

2019 Crop Plan and Cash Flow Requirements

Farm Name: Brown Family Farms
 County: Washington
 State: SE USA
 Crop Year: 2019

BREAKEYEN EBITDA Requirements (EBITDA-Earnings Before Interest, Taxes, Depreciation & Amortization)

Family living & taxes	260,000	Operating	Term Debt	
Interest Expense	173,812	136,119	37,693	From Balance Schedules
Term Debt Principal Due	364,462	From Balance Sheet		
BREAKEYEN Profit Needed	798,274	EBITDA Required		

Other Information Needed

Non-Crop Income	2019 Projected	Financial Position as of	43,465
Government Payments		Current Assets	2,849,602
ARC/PLC Payments	165,600	Current Liabilities	3,120,247
EQIP		Total Assets	8,035,252
Conservation Security Payments		Total Liabilities	3,726,495
	165,600	Owner Equity	4,308,757
Other farm income (including Livestock EBITDA)		Working Capital	(270,645)
Custom work income	38,000		
Refunds/Patronages	2,000		
Other Farm Income	-		
	40,000		
Total Non-Crop Income	205,600		

Enterprise Plan

Select Crop	Practice	Planted Acres	Double Crop		Expected Yield		MPCI Coverage %	Operating Cost Per Acre
			Acres	Sales Units	Per Acre	Harvest Basis		
1 Corn - CZ	Irrigated	1,000.0		BU	200	0.50	75%	\$651
2 Soybeans	Dryland	1,998.0		BU	35	0.10	50%	\$345
3 Tobacco, FC	Dryland	300.0		LBS	2,400	0.00	65%	\$4,164
4 Sweet Potatoes, FM	Dryland	400.0		BU	565	0.00	50%	\$3,993
5 Cucumbers, Pickle	Irrigated	150.0		CWT	120	0.00	50%	\$1,599
6 Squash, Yellow	Irrigated	150.0		1.1 Bu	250	0.00	50%	\$2,792
7 Sweet Corn, Local	Irrigated	150.0		Dzn	1,875	0.00	50%	\$3,062
8 Tomatoes	Irrigated	100.0		25# Box	1,500	0.00	50%	\$13,741
9 Watermelon	Irrigated	125.0		BIN	450	0.00	50%	\$6,254
10 Cantaloupes	Irrigated	125.0		Each	6,000	0.00	50%	\$4,495
11 Cotton	Dryland	1.0		LBS	900	0.01	75%	\$539
12 Peanuts, Virginia	Dryland	1.0		LBS	3,800	0.00	70%	\$766
13 Select Crop based on your PRACTICES								\$0
14 Select Crop based on your PRACTICES								\$0
15 Select Crop based on your PRACTICES								\$0
16 Select Crop based on your PRACTICES								\$0
17 Select Crop based on your PRACTICES								\$0
18 Select Crop based on your PRACTICES								\$0
		Crop Acres	D/C Acres	Land Acres				
Total		4,500	0	4,500				

Step 1 Determine operating profit requirements.

			Total	/ Land Acres	= Per Acre
1 +	Family living & taxes	FL	260,000	4,500	58
2 +	Interest	I	173,812	4,500	39
3 +	Principal payments	D	364,462	4,500	81
4 =	BREAKEVEN EBITDA	<i>(Line 1 + Line 2 + Line 3)</i>	798,274	4,500	177
5 -	* Non-crop Income	From table below	-205,600	4,500	-46
6 =	BREAKEVEN CROP EBITDA	<i>(Line 4 - Line 5)</i>	592,674	4,500	132
7 -	** Working Capital Burn	From table below	270,645	4,500	60
8 =	CASH FLOW CROP EBITDA	<i>(Line 6 - Line 7)</i>	863,319	4,500	192
9 +	GROWTH	<i>(Line 4 / "4")</i>	199,569	4,500	44
10 =	GROWTH CROP EBITDA	<i>(Line 6 +Line 9)</i>	792,243	4,500	176

* Estimate non-crop sources of income.		Current Working Capital		** Working Capital Burn Rate	
+ Government Payments	165,600	Current Assets	2,849,602	Working Capital	\$ (270,645)
+ Other farm income	40,000	- Current Liabilities	3,120,247	To last	1 years
= Non Crop Revenue	\$ 205,600	= Working Capital	\$ (270,645)	= WC Burn/YR	\$ (270,645)

