

Counting Seeds When Time Counts

Vision-based seed counter minimizes time needed to obtain seed counts



Bullard Seed facilities and (left) OptiCount vision-based seed counter and gram scale in Bullard's quality control workspace. (Bullard Seed photos)

Bullard Seed Company

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Key Personnel

- Joel Bullard, Owner / President
- Matthew Bullard, Vice President
- Ryan Garrett, Partner

Company Profile

- Contract soybean and wheat seed production.
- Seed conditioning, bulk packaging, and warehouse services.
- 2,200 acre family farm for seed production.
- Family-owned business since 1946.

FOR BOTH SEED CONDITIONER and seed customer, determining accurate counts of seeds per pound is an important seed quality metric.

Maintaining and documenting seed quality through the entire production and conditioning process is one measure Bullard Seed Owner Joel Bullard uses to assure and satisfy his customers that their seed meets the highest quality standards.

"We typically take seed count reading every 20 minutes to stay on top of maintaining seed quality," says Bullard. "This is more than most customers require, but it is what we need to make certain that everything is operating properly."

In 2002, Bullard installed a Satake Scan Master optical sorter to remove purple stain and butter beans from that year's soybean harvest.

"I think we were one of the very first seed conditioners to use a Scan Master for soybeans," he recalls. "Using

a color sorter helped us improve our seed quality. The Scan Master worked well – we have had a fine relationship with Satake."

In 2012, Joel Bullard's son Matthew Bullard went to Satake's U.S. headquarters in Houston, TX, to look at its new Evolution color sorter. Immediately after seeing a demonstration, Matthew called home to report the Evolution is "100 times better" than the Scan Master.

In late 2011, Satake Evolution color sorter was installed to process the 2012 crop. About the same time, Cal Gray, Process Vision representative, began telling the Bullards about the new **Satake/Process Vision OptiCount vision-based seed counter**. (804-514-9189/www.processvis.com)

Time Savings

"We are confident that we had been getting accurate seed counts, but the process was extremely slow and time consuming," Joel says. "It was taking nearly 15 minutes to get each count with little time to spare before we needed to take the next sample. The OptiCount provides results in a matter of seconds – a major time saver."

To obtain a seed count, the operator simply weighs a 110-125 gram sample on a connected scale and pours it into the OptiCount. The sample is automatically vibrated to monolayer on the scanning tray. Within moments the sample is scanned and analyzed, the seeds are counted, and the seed count is calculated and displayed.

"The OptiCount is especially useful for wheat which was even slower to count than soybeans using the old system," Matthew says. "Being able to show our customers how we manage seed count results has helped us immensely."

Test results are automatically recorded in a Microsoft Excel data file. A fully automatic, inline OptiCount vision-based seed counter is also available.

Joe Funk, editor