Copper deficiency is one of the most common mineral deficiencies that we have to deal with in Irish cattle. The severity of deficiency varies from county to county and some breeds are more severely affected than others. The effects of copper deficiency include infertility, rough discoloured hair coats, slow shedding of winter coats, reduced growth rates and, in some cases, diarrhoea.

Copper is essential for a healthy immune system. It is important in the production of antibodies and the white blood cells that fight infection and in the case of cows contributes to allowing them to produce good quality colostrum.

As a result, in cases of calf scour or pneumonia where a number of calves are affected, low copper in the cows could be a contributing factor.

Copper deficient cattle or calves born from copper deficient cows are more susceptible to infectious diseases and do not respond as well to vaccinations. Cows can be blood tested to assess their copper levels and supplemented, as necessary.

Other minerals can interact with copper and affect uptake such as molybdenum, sulphur and iron, knowledge about minerals levels in soil, grass and silage can be useful in deciding what supplemental minerals to provide.

Soil samples should be collected from several areas of the farm and silage from each separate cut to ensure accurate results. Mineral levels in soil and, thus, herbage can vary significantly even within a farm.

There are several options for supplementing copper to cattle and these include injectable copper, slow release boluses, mineral licks, in water supplementation and meal additives.

**Management**

Management issues on farm will contribute to selecting the most appropriate way to supplement copper in your herd.

There are several varieties of all of these on the market and some seek to address all trace mineral deficiencies. Mineral boluses release a small amount of minerals daily and, thus, need to be administered a number of time throughout the year.

If supplemental minerals are being added to the feed, this will need to continue at an appropriate level throughout the year.

It is important to remember that trace element supplements do not address calcium or magnesium in milk fever and grass tetany. Discussing silage and soil samples with your vet will assist in deciding what, if any, supplementation is best for your herd.

*Donal Lynch owns and runs Donal Lynch Veterinary, Tulamore, Co Offaly. Donal Lynch Veterinary is part of XLVets. XLVets is a group of progressive practices who are working together to achieve a better future for agriculture and veterinary in Ireland. Visit the website www.xlvets.ie*