

8 GRAIN STORAGE TIPS

[View Original Article Here](#)

(Shared by Charles Hurburgh, Iowa State University Extension, Integrated Crop Management News)

Following basic principles of grain management will be important this year, as the high variability in quality will not leave much room for error. Here are some good management tips:

1. Immediate cooling after harvest (and drying) – shelf life begins right away.
2. Have adequate aeration (0.1 cfm/bu or more) – all bins with all grains should be aerated.
3. Run a cooling cycle every 10-15 degree average change in outside temperature, starting at harvest. With 0.1 cfm/bu, a cooling cycle will take about 150 hours; proportionately less for higher airflows.
4. Get grain below 40F as quickly as possible.
5. Take out the center core of fines. Variable quality and lower test weight will mean more fines.
6. Inspect grain and monitor temperature weekly until December; every two weeks thereafter. Automated temperature cable systems are very useful; the larger the bin the less likely a manual check will be adequate.
7. Responding to temperature change is as important as the actual temperature. A 3 to 5 degree change between readings, even if from 40 to 45 F, is indicative of spoilage if the fan had not been run in the interim.
8. Stay within temperature-moisture guidelines.


Maximum storage time (months); corn and soybeans*							
Temperature ° F	Corn, soybeans moisture content						
	13%, 11%	14%, 12%	15%, 13%	16%, 14%	17%, 15%	18%, 16%	24% N/A
40	150	61	29.0	15.0	9.4	6.1	1.3
50	84	34	16.0	8.9	5.3	3.4	0.5
60	47	19	9.2	5.0	3.0	1.9	0.3
70	26	11	5.2	2.8	1.7	1.1	0.2
80	15	6	2.9	1.6	0.9	0.9	0.06

*Based on 0.5% maximum dry matter loss—calculated on the basis of USDA research at Iowa State University. Corresponds to one grade number loss; 2-3% pts of Total Damaged seeds

Progressively used up through the storage season

IOWA STATE UNIVERSITY
Extension and Outreach

GRAIN STORAGE TEAM



Charles Hurburgh is a professor in the Iowa State University Department of Ag and Biosystems Engineering.