ONTARGET SPRAY SYSTEMS

APPLES 1,000 ACRES CASE STUDY

CONTACT US

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Background

In the U.S. west coast, managing pest control for 180,000 acres of apples poses significant operational and environmental challenges.

Growing pains currently facing air-blast sprayers.

Labor shortages
Fuel prices
Increased regulation
Tank refill time
Water use efficiency

This leads to higher costs and time-intensive applications.

In contrast, OnTarget sprayers offer a modernized approach designed to **optimize resources, improve efficiency**, and **enhance environmental stewardship**.

1,000 Acres- One Season Comparison		Air Blast	OnTarget Sprayer
Sprayer Tank Size	(Gallons)	400	400
Ground Speed While Spraying	(Miles Per Hour)	2.25	2.75
Water Used Per Acre	(Gallons)	125	40
Row Width	(Feet)	12	12
Boom Configuration	(# of Rows)	1	1
Fuel Consumption	(Gallons Per Hour)	5.25	2.75
Percentage of Label Rate Actually Used	(% Per Acre)	100%	100%

Trial Operation

Average Spray Applications Per Season	#	24
Cost of Fuel	(\$ Per Gallon)	\$4.50
Cost of Material	(\$ Per Acre)	\$75
Cost of Labor	(\$ Per Hour)	\$20
Field Size	(Acres)	1,000
Percentage of Label Rate Actually Used	(Acres)	100%

Total savings with OnTarget Sprayers:

\$301,032

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Time		
Air Blast	$\bigcirc \bigcirc $	14,796 Hrs
OnTarget	$\bigcirc \bigcirc \bigcirc \bigcirc$	8,400 Hrs
	6,396	Hours Saved
Water		
Air Blast	3,00	0,000 Gallons
OnTarget	96	0,000 Gallons
	2,040,000 0	Gallons Saved
Fuel		
Air Blast		\$262,872
OnTarget		\$89,760
	\$1	173,112 Saved
Materia	al	
Air Blast		\$1,800,000
OnTarget		\$1,800,000
1		\$0 Saved
Labor		
Air Blast		\$295,920
OnTarget	0.0	\$168,000
	\$1	127,920 Saved
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C	Time Savings Details	Air Blast Sprayer	OnTarget Sprayer
	Time Per Row	6.7 Minutes	5.5 Minutes
	Time Required to Spray Field Once	307.1 Hours	252.1 Hours
	Tank Fills Required to Spray Field Once	313	100
	Time Required to Fill Tank Once	30 Minutes	30 Minutes
	Total Fill Time	156.5 Hours	50 Hours
	Acres Sprayed Per Hour	2.2 Acres/Hr	3.3 Acres/Hr
	Acres Sprayed Per Tank	2 Acres/Tank	15 Acres/Tank
	Total Acres Sprayed Per Season	24,000 Acres	24,000 Acres
	Total Time Spent Filling Per Season	463.6 Hours	302.1 Hours
	Total Time Spraying Per Season	11,040 Hours	7,200 Hours



Water Savings Details	Air Blast Sprayer	OnTarget Sprayer
Sprayer Tank Fills Required	313	100
Water Required for One Field Pass	125,000 Gallons	40,000 Gallons

Fuel Savings Details	Air Blast Sprayer	OnTarget Sprayer
Gallons of Fuel Required for Field	2,434 Gallons	831 Gallons
Cost of Fuel Per Acre	\$10.95	\$3.74
Total Cost of Fuel for One Field Pass	\$10,953	\$3,740
Total Acres Sprayed Per Season	24,000 Acres	24,000 Acres
Total Cost of Fuel Per Season	\$262,872	\$89,760

Material Savings Details	Air Blast Sprayer	OnTarget Sprayer
Total Acres Sprayed Per Season	24,000 Acres	24,000 Acres
Average Material Cost Per Season	\$1,800,000	\$1,800,000

Case study Apples 1,000 Acres

Make the Switch

Unlock Massive Savings for the U.S. West Coast Apple Industry!



Water Savings







Fuel Efficiency



This reduction minimizes emissions and operational expenses, directly benefiting both the environment and the bottom line.







375,192 Hours Saved Per Season





Overall Cost Savings

\$54.1 M Per Season

These savings demonstrate the financial viability and operational benefits of transitioning to OnTarget technology.

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Conclusion: The OnTarget Transformation

By switching to OnTarget sprayers, U.S. west coast apple growers can significantly cut resource consumption, lower costs, and achieve sustainability goals. Outperforming traditional sprayers, OnTarget technology enhances scalability, maximizes financial savings, and establishes itself as an essential tool for modern apple farming.



TRY IT FOR FREE!

OnTarget Spray Systems

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We extend our sincere gratitude to the following contributors to this case study:

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