

# NATURAL GRAIN DRYING RESOURCES

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## CONSIDERATIONS IN NEW BIN CONSTRUCTION

- Grain depth is the largest hinderance to air flow. Build wider shorter bins. Eve less than 20'
- More Fans does not equal more air flow
- Have a fan calculation done to determine airflow
- Begin the process early, consider using a large storage bin that is filled to less than 20'.
- Invest in a top-quality spreader, gravity spreaders could be a good option
- Make sure grain is level in bin. Leveling grain may be required. Exercise caution when entering.
- Know your airflow rate. 1 CFM/Bu is a minimum. 2 CFM/Bu is better for moisture above 21%.
- Ensure that you have adequate venting. Minimum 1 vent per thousand bu.
- Consider vents higher in the peak. Tapered vents, or leave the lid open in favorable weather.
- Air will only flow where there is a path. Keep center vented to eliminate core spoilage.
- Understand the EMC (Equilibrium moisture content)
- Consider an ultra-low temp heater. They will raise the air temp 10 degrees
- A 10-degree temp rise will cut humidity in half
- Consider centrifugal fans. There is no real airflow advantage, but they are quiet.
- Understand that the fans will take days or weeks to dry the bin. You must commit!
- Patience! Remember, dry grain is worth much more than the cost to dry.
- Some helpful tools include: Static pressure gauge, temperature cables, grain sample probe.

## ADDITIONAL RESOURCES

- <https://www.ag.ndsu.edu/graindrying/documents/eb35.pdf>
- <https://cropwatch.unl.edu/2017/drying-soybeans-bin>
- [http://fieldcropnews.com/2018/12/how-to-dry-soybeans-in-a-bin\](http://fieldcropnews.com/2018/12/how-to-dry-soybeans-in-a-bin/)

## VIDEOS

Using a Low Temp Heater Agridry Webinar on EMC Agridry Video on Fans and Vents Static Pressure

\*Agridry was started in Edon, Ohio. They were acquired by GSI in 2016. Their products are no longer available, however, the information they have published is still relevant.