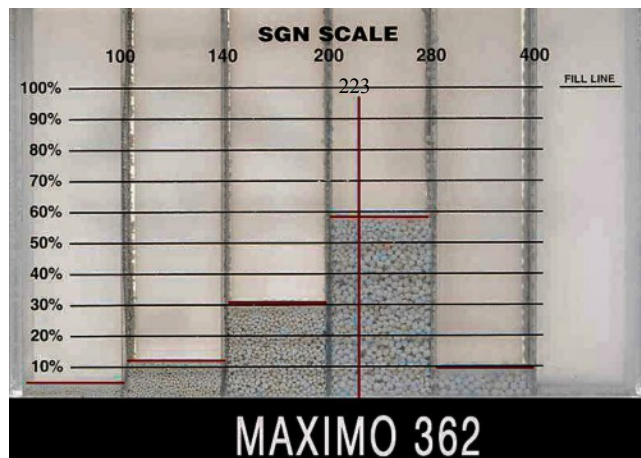
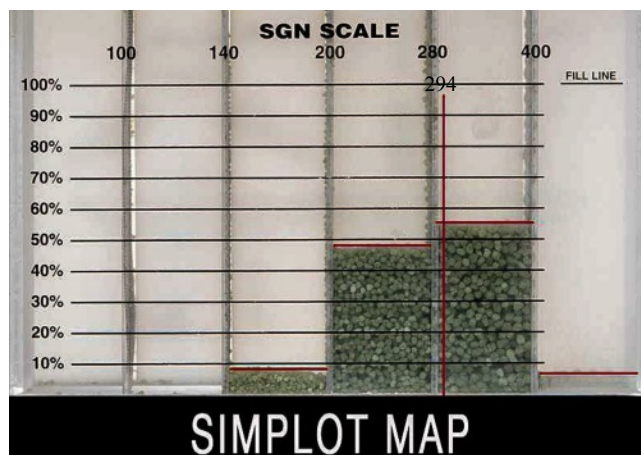


Cost Effective Zinc Fertilization

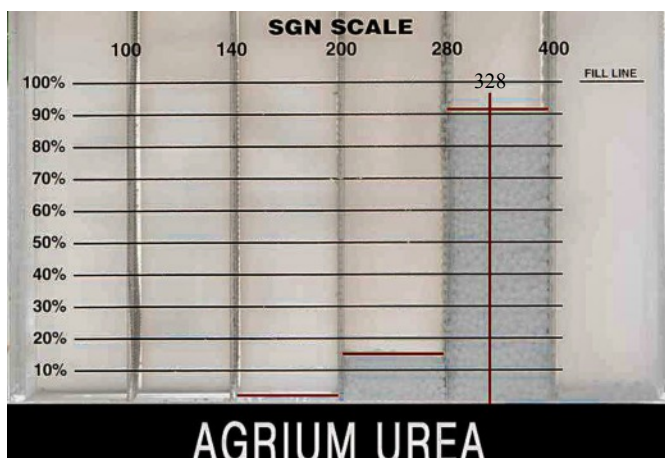
The most cost effective way to get the precise amount of zinc needed by an annual crop is by using zinc sulfate monohydrate in a precision dry blend application. This is generally accepted and most agronomists would agree. However, this is only true if the zinc sulfate monohydrate is evenly spread across the field. If the zinc sulfate granule is too small, the first part of the field gets all the zinc and if it is too large the last part of the field gets all the zinc due to segregation. How can we tell if the zinc product we're using will stay blended and not segregate?



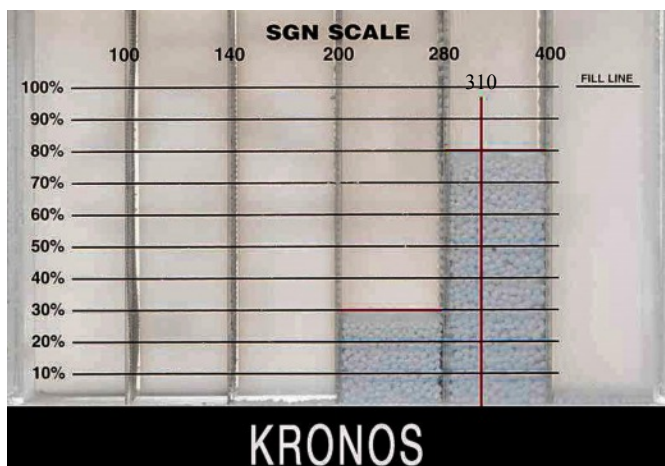
Uniformity Index- 46



Uniformity Index-63



Uniformity Index- 75



Uniformity Index-75

There are two data points that will determine how any granule fertilizer will stay blended; the Size Guide Number (SGN), and the Uniformity Index (UI). The SGN is a measurement of the average size of the granules. The SGN should be between 275 and 330 (average size between 2.75 mm and 3.3 mm). The UI is a measurement of how close all the granules are to the same size. A UI of 100 means that all the granules are the exact same size. The UI should be at least 60.

Above are pictures of three zinc sulfate products and two basic fertilizers that they are regularly blended together in an SGN tester. The SGN and UI are shown with each picture.

Selection of the screen size is the best way to improve both the UI and the SGN. For example, according to the Zinc Nacional website, Maximo 362, is screened through a 6 mesh (3.36MM) top screen and stays on a 16 mesh (1.00 MM) screen. This is why Maximo 362 has an SGN of about 215 and a UI of 46. This material is too small and much too inconsistent to be a good blending product. Kronos Micronutrients uses a 5 mesh (4 MM) top screen and an 8 mesh (2.38 MM) bottom screen. Kronos material has an SGN of about 310 and a UI of 75. This product will stay blended and the Maximo 362 will not. A through 6 on 16 screening operation greatly reduces the SGN and the UI. In doing that, it also reduces the recycle rate in the granulation operation. This in turn reduces the operating cost. Always remember, **QUALITY COSTS MONEY**. Always look at the SGN and the UI when buying any micronutrient especially zinc.