

Table 7A. Income and Cash Operating Cost Summary, Upland Cotton, 1996

COUNTY: Mohave	FARM: Mohave County Farm	WATER SOURCE: ColPum	TILLAGE: Conventional
CROP: Cotton, Upland	ACRES: 1.0	IRRIGATION SYSTEM: Flood Furrow	SOIL: Sandy-Loam
AREA: Mohave Valley	YIELD: 1,177.0 Lb/Acre	PREVIOUS CROP: Alfalfa Hay	DATE: 10/29/96

Item	Unit	Quantity	Price /Unit	Budgeted /Acre	Total /Acre	Your Farm Budget
INCOME -> Lint	Pound	1,177.00	\$0.7200	\$847.44		
Cottonseed	Ton	0.97	114.6000	111.16	\$958.60	
CASH LAND PREPARATION AND GROWING EXPENSES (including sales tax)						
Paid Labor (including benefits)					66.55	
Tractor/Self Propelled				24.51		
Hand				19.98		
Irrigation				22.05		
Chemicals & Custom Applications					218.38	
Fertilizers				82.82		
Insecticides				101.28		
Herbicides				25.39		
Other Chemicals				8.89		
Farm Machinery and Vehicles					37.20	
Diesel Fuel				18.46		
Repairs & Maint.				18.73		
Irrigation (excluding labor)					15.06	
Pump Energy - Elect.				13.55		
Repairs & Maint.				1.50		
Other Purchased Inputs & Services					12.07	
Seed/Transplants				9.07		
Other Services & Rentals				3.00		
TOTAL CASH LAND PREPARATION AND GROWING EXPENSES					349.25	
CASH HARVEST AND POST HARVEST EXPENSES						
Paid Labor (including benefits)					14.51	
Tractor/Self Propelled				6.80		
Other/Contract				7.71		
Chemicals & Custom Applications					37.70	
Other Chemicals				37.70		
Farm Machinery and Vehicles					46.85	
Diesel Fuel				8.55		
Repairs & Maint.				38.30		
Custom Harvest/Post Harvest					3.50	
Cotton Ginning					103.85	
Crop Assessments					8.41	
Other Materials					1.52	
TOTAL HARVEST AND POST HARVEST EXPENSE					216.34	
OPERATING OVERHEAD->PICKUP USE					15.27	
OPERATING INTEREST AT 8.0%					9.97	
TOTAL CASH OPERATING EXPENSES					\$590.83	
RETURNS OVER CASH OPERATING EXPENSES					\$367.77	

Notes: The above figures do not include ownership costs, see Table 7B on Next Page for detailed cost allocation.

Table 7B. Allocation of Ownership Costs; Upland Cotton, 1996

COUNTY: Mohave	FARM: Mohave County Farm	WATER SOURCE: ColPum	TILLAGE: Conventional
CROP: Cotton, Upland	ACRES: 1.0	IRRIGATION SYSTEM: Flood Furrow	SOIL: Sandy-Loam
AREA: Mohave Valley	YIELD: 1,177.0 Lb/Acre	PREVIOUS CROP: Alfalfa Hay	DATE: 10/29/96