Step 2 Calculate BREAK-EVEN prices

Covers FLOID

	<u>Corn - CZ</u> <i>Irrigated</i>	<u>Soybeans</u> <i>Dryland</i>	<u>Tobacco, FC</u> <i>Dryland</i>	<u>Sweet Potatoes, FM</u> <i>Dryland</i>	<u>Cucumbers, Pickle</u> <i>Irrigated</i>	<u>Squash, Yellow</u> <i>Irrigated</i>
*** Land Acres Allocation	100%	100%	100%	100%	100%	100%
Operating Cost	651	345	4,164	3,993	1,599	2,792
+ BREAKEVEN CROP EBITDA	132	132	132	132	132	132
= BREAKEVEN Crop Revenue	783	477	4,296	4,125	1,731	2,924
/ Expected Yield	200	35	2,400	565	120	250
= BREAKEVEN CROP Price	\$3.91	\$13.62	\$1.79	\$7.30	\$14.42	\$11.69

Step 3 Calculate CASH FLOW prices.

Covers FLOID by using 100% of available working capital.

	<u>Corn - CZ</u>	<u>Soybeans</u>	<u>Tobacco, FC</u>	<u>Sweet Potatoes, FM</u>	<u>Cucumbers, Pickle</u>	<u>Squash, Yellow</u>
Operating Cost	651	345	4,164	3,993	1,599	2,792
+ CASH FLOW CROP EBITDA	192	192	192	192	192	192
= CASH FLOW Revenue Required	843	537	4,356	4,185	1,791	2,984
/ Expected Yield	200	35	2,400	565	120	250
= CASH FLOW CROP Price	\$4.21	\$15.34	\$1.81	\$7.41	\$14.92	\$11.94

Step 4 Calculate GROWTH prices.

Covers FLOID + Uncertainty ==> "Get a DUCK!"

	<u>Corn - CZ</u>	<u>Soybeans</u>	<u>Tobacco, FC</u>	<u>Sweet Potatoes, FM</u>	<u>Cucumbers, Pickle</u>	<u>Squash, Yellow</u>
Operating Cost	651	345	4,164	3,993	1,599	2,792
+ GROWTH EBITDA Goal	176	176	176	176	176	176
= GROWTH Revenue Required	827	521	4,340	4,169	1,775	2,968
/ Expected Yield	200	35	2,400	565	120	250
= GROWTH CROP Price	\$4.14	\$14.89	\$1.81	\$7.38	\$14.79	\$11.87

Step 5 Develop and implement marketing plan

*** Land Acre Allocation (Planted Acres - DC Acres/2) / Planted Acres

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Step 1 Determine operating profit requirem

			Total	/ Land Acres	= Per Acre
1 +	Family living & taxes	FL	260,000	4,500	58
2 +	Interest	I	173,812	4,500	39
3 +	Principal payments	D	364,462	4,500	81
4 =	BREAKEVEN EBITDA	<i>(Line 1 + Line 2 + Line 3)</i>	798,274	4,500	177
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10 =	GROWTH CROP EBITDA	<i>(Line 6 +Line 9)</i>	792,243	4,500	176

* Estimate non-crop sources of income.		Current Working Capital		** Working Capital Burn Rate	
+ Government Payments	165,600	Current Assets	2,849,602	Working Capital	\$ (270,645)
+ Other farm income	40,000	- Current Liabilities	3,120,247	To last	1 years
= Non Crop Revenue	\$ 205,600	= Working Capital	\$ (270,645)	= WC Burn/YR	\$ (270,645)

Step 2 Calculate BREAK-EVEN prices

Covers FLOID

	<u>Sweet Corn, Local</u>	<u>Tomatoes</u>	<u>Watermelon</u>	<u>Cantaloupes</u>	<u>Cotton</u>	<u>Peanuts, Virginia</u>
	<i>Irrigated</i>	<i>Irrigated</i>	<i>Irrigated</i>	<i>Irrigated</i>	<i>Dryland</i>	<i>Dryland</i>
*** Land Acres Allocation	100%	100%	100%	100%	100%	100%
Operating Cost	3,062	13,741	6,254	4,495	539	766
+ BREAKEVEN CROP EBITDA	132	132	132	132	132	132
= BREAKEVEN Crop Revenue	3,194	13,873	6,386	4,627	671	898
/ Expected Yield	1,875	1,500	450	6,000	900	3,800
= BREAKEVEN CROP Price	\$1.70	\$9.25	\$14.19	\$0.77	\$0.75	\$0.24

Step 3 Calculate CASH FLOW prices.

Covers FLOID by using 100% of available working capital.

