As the world population continues to increase, the demand for fertilizers is expected to remain strong. The growth in fertilizer demand is driven not only by population growth, but also by changes in diets, as more of the world’s population is consuming more animal based protein. This trend drives the need for even more crops to feed cattle and higher fertilizer demand.

The phosphate that is used to make fertilizers continues to be sourced from mining, and new deposits are becoming increasingly more complex to beneficiate. Clariant Mining Solutions works closely with engineering houses and mining companies around the globe to develop novel reagents to solve the unique challenges of each deposit. In this presentation, some examples of the solutions developed by Clariant Mining Solutions will be highlighted.

Additionally, even existing phosphate operations face challenges to adapt to changing ore characteristics and to increase the sustainability of their operations. Some examples of the reagent development that Clariant Mining Solutions has conducted to improve existing operations will also be presented, including novel amines that reduce the water demand at the beneficiation plant.