Item	- CASH COST BASIS (\$/ACRE) -		- TOTAL COST BASIS (\$/ACRE) -	
	Income & Costs	Net Returns	Income & Costs	Net Returns
TOTAL INCOME at \$ 0.7200/Lb + 2nd Crop	\$958.60		\$958.60	
TOTAL OPERATING EXPENSES	590.82		590.82	
RETURN OVER CASH OPERATING EXPENSES		\$367.77		\$367.77
CASH OVERHEAD EXPENSES				
Taxes, Housing & Insur., Farm Machinery	8.10		8.10	
Wells & Irrig. System	0.66		0.66	
Gen. & Off. Overhead ( 5% of Tot. Oper. Exp.)	29.54		29.54	
General Farm Maint. ( 3% of Tot. Oper. Exp.)	17.72		17.72	
Total Cash Overhead Expenses	<u>56.02</u>		<u>56.02</u>	
Total Cash Oper. & Over. Cost	646.84		646.84	
RETURNS OVER CASH OPER. & OVER. EXPENSES.		311.75		311.75
CAPITAL ALLOCATIONS (100% Equity)				
Capital Replacement, Machinery & Vehicles			56.79	
Wells & Irrig. System			4.07	
Interest on Equity, Machinery & Vehicles			29.97	
Wells & Irrig. System			1.57	
Total Capital Allocations			<u>92.39</u>	
RETURNS TO LAND, CAPITAL, MANAGEMENT & RISK		311.75		
RETURNS TO LAND, MANAGEMENT & RISK				219.35
LAND COSTS / OWNERSHIP (100% Equity)				
Property Taxes (\$510 X 16% X .10038)	8.19		8.19	
Opport. Inter. on Land (100% X 6.0% X \$510)			30.60	
Total Land Costs	<u>8.19</u>		<u>38.79</u>	
RETURNS TO MANAGEMENT, CAPITAL & RISK		303.56		
RETURNS TO MANAGEMENT & RISK				180.56
Management Services ( 8% of Tot. Oper. Exp.)			47.26	
TOTAL OWNERSHIP COST	<u>64.21</u>		<u>234.47</u>	
TOTAL COST	<u>\$655.03</u>		<u>\$825.30</u>	
RETURN TO MANAGEMENT, CAPITAL & RISK		\$303.56		
RETURN TO RISK (PROFITS)				\$133.29
BREAK-EVEN PRICE TO COVER OPERATING COST (PER Lb)		\$0.4075		\$0.4075
BREAK-EVEN PRICE TO COVER OWNERSHIP COST		\$0.0545		\$0.1992
BREAK-EVEN PRICE TO COVER TOTAL COST		\$0.4620		\$0.6067

Table 7C. Variable Operating Costs; Upland Cotton, 1996

COUNTY: Mohave FARM: Mohave County Farm WATER SOURCE: ColPum TILLAGE: Conventional  
 CROP: Cotton, Upland ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam  
 AREA: Mohave Valley YIELD: 1,177.0 Lb/Acre PREVIOUS CROP: Alfalfa Hay DATE: 10/29/96

No.	First Month	Operation	— Hours * —		Operating Costs (\$/Acre*)				Total	Times	Tot. Cash Expense	Class
			Machine	Labor	Fuel/Rps.	Labor	Cust/Ser.	Materials				
1	Feb	Disk	0.300	0.333	4.77	2.80			7.57	1.0	7.57	L
2	Feb	Soil Fertility						3.00	3.00	1.0	3.00	G
3	Feb	Apply Fert/Ground	0.090	0.100	1.17	0.84		16.54	18.55	1.0	18.55	G
4	Feb	Disk	0.225	0.250	3.58	2.10			5.68	1.0	5.68	L
5	Feb	Laser Level	0.300	0.333	4.01	2.80			6.81	0.3	2.04	L
6	Feb	Landplane	0.209	0.233	3.48	1.96			5.44	0.7	3.81	L
7	Feb	Apply Herb. & Incorporate	0.180	0.200	3.23	1.68		19.70	24.61	1.0	24.61	G
8	Feb	List	0.113	0.125	1.67	1.05			2.72	1.0	2.72	L
9	Feb	Buck Rows	0.023	0.025	0.20	0.21			0.41	4.0	1.63	G
10	Feb	Preirrigate		0.500	2.01	3.50			5.51	1.0	5.51	G
11	Mar	Disk Ends	0.023	0.025	0.37	0.21			0.58	5.0	2.88	G
12	Mar	Mulch	0.225	0.250	4.43	2.10		18.67	25.20	1.0	25.20	L
13	Apr	Plant	0.150	0.167	1.99	1.40		9.07	12.46	1.0	12.46	L
14	Apr	Irrigate		0.294	1.51	2.06			3.57	7.0	24.99	G
15	Apr	Remove Cap	0.100	0.111	0.85	0.93			1.78	1.0	1.78	G
16	May	Apply Herbicide/Ground	0.180	0.200	1.72	1.68		4.85	8.25	0.2	1.65	G
17	May	Apply Herbicide/Ground	0.180	0.200	1.72	1.68		11.81	15.21	0.2	3.04	G
18	May	Cultivate	0.150	0.167	1.60	1.40			3.00	1.0	3.00	G
19	Jun	Cultivate	0.150	0.167	1.51	1.40			2.91	2.0	5.81	G
20	Jun	Irrigate/Run Fertilizer		0.294	1.25	2.06		23.81	27.12	2.0	54.24	G
21	Jun	Hand Weeding		3.000		19.98			19.98	1.0	19.98	G
22	Jul	Apply Insecticide/Air						6.00	8.15	1.0	8.15	G
23	Jul	Apply Insecticide/Air						6.00	10.23	1.0	16.23	G
24	Jul	Apply Herbicide/Ground	0.180	0.200	1.27	1.68		7.88	10.83	0.3	3.25	G
25	Aug	Apply Insecticide/Air						6.00	22.59	3.0	85.77	G
26	Sep	Prepare Ends	0.011	0.013	0.10	0.11			0.21	1.0	0.21	H
27	Sep	Apply Defoliant/Air						8.32	5.10	1.0	13.42	H
28	Oct	Apply Defoliant/Air						8.32	15.96	1.0	24.28	H
29	Oct	Cotton, First Pick	0.900	1.000	34.81	7.01			41.82	1.0	41.82	H

