Obtaining optimum mineral status in dairy cows is often thought of in isolation at critical points in the production cycle. Correct mineral balance is vital for health and performance, but is complicated by the way different minerals and vitamins are absorbed and metabolised and potential interactions with other components of the diet. Our understanding of mineral nutrition varies depending on the individual mineral being considered, this effects how certain we are about cow requirement. The science is also advancing to consider how cows may respond to different minerals that are supplemented above the levels required to prevent deficiency and how this changes depending on mineral form.

A whole lifetime approach to mineral nutrition is useful because some minerals accumulate in the cow and inadequate or excessive mineral provision can have adverse effects at the time or later in the cows life. The mineral status and transfer of mineral from cow to calf also plays a crucial role. This means we must consider, mineral nutrition in the dry period, in early life when being fed milk or milk replacer, as youngstock grow, optimisation for fertility, and optimum mineral nutrition during lactation. A joined up approach is beneficial to cow health and performance, throughout her lifetime and also benefits the performance of her calves.