

This Mississippi newsletter gives some good information on the money involved in getting started in beekeeping.

BEE NEWS & VIEWS

MDAC
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Beekeeper's Association Newsletter

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Dear Beekeepers:

We had a wonderful 2-day beekeeping workshop in Jackson on May 15&16. Over 30 beekeepers, some just beginning, participated. A couple of individuals posed some tough questions regarding the economics of beekeeping! How profitable is it? How much does it cost to get into it? How much honey can you produce? Tough ones!! Well, I answered them as best as I could and told them I would research it and give a more detailed answer in this month's newsletter!

Back in 1981, I had written a newsletter on this subject. It's time to write a revised edition. The conclusions aren't much different figuring in inflation and the better price that honey brings now.

First of all, some assumptions have to be in order. Beekeepers operate differently and some are better at cutting corners, others better at marketing, and some better at finding good deals on purchasing bees and equipment. For the purposes of this evaluation the following are assumed and remain constant:

- (1) All equipment upon initial investment will be purchased new except for hives and supers which can be purchased second-hand in most cases for \$60 per colony + \$10-15 per honey super. If other needed equipment is purchased second-hand or at different prices the beekeeper can figure his saving or extra expense.
- (2) Interest rates shall be assumed at 9%. It shall be assumed that all funds shall be on loan at this rate. If a beekeeper can make other arrangements he can calculate savings. Also, interest on 1st year expenses are included, assuming

that operating funds must be borrowed also.

- (3) The time (labor) spent on a per hive basis shall be the same regardless of the size of the operation.
- (4) Honey production shall be assumed at 85# per colony per season with the first 1700# produced being sold at \$1.00/pound retail locally.
- (5) Gasoline prices shall be \$1.10/gallon.
- (6) The beekeeper currently has a ½ ton pick-up he can use.
- (7) All figures are based on a calendar year.
- (8) Colonies will be managed for honey production only and will not be moved to different locations throughout the year.
- (9) Fifty (50) pounds of sugar shall be fed to each colony in the fall/spring at a cost of 33 cents/pound.
- (10) Terramycin mixed with powdered sugar shall be fed three times yearly.
- (11) Depreciation shall be over a 30 year period for all hive parts and processing equipment not motorized.
- (12) Depreciation on motorized equipment shall be over 10 years.
- (13) Beeswax produced will be sold at \$1.50/pound.
- (14) The owner operates 20 colonies in each apiary.

- (15) Each year 1/10 of frames in honey supers must be reworked (nailed, rewired, and wax installed).
- (16) Apiaries are located in systematic pattern to avoid as much as possible back-tracking (extra traveling at a distance of 2-3 miles apart).
- (17) Miticide treatments include two yearly treatments of 2 strips/colony (\$4.00/treatment/hive), crisco patties 4/yr./hive = .50/each.

Conclusions:

- (1) Profit margins increase considerable if more honey is sold at retail prices; however, more cash flow and labor will be involved in packaging and distribution. Once large volumes are packaged, a large investment in bottling equipment would be in order also.
- (2) On a commercial basis honey production in Mississippi is a tough way to go and impossible if a beekeeper must borrow all monies for initial investment and purchase new equipment. At interest rates lower than 9% and with less capital outlay or with honey production of 160#/colony a profit can be achieved.
- (3) Hobby beekeepers with much less capital outlay and operating costs can make good profits if they make more than 85#/colony and sell their honey locally at retail prices greater than \$1.00/lb.
- (4) As outlined in Tables I-IV for a 200-1000 colony new business, the break even production point is about 160#/colony if the crop is sold at a

