Urine Iodine analysis

Urine Iodine

£ * for 1
£ * for 6
£ * for 10

Prices do not include VAT

- A 10% discount will be applied if blood samples are submitted at the same time for a blood trace element profile from the same animal.

Plasma inorganic iodine was originally developed to replace urine iodine as urine was thought to be difficult to sample, both assays report the same thing – iodine supply. Selenium status should always be assessed when considering iodine issues as selenium deficiency impairs iodine function (conversion of T4 to T3).

This analysis is designed to be a herd monitoring tool rather than a diagnostic service and analysis will be carried out on a batch basis (similar to the blood service) to maintain low costs. Initially we will be looking at monthly batches but if there is enough demand for this service then we should be able to run fortnightly batches and then typically results will be sent by e-mail (in a spreadsheet) between 3 and 17 days from sample receipt, rather than the 3-35 days if analysed monthly.

The analysis will report urine concentrations of iodine and creatinine which will allow for a creatinine standardised urine iodine to be given to discount the differential dilution of urine samples collected.
Urine sample collection, storage and dispatch
Urine should be collected by free catch into a large (60-150ml) clean container and then a subsample can be put into a smaller secure tube (eg plain serum tube) for delivery. Often a small tickle of the vulva will induce the cow to urinate, please try to catch clean urine and not faecal contaminated urine. You also need to be careful not to contaminate the urine collected with iodophores (teat dips and pre sprays) so please consider where sampling occurs and consider wearing gloves. The analysis requires ~ 2ml of urine. The samples may be refrigerated (<1 week) or frozen prior to dispatch allowing for the batching of samples. Please make sure your packages conform to current regulations for animal samples (UN 3373, P650) and are labeled as ‘Biological specimen’ and have the UN3373 sign.

Samples should reach the laboratory within 48 hours of dispatch. We recommend that you use guaranteed next day delivery services.

Guideline normal values
The service is non-interpretative, but guideline values are outlined below for your information. A more detailed species relevant classification will be included with the results.

Iodine (reported in mg/l)

The results are reported in raw state and standardised to a creatinine concentration of 5000 µmol/l. If thyroid function is compromised by selenium deficiency or due to goitrogens then urine excretion of iodine may remain high even though there is a functional deficiency.

<table>
<thead>
<tr>
<th>Urine Iodine (mg/l)</th>
<th>Low</th>
<th>marginal</th>
<th>normal</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;50</td>
<td>50-100</td>
<td>&gt;100</td>
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These values are given as a guide only to aid your interpretation of the analysis, remember that there may be variation between individuals. Please be careful to match units used when using other ‘normal’ ranges etc.

Samples submitted to and data generated from this laboratory may be used for research purposes. The use of this service implies that you are happy for anonymised data to be used.