Thousand Kernel Weight

Method

1. Prepare a 500-gram sample of wheat by removing all dockage, shrunken and broken kernels, and other foreign material.
2. Divide the sample several times using a mechanical divider until you have approximately 50 grams.
3. Count 1,000 kernels using a mechanical counter and weigh.



Results

- Thousand kernel weight is the weight in grams of 1,000 kernels of wheat.
- This method is used to estimate kernel mass.
- This measurement also may be determined using the Single Kernel Characterization System.

Why is this important?

Thousand kernel weight (TKW), as a method, measures the mass of the wheat kernel. It is used by wheat breeders and flour millers as a complement to test weight to better describe wheat kernel composition and potential flour extraction. Generally speaking, wheat with a higher TKW can be expected to have a greater potential flour extraction.