

## Advancing Grain Storage Management

# FAN AUTOMATION

Remove the guesswork and make decisions based on valuable and reliable data!









### PROTECT YOUR GRAIN FROM HARVEST TO MARKET

Increase your harvesting efficiencies, optimize grain value, reduce costs, and avoid significant losses by monitoring, responding and controlling conditions occurring inside your bin, anywhere and anytime.

The OPI Blue fan control system gives producers the ability to manage their stored grain remotely. Control your fans remotely to aerate your grain while delivering hourly grain storage information to your mobile or desktop devices, allowing you to access your critical grain storage information from the cloud.

With OPI Blue Fan Control, fans only run when the conditions are right to maintain your grain at the highest quality. Whether you're enjoying high grain prices you want to make sure every kernel gets to market to maximize your profits, or prices are low, and you need to squeeze every ounce of profitability, OPIsystems is your trusted partner.



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### INCREASE THE VALUE **OF YOUR GRAIN**

**OPI Blue with Fan control allows you to improve your** moisture control through more accurate drying and minimizing your shrink. Just a 1% improvement in your moisture control can add thousands of dollars into your pocket by maximizing the selling price of your grain.

Once installed an OPI Blue system continues to maximize the value of your grain season after season.

As an example, a 1% improvement in moisture control through more accurate drying and minimization of shrink on 200,000 bushels at an average cost of \$7.5/bushel, can increase the value of your grain up to \$15,000\*.



ENERGY SAVINGS



**COST EFFICIENT** 



**OPTIMIZE QUALITY** 

MAXIMIZE RETURN







### IMPORTANCE OF AUTOMATED GRAIN CONDITIONING

Grain conditioning increases the storage life of grain and minimizes grain spoilage and quality loss.

The primary conditioning operations are in-bin natural drying of grain to reduce the grain moisture, followed by aeration to cool the grain.

Adding optional supplemental heat to the automated grain conditioning process can significantly lower EMC enabling you to reach your drying targets faster, saving on your energy costs and increasing the value of your grain.

TERMINOLOGY	AIRFLOW IN CFM/BU	A
Aeration	.0825 (1/12 – 1/4)	Te to
Conditioning	.2550 (1/4 – ½)	Mo
<b>NAD</b> (Natural Air Drying)	.75 – 2.0 (3/4 – 2)	Dr ma
<b>NADH</b> (Natural Air Drying with Heat)	.75 – 2.0 (3/4 – 2)	Su dr



### APPLICATION

Temperature control only (shrink when run too long)

Moisture equilibrium of up to 2%

Drying up to 5% with <sup>3</sup>/<sub>4</sub> cfm/bus. 5% or maybe more with up to 2.0cfm/bus.

Supplemental heat up to 10°C/18°F max to lry up to 5%, or more with higher airflow



### ENERGY SAVINGS WITH AUTOMATION

Using OPI's modelling software, we were able to run simulations on two bins with Natural Air Drying (NAD) fan control mode for drying Corn from 2007 - 2016.

The cost-saving chart shown here compares the total energy consumption using automated NAD fan control versus the increase in energy consumption experienced if manual fan control was used with 10%, 20% and 30% more fan run time.