\* NOTES: See next page for notes.

Table 7C. Variable Operating Costs; Upland Cotton, 1996

COUNTY: Mohave FARM: Mohave County Farm WATER SOURCE: ColPum TILLAGE: Conventional  
 CROP: Cotton, Upland ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam  
 AREA: Mohave Valley YIELD: 1,177.0 Lb/Acre PREVIOUS CROP: Alfalfa Hay DATE: 10/29/96

No.	First Month	Operation	— Hours * —		Operating Costs (\$/Acre*)				Total	Times	Tot. Cash Expense	Class
			Machine	Labor	Fuel/Rps.	Labor	Cust/Ser.	Materials				
30	Oct	Cotton, Make Modules	0.450	0.500	5.34	4.20		1.35	10.89	1.0	10.89	H
31	Nov	Cotton, Second Pick	0.450	0.500	17.41	3.50			20.91	0.2	4.18	H
32	Nov	Cotton, Make Modules	0.225	0.250	2.67	2.10		0.34	5.11	0.5	2.56	H
33	Nov	Haul 6 MI							0.00	1.0	0.00	H
34	Oct	Cotton Ginning 34.6 Cs					103.85		103.85	1.0	103.85	P
35	Oct	Cotton Classing 2.3 Ba					3.50		3.50	1.0	3.50	M
36	Nov	Crop Assessment 2.3 Ba					8.41		8.41	1.0	8.41	M
37	Dec	Cotton, Rood	0.180	0.200	2.29	1.68			3.97	0.3	1.19	H
38	Dec	Cut Stalks	0.100	0.111	1.10	0.93			2.03	1.0	2.03	P
39	Dec	Disk Residue	0.225	0.250	3.58	2.10			5.68	1.0	5.68	L
		Pickup Use 60 Mi/Ac	2.000		15.26						15.26	O
		Operating Interest at 8.00%					9.99				9.99	O
TOTAL CASH OPERATING EXPENSES:					\$114.39	\$81.00	\$175.39	\$220.03			\$590.81	T

\* NOTES: Machine and labor hours and operating cost are for one time over the designated acreage. The 'Tot. Cash Expense' column and the 'TOTAL CASH OPERATING EXPENSES:' row include all operations, all times over. Classes are defined below.

OPERATING COST SUMMARY BY CLASS		SENSITIVITY OF NET REVENUES OVER TOTAL CASH EXPENSES (\$/Acre)							
		Prices ->		-25%	-10%	Budgeted	+10%	+25%	
Land Preparation (L)	\$65.14								
Growing (G)	284.07								
Harvest (H)	98.54	Yields		\$0.54	\$0.64	\$0.72	\$0.79	\$0.90	Break-even
Post Harvest (P)	105.87								
Marketing (M)	11.91	-25%	882.7	-60.04	35.29	98.85	162.40	257.74	0.60
Operating Overhead (O)	25.25	-10%	1,059.3	2.84	117.24	193.51	269.78	384.19	0.53
		Budgeted	1,177.0	44.76	171.88	256.62	341.37	468.48	0.50
Total (T)	\$590.81	+10%	1,294.7	86.69	226.51	319.73	412.95	552.78	0.47
		+25%	1,471.2	149.57	308.47	414.40	520.33	679.22	0.43
		Break-even Yield		1,051.31	806.71	698.39	615.71	522.86	

