

## Catfish Cost of Production Formulation with Feed Cost Changes

Cost of Catfish Production, in \$/lb, formula with \$250/ton of 32% protein floating feed as the BASE price =

- \$ 0.30 (variable cost excluding feed cost)
- + \$ 0.31 (variable feed cost, including interest of loan to purchase feed, and without the feed cost index adjustment)
- + (Feed Cost Index Number x \$0.0123646); this is the feed cost adjustment factor
- + \$0.144 (fixed costs)

### Table Columns

- (1) Variable Costs Excluding Feed Costs, on a \$/lb basis, include costs for: labor (management and hired), fingerlings, transport of harvested fish, fuel and lubricants, electricity, repairs and maintenance, bird chasing, chemicals (salt, diuron, and copper sulfate), miscellaneous expenses, and short-term interest on loans to purchase the previous inputs.
- (2) Variable Feed Costs Without Adjustment, on a \$/lb basis, includes the quantity of feed fed and short-term interest on loans to purchase feed.
- (3) The Index Number is an integer based on \$250/ton of feed being the base price with an index number of zero (0). For each \$10/ton increment the index number changes by one (1) unit. If the price of feed increases to \$260/ton then the index number is +1; if the price of feed increases to \$400/ton the index number is 15. The Index Number is multiplied by \$0.0123646.
- (4) Amount of Variable Feed Cost Adjustment for Change in Feed Cost (\$/lb) – takes the feed cost index adjustment number and multiplies it by \$0.0123646.
- (5) Adjusted Variable Feed Cost (\$/lb) – this adds Column (2) or the base feed price of \$0.31/lb to the (index number x \$0.0123646) to provide the total variable feed costs for each feed cost (\$/ton)
- (6) Fixed Costs, on a \$/lb basis, include land, machinery/equipment depreciation, pond depreciation, land taxes, interest on pond construction loans, interest on equipment/machinery loans, unpaid family labor and management, as well as other fixed business expenses such as telephone, accounting/legal, supplies and administrative office supplies, general liability insurance and insurance on equipment and machinery.
- (7) Fixed Plus Variable Costs, on a \$/lb basis – there are two methods of calculating the final cost of production: 1) adding Column (1) + Column (2) + (Column (3) x 0.0123646) + Column (6); or 2) adding Column (1) + Column (5) + Column (6), both will provide the same final cost. Column (7) is the cost of producing price given the indexed feed cost for 32% protein floating catfish feed, other variable cost, and all land, capital, and management charges.

**Cost of Production Formula = Column (1) + (Column (2) + (Index Number x \$0.0123646)) + (6) = (7) OR (1) + (5) + (6) = (7)**

Feed Price, \$/ton	Variable Costs Excluding Feed Cost (\$/lb) (1)	Variable Feed Costs Without Adjustment (\$/lb) (2)	Index Number with \$250/ton as the Base =0 (3)	Amount of Variable Feed Cost Adjustment for Change in Feed Cost (\$/lb) (4)	Adjusted Variable Feed Cost (\$/lb) (5)	Fixed Costs (\$/lb) (6)	Fixed Plus Variable Costs (\$/lb) (1)+(5)+(6) (7)
190	0.30		-6	-0.074	0.235	0.144	0.68
200	0.30		-5	-0.062	0.247	0.144	0.69
210	0.30		-4	-0.049	0.260	0.144	0.70
220	0.30		-3	-0.037	0.272	0.144	0.72
230	0.30		-2	-0.025	0.284	0.144	0.73
240	0.30		-1	-0.012	0.297	0.144	0.74
<b>BASE 250</b>	<b>0.30</b>	<b>0.309</b>	<b>0</b>	<b>0.000</b>	<b>0.309</b>	<b>0.144</b>	<b>0.75</b>
260	0.30		1	0.012	0.321	0.144	0.77
270	0.30		2	0.025	0.334	0.144	0.78
280	0.30		3	0.037	0.346	0.144	0.79
290	0.30		4	0.049	0.359	0.144	0.80
300	0.30		5	0.062	0.371	0.144	0.81
310	0.30		6	0.074	0.383	0.144	0.83
320	0.30		7	0.087	0.396	0.144	0.84
330	0.30		8	0.099	0.408	0.144	0.85
340	0.30		9	0.111	0.420	0.144	0.86
350	0.30		10	0.124	0.433	0.144	0.88
360	0.30		11	0.136	0.445	0.144	0.89
370	0.30		12	0.148	0.457	0.144	0.90
380	0.30		13	0.161	0.470	0.144	0.91
390	0.30		14	0.173	0.482	0.144	0.93
400	0.30		15	0.185	0.495	0.144	0.94
410	0.30		16	0.198	0.507	0.144	0.95
420	0.30		17	0.210	0.519	0.144	0.96
430	0.30		18	0.223	0.532	0.144	0.98
440	0.30		19	0.235	0.544	0.144	0.99
450	0.30		20	0.247	0.556	0.144	1.00

