

Corn Sizing Services

SHELLER RUN CORN SIZING/CLEANING, TREATING SERVICES, PACKAGING GROWOUTS (SIZE)

SoDak Labs can size sheller run corn lots (50–75 lbs) into 4–5 grades (24/19/16 or 24/19/15 and split Rounds and Flats on a 12/64 or 13/64 slot). Aspirating and color sorting is available as needed. SoDak Labs uses a Satake FMS 2000 color sorter for this. We can apply standard or customer supplied formulations of seed treatments and package for seed testing and/or winter grow outs. Trait and quality testing is available through the laboratory. Common tests include: germination, cold, pre-conditioned cold (Sept–Oct new crop only), traits (herbicide, insect, and drought tolerance), hybrid purity/ electrophoresis, sterile/fertile testing, and other custom tests as requested. "Size" = Sizing, growout packaging, and lab testing.

CORN DNA FERTILE TEST (PCR Fertile %)

A test for the percent of fertile seeds in a sample of corn can be completed with a DNA test immediately after harvest to determine the level of fertile seeds in a seed lot. The percent fertile in a sample is reported from a 96 seed test.

ISOZYME ELECTROPHORESIS (EP or EHV)

Starch gel electrophoresis separates proteins according to size. Different proteins code for isozymes which can be stained and identified. Depending on the female and male inbreds, hybrids will display the combined isozyme patterns of the parents. Hybrid purity is completed on 96 (EP) seeds and determines the percentage of true type, female selfs, offtypes, and variants. Hybrid verification can be completed on 30 (EHV) seeds by confirming the hybrid isozyme pattern that is exhibited by the female and male inbreds.

SIZED SEED GROWOUT PACKAGES

For companies who do their own sizing, we can treat, when required, and prepare grow outs on your sized seed. SoDak Labs can also conduct your grow outs in Puerto Rico. We can read the growouts or you can travel to Puerto Rico and read your own growouts. More information on Growout Services can be found at www.SoDakLabs.com/winter-growout

SHAKEOUT SERVICES (S04 & S064)

SHAKEOUT 4 (S04)

Prior to the shakeout, client specifies screens (example: 24/20/16) and SoDak will shakeout those sizes. The client can view discard percentage, percentage of sizes, and conversion to units for each shakeout size. This information is stored online.

SHAKEOUT 64 (S064)

SoDak Labs will shakeout your sheller run lots (50 pound submitted sample recommended) using small hand screens to provide data on each seed size between 25/64 and 15/64 along with seed counts for each size (see Figure 1). SoDak Labs has developed a corn size calculator that allows the client to go online and manipulate the size combinations to arrive at desired 80K bag weights (see Figure 2). The client receives an email with the data and then informs laboratory via phone or email of desired 4 grade sizes and the lab combines sizes and treats 4 grade sizes for further testing.

SMALL SEED LOT CONDITIONING

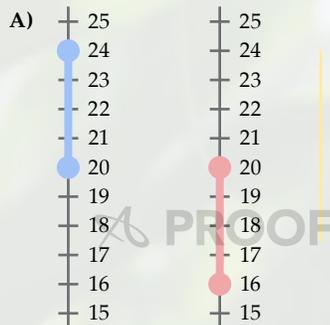
SoDak Labs offers small seed lot conditioning (500 to 1200 pound seed lots or similar), aspiration, color sorting, sizing, and treating. Customer supplies bags and treatments.

FIGURE 1. Example results from a sheller sample with Shakeout 64 (S064)

Screen Size	Total Wt. (g)	Good Wt. (g)	Good %	Discard Wt. (g)	Discard %	Good Kernels	Kernels/lb	Bag Wt. (lbs)
>25	19.60	19.60	100	0.00	0	51	1181.33	67.72
25/24R	33.70	33.70	100	0.00	0	85	1145.10	69.86
25/24F	47.80	47.80	100	0.00	0	136	1291.72	61.93
24/23R	128.50	128.50	100	0.00	0	340	1201.25	66.60
24/23F	136.00	135.10	99.34	0.90	.66	410	1377.79	58.06
23/22R	270.00	269.40	99.78	0.60	.22	740	1247.07	64.15
23/22F	208.10	208.10	100	0.00	0	673	1468.25	54.49
22/21R	296.20	295.70	99.83	0.50	.17	886	1360.31	58.81
22/21F	201.70	201.10	99.70	0.60	.30	704	1589.34	50.34
21/20R	211.50	211.20	99.86	0.30	.14	699	1502.59	53.24
21/20F	130.80	130.10	99.46	0.70	.54	492	1716.89	46.60
20/19R	153.20	151.90	99.15	1.30	.85	568	1697.64	47.12
20/19F	68.90	68.40	99.27	0.50	.73	287	1904.94	42.00
19/18R	51.60	51.00	98.84	0.60	1.16	222	1976.24	40.48
19/18F	12.90	12.00	93.02	0.90	6.98	57	2156.50	37.10
18/17R	13.20	12.90	97.73	0.30	2.27	67	2357.98	33.93
18/17F	3.30	2.40	72.73	0.90	27.27	14	2648.33	30.21
17/16R	2.60	2.30	88.46	0.60	11.54	13	2566.09	31.18
17/16F	2.40	0.90	97.50	1.50	62.50	6	3026.67	26.43
16/15R	0.20	0.00	0.0	0.20	100	0	--	--
16/15F	1.10	0.00	0.00	1.10	100	0	--	--
<15	4.30	0.00	0.00	4.30	100	0	--	--
Totals:	1997.60	1982.10		15.50				

FIGURE 2.
A) Set your splits and select plateless options.

B) Compare information and download the results in spreadsheet format.



B)

Screen	Bag Wt.	Bag Ct.	Unit %	Discard %
24/20 R	53.44	501	42.67	0.24
24/20 F	44.64	200	17.04	0.16
20/16 R	43.38	309	26.32	0.06
20/16 F	37.51	164	13.97	0.04
Total:		1174		
80K/bu:		1.17		