Table 7D. Resource and Cash Flow Requirements; Upland Cotton, 1996

COUNTY: Mohave FARM: Mohave County Farm WATER SOURCE: ColPum TILLAGE: Conventional  
 CROP: Cotton, Upland ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam  
 AREA: Mohave Valley YIELD: 1,177.0 Lb/Acre PREVIOUS CROP: Alfalfa Hay DATE: 10/29/96

Month *	Number Irrig.	Water Applied (Inches)	Total Labor (Hrs)	Operating Cost (\$/Acre)							
				Purchased Water	Fuel, Oil & Repairs	Labor	Chemicals	Other Purchases	Services	Total	
FEB C	0.5	4.0	1.02		11.94	8.29	18.12			3.00	41.36
MAR C	0.5	4.0	0.91		10.89	7.37	27.46				45.72
APR C	2.0	12.0	1.04		8.64	7.93	9.34		9.07		34.98
MAY C	1.0	6.0	0.92		7.38	7.37	3.33				18.07
JUN C	2.0	11.0	3.63		3.32	24.52	23.81				51.66
JUL C	2.0	11.0	0.64		3.14	4.63	38.55			12.00	58.32
AUG C	1.0	6.0	0.29		1.51	2.06	45.19			12.00	60.76
SEP C	1.0	6.0	0.33		1.97	2.38	27.69			14.32	46.36
OCT C			0.60		16.06	4.49	15.96		0.54	40.53	77.57
NOV C			0.97		24.89	7.36			0.91	57.88	91.05
DEC C			0.39		7.04	3.14			0.07	25.67	35.92
JAN N			0.18		2.34	1.52					3.85
Pickup Use 60 Mi/Ac					15.26						15.26
Operating Interest at 8.0%										10.00	10.00
<b>Total</b>	<b>10.0</b>	<b>60.0</b>	<b>10.97</b>		<b>114.39</b>	<b>81.06</b>	<b>209.45</b>	<b>10.59</b>		<b>175.41</b>	<b>590.90</b>
%					19.35	13.71	35.45	1.79		29.68	100.00

TOTAL RESOURCES REQUIREMENTS (/Acre)		TOTAL ENERGY REQUIREMENTS (/Acre)	
Total N	166.2 lbs	Diesel Fuel	25.0 Gal
Total P	98.6 lbs	Regular Gas	0.0 Gal
Total K	0.0 lbs	NonLead Gas	6.0 Gal
Total Labor	10.9 Hrs	Electricity/Pumping	218.8 KWH
Total Water	60.0 AI	All Direct Energy	4.9 M BTU

EQUIPMENT REQUIREMENTS (/Acre)			
Tractor, 150 PTO HP, MFWD	1.71 Hrs	Offset Disk, 13.5'	1.05 Hrs
Drag Scraper, 10'	0.09 Hrs	Laser Receiver, Mast System	0.09 Hrs
Landplane 14'X 60'	0.15 Hrs	Saddle Tk Sprayer, 2 Tk 8 Row	0.18 Hrs
Tractor, 100 PTO HP, MFWD	1.03 Hrs	Rowbuck, 10'	0.09 Hrs
Fertilizer Injector, 6 Row	0.23 Hrs	Planter, 4 Row	0.15 Hrs
Directed Spray Rig, 8 Row	0.13 Hrs	Cultivator, Sweep, 6 Rw	0.15 Hrs
Blade Scraper, 10'	0.01 Hrs	Cotton Picker, 2 Row	0.99 Hrs
Module Builder	0.56 Hrs	Rood, 3 Row W/Basket Cleaner	0.05 Hrs
Pickup Truck, 1/2 Ton	2.00 Hrs		
		Fertilizer Broadcaster, Towed	0.09 Hrs
		Laser Trailer	0.09 Hrs
		Lister, 7 Bottom	0.11 Hrs
		Rolling Cultivator, 6 Rw	0.53 Hrs
		Section Harrow, 3 Section	0.10 Hrs
		Tractor, 70 PTO HP, MFWD	0.05 Hrs
		Tractor, 60 PTO HP, MFWD	0.56 Hrs
		Flail Stalk Cutter, 4 Row	0.10 Hrs

