



Seed quality is determined by factors such as germination rate, vigor and presence of impurities.

A germination test is used to determine the maximum germination potential, or viability, of the seed. Seed vigor is the concept used to explain this performance difference between germination test and actual field emergence.

Seed with high vigor gives rapid, uniform emergence, and normal seedling development under a great range of environmental conditions. High vigor seed also tend to retain its ability to germinate after prolonged storage.

Impurities are presence of fusarium infected kernels or kernels of foreign species. wheat carry a risk of lowering the result in falling number value, instead of improving the average.

A durum miller needs vitreous durum wheat to produce a high level of semolina. It is important to find methods to increase vitreousness in durum wheat.



Industry Impact

- Low seed quality carries a discount and could have a negative marketing impact. Carryover stocks of seed are also difficult to market unless the seed vigor was high.
- Seed with fusarium infected kernels should not be planted as this will spread and also introduce the fungi to new areas.

BoMill solution

BoMill produce equipment that can sort seed according to its relative quality in a unit or batch. This enables a seed breeder or producer to find and separate the strongest kernels in a batch from the weaker ones.

The machines are equipped with NIT technology that predict the quality of every kernel by sending infrared light through it and measure the response. NIT is a mature technology commonly used in protein measurement equipment.

High vitreous seed contain high protein and are more resistant to infections by pathogens than low vitreous seed. In general, this seed has higher quality.

Using NIT makes the quality prediction very accurate and do not limit the sorting criteria to visible color differences on the surface.