



Uniferon Best Practice Recommendation

Herd level blood sampling

To determine the prevalence of anaemia and iron deficiency within the herd, a haematological examination is needed. Haematological examination can be done by HemoCue 201+ Hb photometer or a reference laboratory. These are the recommendations from the Iron Expert Board:

Sampling

Blood sampling for pen side testing using HemoCue 201+:

The HemoCue 201+ Hb photometer is technically as well as economically well suited for pen side haematological examination. A single drop of blood is taken from the ear vein using a disposable needle. The blood is introduced into a disposable cuvette by capillarity and then placed in the HemoCue 201+ Hb photometer. Results for haemoglobin concentration are obtained in less than a minute.

Blood sampling for lab testing using vacutainer tube:

After placement in dorsal recumbency approximately 3 ml blood is sampled by puncture of vena cava or the jugular vein using an in EDTA stabilized vacutainer tube. Cool the samples immediately after termination of sampling. Testing for haemoglobin concentration at a reference lab should be carried out as soon as possible and preferably no later than the following day.

Sample size for herd level assessment

The sample size necessary to estimate prevalence is calculated by the equation:

$$N = (Z (1-\alpha/2) 2 \sigma^2) / L^2$$

N = the number of samples taken

α = 0.05 (95% level of confidence) =>

$$Z (1-0.05/2) = Z_{0.975} = 1.96$$

σ = standard deviation

L = Expected Absolute Error

In a herd with 5% of animals suffering from anaemia (<90 g Hb per litre) a sample size of 20 animals is sufficient to determine the prevalence with an allowable error of +/- 10%.

Sincerely
The Uniferon Team