MATERIALS REQUIREMENTS (/Acre)			
11-52-00, Dry	100.00 Lb	Trifluralin	1.00 Pt
Water, Pump	60.00 AI	10-34-00, Lqd	12.00 Ga
Fluazifop	0.10 Pt	Pyritiodac-sodium	0.08 Oz
Methyl Parathion	1.13 Pt	Mepiquat Chloride	0.31 Pt
Bifenthrin	11.52 Oz	Acephate	2.01 Lb
Sodium Chlorate	2.50 Ga	Module Tarps	28.99 CW
		Prometryn	4.60 Pt
		Upl Cotton Sd+NU-Flow ND	12.00 Lb
		32-00-00, URAN 32, Lqd	40.00 Ga
		Cytokinin	5.00 Oz
		Tribufos	1.00 Pt

LABOR REQUIREMENTS (/Acre)			
Tractor	3.72 Hrs	Irrigators	3.15 Hrs
Harvest	1.10 Hrs	Hand Weeders	3.00 Hrs

\* NOTE: P = Previous Year C = Current Year N = Next Year

COUNTY: Mohave FARM: Mohave County Farm WATER SOURCE: ColPum TILLAGE: Conventional  
 CROP: Cotton, Upland ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam  
 AREA: Mohave Valley YIELD: 1,177.0 Lb/Acre PREVIOUS CROP: Alfalfa Hay DATE: 10/29/96

No.	First Month	Times	Operation	Equipment/Custom Oper. HP	Self-Prop./Implem.	Job Rate Acres/Hr	Material Name	Use & Cost Appl. Rate	\$/Unit	Service Cost \$/Unit	Labor Type
1	Feb	1.0	Disk	150	Offset Disk, 13.5'	3.00					Tractor
2	Feb	1.0	Soil Fertility		CST Soil Analysis (Surf)					3.00 Ac	
3	Feb	1.0	Apply Fert/Ground	150	Fertilizer Broadcaster,	10.00	11-52-00, Dry	100.00 Lb	315.00 Tn		Tractor
4	Feb	1.0	Disk	150	Offset Disk, 13.5'	4.00					Tractor
5	Feb	0.3	Laser Level	150	Drag Scraper, 10' Laser Receiver, Mast Sy Laser Trailer	3.00					Tractor
6	Feb	0.7	Landplane	150	Landplane 14'X 60'	4.30					Tractor
7	Feb	1.0	Apply Herb. & Incorpo	150	Saddle Tk Sprayer, 2 Tk Offset Disk, 13.5'	5.00	Trifluralin Prometryn	1.00 Pt 4.00 Pt	30.06 Ga 30.00 Ga		Tractor
8	Feb	1.0	List	150	Lister, 7 Bottom	8.00					Tractor
9	Feb	4.0	Buck Rows	100	Rowbuck, 10'	40.00					Tractor
10	Feb	1.0	Preirrigate			2.00	Water, Pump	8.00 AI	3.01 AF		Irrigator
11	Mar	5.0	Disk Ends	150	Offset Disk, 13.5'	40.00					Tractor
12	Mar	1.0	Mulch	150	Rolling Cultivator, 6 R Fertilizer Injector, 6	4.00	10-34-00, Lqd	12.00 Ga	260.00 Tn		Tractor
13	Apr	1.0	Plant	100	Planter, 4 Row	6.00	Upl Cotton Sd+NU-F	12.00 Lb	72.00 CW		Tractor
14	Apr	7.0	Irrigate			3.40	Water, Pump	6.00 AI	3.01 AF		Irrigator
15	Apr	1.0	Remove Cap	100	Section Harrow, 3 Secti	9.00					Tractor
16	May	0.2	Apply Herbicide/Groun	100	Directed Spray Rig, 8	5.00	Fluazifop	0.50 Pt	73.91 Ga		Tractor
17	May	0.2	Apply Herbicide/Groun	100	Directed Spray Rig, 8	5.00	Pyritiodac-sodium	0.40 Oz	45.00 Lb		Tractor
18	May	1.0	Cultivate	100	Cultivator, Sweep, 6 Rw	6.00					Tractor
19	Jun	2.0	Cultivate	100	Rolling Cultivator, 6 R	6.00					Tractor
20	Jun	2.0	Irrigate/Run Fertiliz			3.40	Water, Pump 32-00-00, URAN 32,	5.00 AI 20.00 Ga	3.01 AF 205.00 Tn		Irrigator
21	Jun	1.0	Hand Weeding			0.50					Hand Weed
22	Jul	1.0	Apply Insecticide/Air		CST Air Spray, 3 Gal Mi		Methyl Parathion Mepiquat Chloride Cytokinin	0.13 Pt 0.06 Pt 1.00 Oz	23.54 Ga 103.28 Ga 28.55 Qt	6.00 Ac	
23	Jul	1.0	Apply Insecticide/Air		CST Air Spray, 3 Gal Mi		Methyl Parathion Mepiquat Chloride Cytokinin	1.00 Pt 0.25 Pt 4.00 Oz	23.54 Ga 103.28 Ga 28.55 Qt	6.00 Ac	
24	Jul	0.3	Apply Herbicide/Groun	70	Directed Spray Rig, 8	5.00	Prometryn	2.00 Pt	30.00 Ga		Tractor
25	Aug	3.0	Apply Insecticide/Air		CST Air Spray, 3 Gal Mi		Bifenthrin Acephate	3.84 Oz 0.67 Lb	511.12 Ga 9.23 Lb	6.00 Ac	
26	Sep	1.0	Prepare Ends	100	Blade Scraper, 10'	80.00					Tractor
27	Sep	1.0	Apply Defoliant/Air		CST Air Spray, 5 Gal Mi		Tribufos	1.00 Pt	38.82 Ga	8.32 Ac	
28	Oct	1.0	Apply Defoliant/Air		CST Air Spray, 5 Gal Mi		Sodium Chlorate	2.50 Ga	6.08 Ga	8.32 Ac	
29	Oct	1.0	Cotton, First Pick		Cotton Picker, 2 Row	1.00					Harvest
30	Oct	1.0	Cotton, Make Modules	60	Module Builder	2.00	Module Tarps	25.77 CW	0.05 CW		Tractor
31	Nov	0.2	Cotton, Second Pick		Cotton Picker, 2 Row	2.00					Harvest
32	Nov	0.5	Cotton, Make Modules	60	Module Builder	4.00	Module Tarps	6.44 CW	0.05 CW		Tractor
33	Nov	1.0	Haul		CST Haul Cotton Modules					0.00 Mu	
34	Oct	1.0	Cotton Ginning		CST Gin Upland Cotton					3.00 Cs	