	<u>Sweet Corn, Local</u>	<u>Tomatoes</u>	<u>Watermelon</u>	<u>Cantaloupes</u>	<u>Cotton</u>	<u>Peanuts, Virginia</u>
Operating Cost	3,062	13,741	6,254	4,495	539	766
+ CASH FLOW CROP EBITDA	192	192	192	192	192	192
= CASH FLOW Revenue Required	3,254	13,933	6,446	4,687	731	958
/ Expected Yield	1,875	1,500	450	6,000	900	3,800
= CASH FLOW CROP Price	\$1.74	\$9.29	\$14.32	\$0.78	\$0.81	\$0.25

Step 4 Calculate GROWTH prices.

Covers FLOID + Uncertainty ==> "Get a DUCK!"

	<u>Sweet Corn, Local</u>	<u>Tomatoes</u>	<u>Watermelon</u>	<u>Cantaloupes</u>	<u>Cotton</u>	<u>Peanuts, Virginia</u>
Operating Cost	3,062	13,741	6,254	4,495	539	766
+ GROWTH EBITDA Goal	176	176	176	176	176	176
= GROWTH Revenue Required	3,238	13,917	6,430	4,671	715	942
/ Expected Yield	1,875	1,500	450	6,000	900	3,800
= GROWTH CROP Price	\$1.73	\$9.28	\$14.29	\$0.78	\$0.79	\$0.25

Step 5 Develop and implement marketing p

*** Land Acre Allocation (Planted Acres - DC Acres/2) / Planted Acres

Brown Family Farms

Crop	Total	Corn - CZ	Soybeans	Tobacco, FC	Sweet Potatoes, FM	Cucumbers, Pickle	Squash, Yellow
Intended Acres	4,500	1,000	1,998	300	400	150	150
Expected Yield		200	35	2,400	565	120	250
Operating Expenses / Acre		475	575	269	375	500	175
* Cash BREAKEVEN Price Target		\$3.91	\$13.62	\$1.79	\$7.30	\$14.42	\$11.69
Less: Expected Harvest Basis		\$0.50	\$0.10	\$0.00	\$0.00	\$0.00	\$0.00
Futures BREAKEVEN Price Target		\$3.41	\$13.52	\$1.79	\$7.30	\$14.42	\$11.69

Futures - Commodity Pricing Signals

		Crop Revenue	Corn - CZ	Soybeans	Tobacco, FC	Sweet Potatoes, FM	Cucumbers, Pickle	Squash, Yellow
Growth	Futures Price	\$8,815,933	\$3.64	\$14.79	\$1.81	\$7.38	\$14.79	\$11.87
	DUCK Value Crop Revenue	\$199,569	-\$0.22 \$827,054	\$1.27 \$1,041,066	\$0.02 \$1,302,016	\$0.08 \$1,667,622	\$0.37 \$266,258	\$0.18 \$445,208
Breakeven	Futures Price	\$8,616,364	\$3.41	\$13.52	\$1.79	\$7.30	\$14.42	\$11.69
	Crop Revenue		\$782,705	\$952,457	\$1,288,712	\$1,649,882	\$259,606	\$438,556
Cash Flow	Futures Price	\$8,887,009	\$3.71	\$15.24	\$1.81	\$7.41	\$14.92	\$11.94
	WC Burned Crop Revenue	-\$270,645	-\$0.30 \$842,849	-\$1.72 \$1,072,624	-\$0.03 \$1,306,755	-\$0.11 \$1,673,939	-\$0.50 \$268,627	-\$0.24 \$447,577

GROWTH price covers FLOID and allocates 25% of Operating Profit to Equity Growth "Get a DUCK!"

BREAKEVEN price covers FLOID. (The difference between the GROWTH and BREAKEVEN is the value of a DUCK)
CASH FLOW price covers FLOID by burning 100% of available working capital.

PLANNING CONSIDERATIONS

PRICE OFFERS As of: 31-Dec-18	Futures Price Crop Revenue DUCKS	\$9,496,936 Equity Growth \$880,572	\$4.00 \$900,000 3	\$9.25 \$653,846 (3)	\$1.95 \$1,404,000 9	\$8.75 \$1,977,500 18	\$16.67 \$300,060 6	\$17.60 \$660,000 33
Zero Based Operating Cost 31-Dec-18	Expected Operating BE Operating Required Change		\$475 \$475 0%	\$575 \$426 -26%	\$269 \$269 0%	\$375 \$375 0%	\$500 \$500 0%	\$175 \$175 0%
Crop Insurance Production Guarantee Breakeven Prices	Expected Yield Coverage Level Guaranteed Yield BE Cash Target BE Futures Target		200 75% 150 \$5.22 \$4.72	35 50% 18 \$27.24 \$27.14	2,400 65% 1,560 \$2.75 \$2.75	565 50% 283 \$14.60 \$14.60	120 50% 60 \$28.85 \$28.85	250 50% 125 \$23.39 \$23.39

