

# Cobalt & copper deficiencies in sheep

## Cobalt Deficiency

### ● Clinical signs

Sheep with cobalt deficiency are ill thriven, often with poor fleece quality and poor appetite. The condition is called 'pine' and is usually seen in store lambs, often together with other problems such as parasitic gastroenteritis.

Lambs with subclinical cobalt deficiency will take longer to finish and may be more susceptible to other disease. Occasionally affected sheep may have nervous signs similar to CCN due to the liver damage that occurs in chronic deficiency. This is called ovine white liver disease.

### ● Diagnosis

Levels of vitamin B<sub>12</sub> in blood or liver are measured to determine deficiency. Blood samples should be collected from at least 6 sheep in the affected group. Sheep should be gathered immediately prior to sampling as levels may be falsely elevated in sheep that have been penned in advance.

### ● Treatment

There are many products available to treat cobalt deficiency ranging from oral drenches, boluses and injectable preparations. The choice depends on many factors including age, whether lambs are replacement females or intended for slaughter, length of time to reach slaughter weight, handling facilities and cost.

Contact your veterinary practitioner for further advice.

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**Please contact your nearest VLA regional laboratory for advice on tests and services available. Contact details can be found on the VLA website.**

#### Contact details

VLA, Weybridge,  
New Haw, Addlestone,  
Surrey, KT15 3NB  
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**Tel:** 01932 341111  
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## Copper Deficiency

### ● Clinical signs

The most common condition associated with copper deficiency is swayback in lambs from ewes with low copper levels. This occurs either at birth or in the first few months of life, and affected lambs have difficulty standing and are weak on the hindlimbs. In growing lambs severe copper deficiency can cause problems with bone strength but this is rarely seen.

Sheep may have low copper levels due to:

- low copper in the diet,
- poor absorption due to antagonistic effect of other metals in the soil.

### ● Diagnosis

Copper levels can be measured in blood and tissue (liver). Confirmation of swayback may require post mortem examination of the brain and spinal cord by a VLA pathologist.

### ● Treatment

Supplementation with copper is simple. However it is important to know the copper status of sheep before giving additional supplies as too much can lead to death due to toxicity. This is particularly true in continental breeds that are more susceptible.

Contact your veterinary practitioner for further advice.