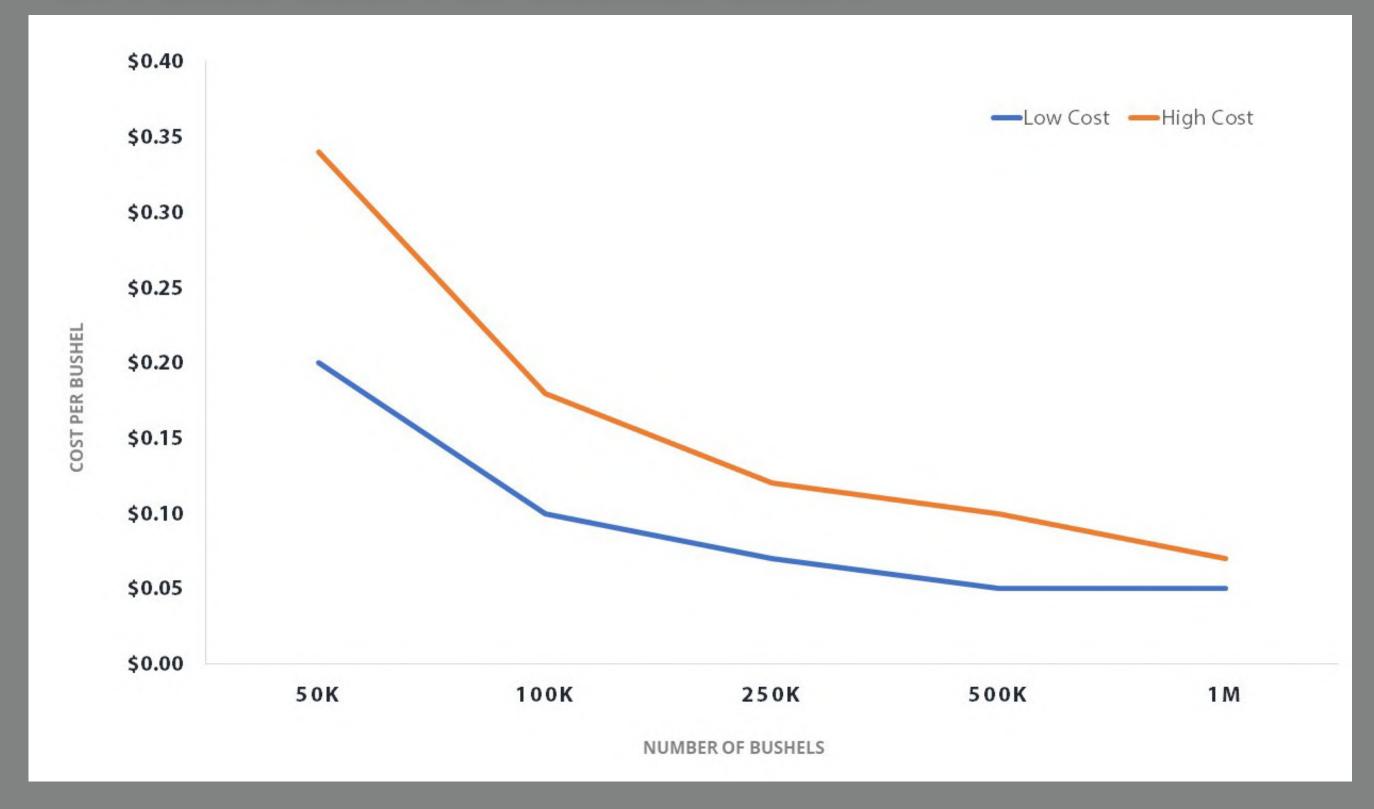
These cost savings shown are on a per bin basis, by reducing your electrical costs and taking the guesswork out of running your fans, OPI blue delivers monthly savings to the operator for every bin running an OPI Blue system.

Baseline		10% Fan Runtime	20% Fan Runtime	30% Fan Runtime
Fan Hours	312	343.2	374.4	405.6
Kilowatt Hours	9566.1	10522.7	11479.3	12435.9
Energy Cost	\$0.12/kwh	\$0.12/kwh	\$0.12/kwh	\$0.12/kwh
<b>Energy Cost Consumption</b>	\$1147.9	\$1262.7	\$1377.5	\$1492.3
Deficit		\$114.8	\$229.6	\$344.4

(The cost per KWH of energy consumption is based on February 6th 2019 average US price)