* Price Targets represent the sum of Cash Sales, Futures/Options profit/loss, LDP or Market Gains, and Crop Insurance Indemnities

For calculating the pricing targets the following assumptions were made:

Expected family living	\$260,000
Interest - Operating	\$136,119
Interest - Term Debt	\$37,693
Term Principal payments due	\$364,462
Non-crop Income	\$205,600
Beginning Working Capital	-\$270,645

See **Per Acre Planning** for Operating Cost calculations.

See **CASH Commodity Pricing Signals** for cash breakeven price signals

Brown Family Farms

Crop	Total	Sweet Corn, Local	Tomatoes	Watermelon	Cantaloupes	Cotton	Peanuts, Virginia
		Irrigated	Irrigated	Irrigated	Irrigated	Dryland	Dryland
Intended Acres	4,500	150	100	125	125	1	1
Expected Yield		1,875	1,500	450	6,000	900	3,800
Operating Expenses / Acre		250	225	4,300	3,500	0	0
* Cash BREAKEVEN Price Target		\$1.70	\$9.25	\$14.19	\$0.77	\$0.75	\$0.24
Less: Expected Harvest Basis		\$0.00	\$0.00	\$0.00	\$0.00	\$0.01	\$0.00
Futures BREAKEVEN Price Target		\$1.70	\$9.25	\$14.19	\$0.77	\$0.74	\$0.24

Futures - Commodity Pricing Signals

	Crop Revenue	Sweet Corn, Local	Tomatoes	Watermelon	Cantaloupes	Cotton	Peanuts, Virginia
Growth	Futures Price	\$8,815,933	\$1.73	\$9.28	\$14.29	\$0.78	\$0.25
	DUCK Value	\$199,569	-\$0.02	\$0.03	\$0.10	\$0.01	\$0.05
	Crop Revenue		\$485,708	\$1,391,705	\$803,757	\$583,882	\$715
Breakeven	Futures Price	\$8,616,364	\$1.70	\$9.25	\$14.19	\$0.77	\$0.24
	Crop Revenue		\$479,056	\$1,387,271	\$798,213	\$578,338	\$671
							\$898
Cash Flow	Futures Price	\$8,887,009	\$1.74	\$9.29	\$14.32	\$0.78	\$0.25
	WC Burned	-\$270,645	-\$0.03	-\$0.04	-\$0.13	-\$0.01	-\$0.07
	Crop Revenue		\$488,077	\$1,393,285	\$805,731	\$585,856	\$731

GROWTH price covers FLOID and allocates 25% of Operating F

BREAKEVEN price covers FLOID. (The difference between the CASH FLOW price covers FLOID by burning 100% of available)

PLANNING CONSIDERATIONS

PRICE OFFERS As of: 31-Dec-18	Futures Price	\$9,496,936	\$2.40	\$8.50	\$16.00	\$1.00	\$0.74	\$0.23
	Crop Revenue DUCKS	Equity Growth \$880,572	\$675,000 29	\$1,275,000 (25)	\$900,000 18	\$750,000 31	\$675 0	\$855 (1)
Zero Based Operating Cost 31-Dec-18	Expected Operating		\$250	\$225	\$4,300	\$3,500	\$0	\$0
	BE Operating Required Change		\$250 0%	-\$898 -499%	\$4,300 0%	\$3,500 0%	\$0 0%	-\$43 0%
Crop Insurance Production Guarantee Breakeven Prices	Expected Yield		1,875	1,500	450	6,000	900	3,800
	Coverage Level		50%	50%	50%	50%	75%	70%
	Guaranteed Yield		938	750	225	3,000	675	2,660
	BE Cash Target		\$3.41	\$18.50	\$28.38	\$1.54	\$0.99	\$0.34
	BE Futures Target		\$3.41	\$18.50	\$28.38	\$1.54	\$0.98	\$0.34

* Price Targets represent the sum of Cash

For calculating the pricing targets the following ass

Expected family living	\$260,000
Interest - Operating	\$136,119
Interest - Term Debt	\$37,693
Term Principal payments due	\$364,462
Non-crop Income	\$205,600
Beginning Working Capital	-\$270,645

See Per Acre Planning for Operating Cost calculation:
See CASH Commodity Pricing Signals for cash breake