NOTES at the bottom of the next page.

Table 7E Schedule of Operations; Upland Cotton, 1996

COUNTY: Mohave	FARM: Mohave County Farm	WATER SOURCE: ColPum	TILLAGE: Conventional
CROP: Cotton, Upland	ACRES: 1.0	IRRIGATION SYSTEM: Flood Furrow	SOIL: Sandy-Loam
AREA: Mohave Valley	YIELD: 1,177.0 Lb/Acre	PREVIOUS CROP: Alfalfa Hay	DATE: 10/29/96

No.	Month	First Times	Operation	Equipment/Custom Oper.		Job Rate Acres/Hr	Material Use & Cost		Service Cost \$/Unit	Labor Type
				HP	Self-Prop./Implem.		Name	Appl. Rate \$/Unit		
35	Oct	1.0	Cotton Classing		CST Class Cotton, HVI			1.50	Ba	
36	Nov	1.0	Crop Assessment		CST Upland (Low Elev)			3.60	Ba	
37	Dec	0.3	Cotton, Rood	100	Rood, 3 Row W/Basket Cl	5.00				Tractor
38	Dec	1.0	Cut Stalks	100	Flail Stalk Cutter, 4 R	9.00				Tractor
39	Dec	1.0	Disk Residue Pickup Use 60 Mi/Ac	150	Offset Disk, 13.5' Pickup Truck, 1/2 Ton	4.00 0.50				Tractor

\* NOTE: Machine times, labor times, and material rates are for one time over the designated acreage.

ARIZONA COOPERATIVE EXTENSION  
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