

# Case Study: Typical Petfood Drying Operation.

Full AeroPro Advanced Controls implementation provides up to 20% reduction in energy cost and a 1% increase in product yield.

Operating Conditions	Scenario 1	Scenario 2	Scenario 3	Scenario 4
	Current Situation	Humidity Control	Moisture and Evaporation Control	Humidity, Moisture, and Evaporation Control
Moisture In	30%	30%	30%	30%
Moisture Out	<b>7%</b>	7%	<b>8%</b>	<b>8%</b>
Input (kg/hr)	13,113	13,113	13,113	13,113
In Operation (hrs/day)	24	24	24	24
In Operation (days/yr)	350	350	350	350
In Operation (hrs/yr)	8,400	8,400	8,400	8,400
Cost of Fuel (\$/therm)	\$ 1	\$ 1	\$ 1	\$ 1
Dry Bulb Operating Temp (C°)	146	146	146	146
Wet Bulb Operating Temp (C°)	50	<b>56</b>	50	<b>56</b>
Output (kg/hr)	9,870	9,870	9,977	9,977
Energy Cost per Year	\$ 1,104,192	\$ 911,365	\$ 1,085,972	\$ 890,185
<b>Energy Savings</b>		<b>\$ 192,827</b>	<b>\$ 18,220</b>	<b>\$ 214,007</b>
<b>Additional Product to Sell (metric ton/yr)</b>			<b>901</b>	<b>901</b>
Finished Product Value (4/ton)	\$ 770	\$ 770	\$ 770	\$ 770
<b>Value of Additional Product</b>			<b>\$ 693,770</b>	<b>\$ 693,770</b>

Scenarios:

1. Product is frequently over-dried by 1-2% in order to remain below a targeted setpoint, and the dryer has too much exhaust.
2. Implement Humidity Control ONLY. Eliminates over-exhaust.
3. Implement Evaporation Control and Moisture Control ONLY. Corrects over-drying.
4. Implement Humidity Control, Evaporation Control, and Moisture Control to optimize dryer.

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