

MEASURE AND MANAGE

Particle Size Evaluation in Animal Feed

Particle size in animal feed has a critical role in digestibility, particularly in pigs. Evaluating the particle size requires screening the feed through a series of screens of different mesh sizes and calculating the average particle size and its standard deviation. The method of particle size evaluation used at Agri-Food Laboratories is adopted from that of Kansas State University Cooperative Extension Service. They have used 13 screens to estimate the average particle size and its standard deviation. They have also tested the possibility of fewer numbers of screens (5) to see if there is a difference in estimating the average particle size and its standard deviation. The difference was found to be relatively insignificant.

At Agri-Food Laboratories we use a set of nine screens to evaluate particle size distribution in feeds. One of the reasons for using nine screens is that most commercial shakers can accommodate only up to nine 2" depth screens.

The above particle size evaluation method has been adopted by Agri-Food Laboratories since April 2004 providing the feed industry valuable information in animal nutrition.