### **OPI Blue Cost Per Bushel Chart**

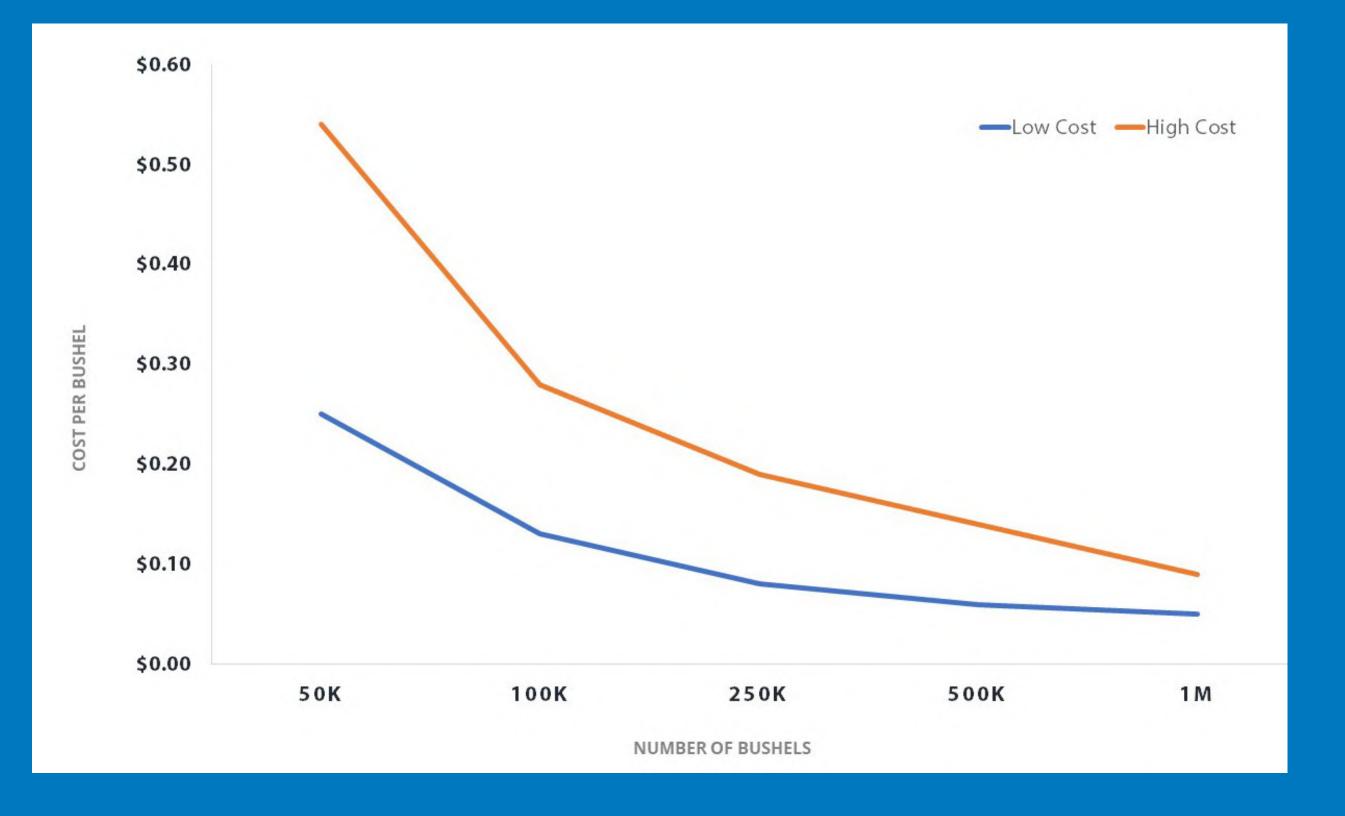


OPI Blue is one of the most cost-effective ways to manage and protect your grain, season after season and OPI Blue systems with fan control will continue to increase the value of your grain and reduce your energy costs.

On an average farm with 200,000 bushels, an OPI Blue system can be installed for as little as \$.10 - \$.30 per bushel\*, and give you peace of mind by protecting your grain and immediately start increasing the value of your grain.



### **OPI Blue with Fan Control Cost Per Bushel Chart**



\*OPI costs per bushel is an estimation based on an average sized farm and does not include shipping or installation costs which can vary by region. If you would like to find out what your cost per bushel is, reach out to our team to get a customized quote based on your farm and specific needs.



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PROTECT







## For more information please contact our team of professionals who will

