2

Using the small disposable plastic syringes draw up "milk" from the collection cup. It is preferable to slightly overfill the syringe and then remove it from the remaining solution and expel excess fluid or until the plunger on the syringe is lined up with the 0.6 mark on the syringe barrel (*photos* 3 & 4).



PHOTO 3



The milk in the syringe is then emptied into the test tube containing the test solution (photo 5).



This will bring the level of solution in the syringe to the upper line on the test chart (*photo 6*). The plastic cap is then placed onto the test tube and the tube inverted several times to mix the solutions.



Photo 6

Performing The Test:

From the vial containing the plastic test strip, take out one strip from the side opposite the green squares, holding only the white plastic and dip the end containing the five squares into the test tube, ensuring that the solution covers all the squares (*photo 7*).





It is important that your hands are clean and dry and that you do not touch the green squares. Immediately withdraw the test strip, shake off the excess moisture and wait exactly one minute. During the one minute period you should observe the squares on the strip and make a mental note of any color changes and how rapidly they occur. At the end of one minute exactly compare the colors on your test strip with the enclosed chart *(photo 8 below)*.

Subsequent Tests:

The only item in the test kit which is reusable is the collection cup and this should be thoroughly rinsed and dried after each test. It is recommended that paper toweling be used to dry the inside of the cup as any residues left in there may interfere with subsequent tests. **The test tube**, **measuring syringe and test strips are disposable and new ones should be used for each subsequent test.** (See Section 6 for exceptions to this.) When you first begin to test your mare you will probably obtain no color changes on the test strip and it is usually safe to wait 2-3 days before a retest. Once the test squares begin to change color, it is advisable to test the mare every day. Section 6 will deal with this in more detail.

Interpretation of Results:

It has been often stated that there is no such animal as a "normal" mare. Despite this relatively truthful statement results have shown that in testing over 200 mares, many of which could be considered "normal", the chance of your mare foaling on a given test result are as follows:



Generally speaking, if when you perform the test, there is no color change, it is safe to wait at least 2 or 3 days before retesting the mare. Although this holds true for about 75% of mares, there are some mares that will very rapidly prepare to foal and actually give birth; so you should be on the lookout, not necessarily throughout the whole night, for any significant changes in the mare's behavior. If you feel that there has been a significant change a subsequent test is indicated immediately.

The color of the secretion obtained also has some influence on the frequency of performing the test. Pale, relatively transparent, watery yellow fluid usually indicates that the mare is a considerable time away from foaling, and this coupled with very little color change on the test strips would allow one to wait at least 2-3 days before retesting. On the other hand if the secretion is milky white and plentiful or thick and sticky, but the color changes are minimal, one should only wait 24 hours before a retest. The secretion of more than 80% of mares will have

changed from a transparent watery yellow to a grayish by the time the mare foals. Maiden mares may not follow this pattern.

The speed at which the squares change colors is also very helpful. A rapid change in 3-4 of the squares indicates that the mare is closer to foaling than a similar color change which takes a full 60 seconds. Mares which produce a secretion which cause a rapid color change in all five squares will usually foal within six hours. Individual mares will again vary as to the rapidity with which they build up to a 4-4 square change. Usually this will occur within 6-7 days period from the first square changing color. As usual with the mare, however, some mares will have a 1-2 square color change for many days and you will be frustrated by obtaining the same test results day after day.

Reasons For Erroneous Results:

A few mares will foal with either no color changes or just slight color a change on squares 1 or 2. Results have indicated that either these mares are producing premature foals i.e. before 320 days of gestation, or are producing foals at full term but the mare is in an undernourished condition. In either of these situations there is a great likelihood of a problem arising with respect to the foal obtaining sufficient colostrum and/or milk. You should consult your veterinarian for advice in this situation.

A small percentage of mares will show a reading of 4-5 square color changes for several days without producing a foal. These mares will sometimes lose colostrum during this period and this can be very significant as far as the future survival of your foal. Some of the mares in this category will produce perfectly normal foals that may or may not need colostrum supplementation, others will produce foals that have a low grade infection either of the placenta and foal or just of the placenta. If you obtain 4-5 square reading for more than three days, especially if your mare is losing colostrum it is advisable that you consult your veterinarian to check that everything is okay. Mares that foal with this type of reading should be observed very closely, and it is very beneficial to preserve the placenta for inspection by your veterinarian. This is best done by putting the entire placenta in a pail of cold water immediately after it is discharged from the mare. An average placenta weighs between 10 -15 lbs. and if you have the facilities to weigh the placenta prior to putting in the pail of water this could be beneficial. Infected placentas are usually very thickened and heavy and can weigh as much as 20 -25 lbs. Particular attention should be paid to foals born with abnormal placentas.

The color changes on your test strips vary slightly from those indicated on the enclosed chart. This is not particularly important, the important thing is that the color changes from green to a shade of mauve or pale purple. There is individual variation between the batches of strips as to exactly what the shade will be, but this does not affect the accuracy of the test. Successful predictions are dependent upon accurate performance of the test as described and the proper interpretation of the results utilizing the factors set forth in Section 6. Because of differences that may be peculiar to a small number of mares, there may be some variations are observed or peculiarities are known, your veterinarian should be consulted.