

	Units				
Aircraft Manufacturer	-	Rotor	Robinson	Air Tractor	DJI
Aircraft Model	-	Sprayhawk	R44 Raven II	AT-502B	2x Agras T40
Aircraft Parameters					
MTOW	lbs	2500	2500	9400	198
Aircraft Empty Weight	lbs	1323	1506	4546	84
Spray System Weight	lbs	200	200	0	0
Number of Commercial Pilots	-	0	1	1	0
Number of Part 107 Pilots	-	2	0	0	2
Fuel Burn	gal/hr	15.000	15.000	50.000	3.2
Spray Speed	knots	55	50	100	13
Spray Width	ft	65	65	65	60
Turn Time	s	20	30	45	20
Ferry Speed	knots	70	70	110	19
Fuel Cost	\$/hr	\$105.00	\$105.00	\$300.00	\$12.68
Aircraft Planned Maintenance Cost	\$/hr	\$150.00	\$150.00	\$150.00	\$20.00
Aircraft Unplanned Maintenance Cost	\$/hr	\$75.00	\$75.00	\$75.00	\$20.00
Spray Speed					
Straight line acres per hour	acres/hour	499	453	907	109
Raw acres per hour (no refills)	acres/hour	349	286	330	99
Effective acres per hour (with refills)	acres/hour	240	193	255	42
DOC and Unit Economics					
Aircraft Engine Time Cost	\$/hr	\$330.00	\$330.00	\$525.00	\$52.68
Crew Cost	\$/hr	\$150.00	\$300.00	\$300.00	\$150.00
Total DOC	\$/hr	\$480.00	\$630.00	\$825.00	\$202.68
DOC Per Acre	\$/acre	\$2.00	\$3.27	\$3.23	\$4.87
% cost of R44		61%	100%	99%	149%
Assumptions					
Average size of field	acres	300			
Application rate	gal/acre	2			
Cost of Commercial Pilot	\$/hr	\$300.00			
Cost of Part 107 Pilot	\$/hr	\$75.00			
Cost of Spray Operator	\$/hr	\$50.00			
Cost of 1 gallon of avgas	\$	\$7.00			
Cost of 1 gallon of Jet A	\$	\$6.00			
Cost of 1 gallon of diesel	\$	\$4.00			