

# Trace Element Deficiencies in Sheep

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Please circle one answer only e.g. **A**

There is considerable interplay between trace element deficiency states and which other disease complex?

- A Parasitic gastroenteritis (PGE)
- B Liver fluke infestation
- C Coccidiosis
- D Lameness
- E Respiratory disease

Which of the following trace elements commonly causes a deficiency state in growing lambs?

- A Calcium
- B Lead
- C Iodine
- D Cobalt
- E Magnesium

Cobalt has an important biological role as a constituent of :

- A Vitamin B1
- B Vitamin B2
- C Vitamin B6
- D Vitamin B10
- E Vitamin B12

Pine in lambs can occur:

- A Where there are low soil cobalt concentrations
- B Where there are high soil cobalt concentrations
- C Where there are high soil molybdenum concentrations
- D Where there are high soil sulphur concentrations
- E Where there are high soil iron concentrations

Clinical signs of cobalt deficiency are most commonly observed:

- A In one to four week-old lambs
- B In five to eight week-old lambs
- C In lambs at pasture during mid summer
- D In weaned lambs at pasture during late summer/autumn
- E Gimmers

Pine in growing lambs can be prevented in most situations by which of the following strategies?

- A A single drench of copper given to lambs at day-old
- B A single drench of cobalt given to lambs at month-old
- C Monthly dosing lambs from around three month-old with cobalt drenches
- D Dosing lambs with a cobalt drench at weaning

E Dosing ewes with a cobalt drench at lambing time

Veterinary diagnosis of poor growth in lambs reveals only cobalt deficiency. The best treatment of the more severely affected is likely to be:

- A A cobalt drench
- B An injection of vit B12 and cobalt drench
- C A multi-vitamin injection
- D A soluble glass boluses containing cobalt, selenium and copper
- E A cobalt oxide containing bolus

Swayback in newborn lambs is caused by:

- A Copper deficiency in ewes during early pregnancy
- B Copper deficiency in ewes during mid-pregnancy
- C Copper deficiency in ewes during late pregnancy
- D Cobalt deficiency in ewes during mid-pregnancy
- E Iodine deficiency in ewes during mid-pregnancy

White muscle disease is caused by:

- A Cobalt deficiency
- B Copper deficiency
- C Copper excess
- D Selenium/vitamin E deficiency
- E Iodine deficiency

The most cost-effective method to supplement growing lambs with selenium is:

- A A drench containing selenium
- B Free-access licks/minerals
- C A soluble glass boluses containing cobalt, selenium and copper
- D Top dressing pasture with selenium salts
- E A selenium injection