



# SPRAYER COMPARISON - WINE GRAPES



## On Target Conventional Sprayers



  **2 TRACTORS**




  **2 WORKERS**

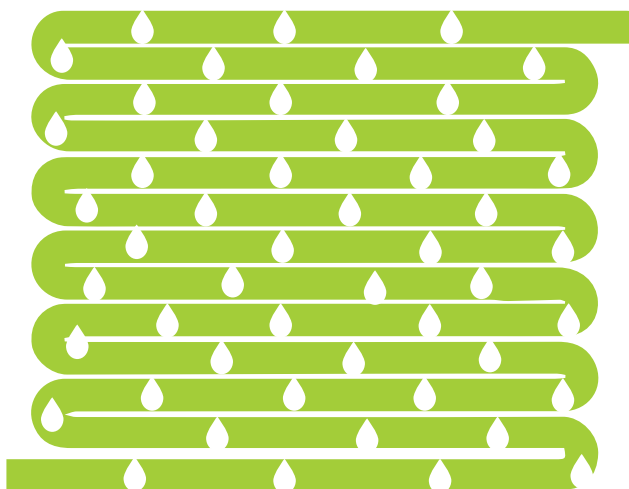
  **2 SPRAYERS**

VS

    **4 TRACTORS**

    **4 WORKERS**

    **4 SPRAYERS**

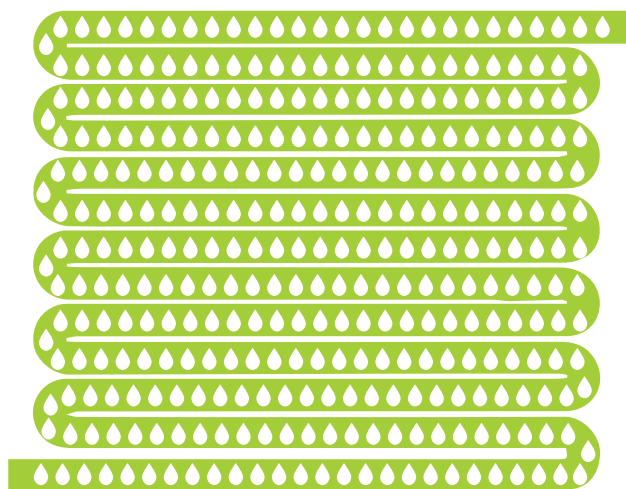


### ON TARGET GPA

**50 TANK REFILLS** (rounded)

1,000 acres x 15 GPA = 15,000 gallons of water  
15,000 gallons of water/300 gallon tank = 50 tank refills

TANK SIZE	MPH	# OF ROWS	ROW WIDTH
300	3.5	1	8 ft




### AIRBLAST GPA


**334 TANK REFILLS** (rounded)


1,000 acres x 100 GPA = 100,000 gallons of water  
100,000 gallons of water/300 gallon tank = 333.333333 tank refills


TANK SIZE	MPH	# OF ROWS	ROW WIDTH
300	3	1	8 ft

# On Target vs Conventional Sprayers

MODEL		TANK SIZE	MPH	ROWS	WIDTH	ACRES	APPLICATIONS	WATER GPA
	On Target	300 gal	3.5	1	8 ft	1,000	12	15
	Conventional	300 gal	3	1	8 ft	1,000	12	100

WATER		GALLONS	TANK FILLS	ON TARGET TOTAL SAVINGS:	
	On Target	180,000	50	<b>One Season</b> 1,020,000 gallons 284 fewer refills	<b>Five Seasons</b> 2,100,000 gallons 1,420 fewer refills
	Conventional	1,200,000	334		

LABOR		HOURS (Rate)	COST	ON TARGET TOTAL SAVINGS:	
	On Target	4,140 (\$20)	\$82,800	<b>One Season</b> \$79,680	<b>Five Seasons</b> \$398,400
	Conventional	8,124 (\$20)	\$162,480		

DIESEL		GALLONS	COST	ON TARGET TOTAL SAVINGS:	
	On Target	11,544	\$40,404	<b>One Season</b> \$72,240 20,640 gallons	<b>Five Seasons</b> \$361,200 103,200 gallons
	Conventional	32,184	\$112,644		

TOTAL SAVINGS:	One Season	Five Seasons
	\$151,920	\$759,600

Labor Savings Details	On Target	Conventional
Labor per row	4.3 mins	5 mins
Labor required to spray field once	295.6 hrs	343.8 hrs
Tank Fills required to spray field once	50	334
Labor required to fill tank once	30 mins	30 mins
Total fill time	25 hrs	167 hrs
Acres sprayed per hour	3.1 acres/hr	2 acres/hrs
Labor required to spray one acre	.32 hrs	.51 hrs
Total acra sprayed per season	12,000 acres	12,000 acres
Total labor spent filling per season	300 hrs	2,004 hrs
Total labor to spray field once, including filling	320.6 hrs	510.8 hrs
Total labor spraying per season	3,840 hrs	6,120 hrs

Water Savings Details	On Target	Conventional
Sprayer tank fills required	50	334
Water required for one field pass	15,000 gal	100,000

Diesel Savings Details	On Target	Conventional
Gallons of fuel required for field	962 gal	2,682 gal
Cost of fuel per acre	\$3.37	\$9.39
Total cost of diesel for one field pass	\$3,367	\$9,387
Total acres sprayed per season	12,000 acres	12,000 acres
Total cost of diesel per season	\$40,404	\$112,644

Materials Savings Details	On Target	Conventional
Total acres sprayed per season	12,000 acres	12,000 acres
Average material cost per season	\$720,000	\$720,000