TABLE I. INITIAL INVESTMENTS FOR NEW BEE BUSINESS

ITEM	20 HIVES	200 HIVES	500 HIVES	1,000 HIVES
Colonies (two deeps)	\$1200	\$12,000	\$30,000	\$60,000
Shallow Honey Supers (4/hive at \$12 each)	\$900	\$9,000	\$22,500	\$45,000
Honey Extractor	\$300	\$2,000	\$5,000	\$8,000
Cappings Melter	\$50	\$3,500	\$3,500	\$3,500
Uncapper	\$165	\$1,300	\$4,000	\$4,000
Honey Pump & Accessories		\$1,400	\$1,400	\$1,400
Settling Tank(s)		\$300	\$500	\$1,000
Filters/Strainers	\$15	\$50	\$100	\$100
Bottling System		\$750	\$750	\$1,000
Grading Equipment				\$800
Fork Lift/Hive Loader			\$1,000	\$10,000
Clothing	\$100	\$150	\$200	\$600
Drugs	\$10	\$100	\$200	\$500
2 Ton Truck				\$25,000
3/4 Ton Truck			\$20,000	\$20,000
Barrel Cart		\$300	\$300	\$300
Liquifier		\$300	\$300	\$300
Honey Extacting House		\$6,000	\$12,000	\$15,000
Storage House		\$3,000	\$5,000	\$8,000
Steam Cleaner		\$500	\$500	\$500
Pallet Truck		\$350	\$350	\$350
Capping Spinner			\$1,000	\$1,500
Miticides	\$90	\$750	\$1,900	\$3,670
*TOTAL INVESTMENT	\$2,830	\$41,750	\$110,500	\$210,520

* Assumed that all equipment except hive parts will be purchased new!!!

TABLE III. ANNUAL PRODUCTION/INCOME ANALYSIS FOR NEW BEE BUSINESS
 Production assumed at 85#/hive and 9# wax per 620# honey

	20 HIVES		200 HIVES		500 HIVES		1,000 HIVES	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Honey Produced	1,700	\$1,700	17,000	\$12,410	42,500	\$30,260	85,000	\$60,010
Beeswax Produced	25	\$38	247	\$370	617	\$925	1,234	\$1,851
**Needed Income (1st Yr. Expense)		\$1,896		\$22,991		\$57,103		\$114,601
Total Yearly Income		\$1,738		\$12,780		\$31,185		\$61,861
Loss at 85#/hive		- \$ 158		- \$10,211		- \$25,918		- \$52,740
** Needed Production to pay yearly expenses (no principle)		95#/hive		160#/hive		160#/hive		160#/hive

** Income/production needed to just pay back interest on investment and still provide owner's salary.

TABLE IV. ***** PRODUCTION/INCOME ANALYSIS IF ASSUME NO DEPRECIATION AND ***1/3 LESS INVESTMENT

	200 HIVES	500 HIVES	1,000 HIVES
1st Year costs	\$20,724	\$47,860	\$95,692
Initial Investment	\$27,847	\$73,703	\$216,856
Production Value (NO CHANGE)	\$12,780	\$31,185	\$61,861
Yearly Loss	- \$7,944	- \$16,675	- \$33,821
Funds Borrowed	\$43,282	\$84,288	\$244,985
Yearly Production needed to cover expenses and salary to owner	148#/hive	137#/hive	137#/hive

*** Reduced investment from savings on buying used equipment, etc.

***** Assume the business would not stay in business after 30 years (no equity left).

TABLE VI: OPERATIONAL EXPENSES ITEMIZED FOR EACH YEAR OF EXPANSION

Year	1	2	3	4	5	6	7	8	9	10	11	12
Drums*	7 (\$140)	10 (\$200)	16 (\$320)	25 (\$500)	34 (\$680)	42 (\$840)	54 (\$1080)	70 (\$1400)	90 (\$1800)	115 (\$2300)	145 (\$2900)	175 (\$3500)
Electricity					\$600	\$600	\$600	\$720	\$960	\$960	\$1200	\$1800
Water					\$240	\$240	\$300	\$360	\$360	\$360	\$360	\$450
Gasoline	\$360	\$480	\$480	\$720	\$960	\$1200	\$1440	\$1800	\$1800	\$1800	\$2400	\$3000
Queens	\$300	\$390	\$480	\$600	Start Rearing Queens							
Bee Go	\$50	\$60	\$60	\$70	\$80	\$100	\$100	\$100	\$120	\$120	\$120	\$200
Miticide	\$400	\$450	\$550	\$800	\$1200	\$1400	\$1600	\$1800	\$2300	\$3000	\$3600	\$4500
Terramycin	\$15	\$20	\$30	\$40	\$60	\$60	\$60	\$75	\$90	\$120	\$150	\$400
Vehicle maintenance	\$100	\$150	\$200	\$300	\$500	\$1000	\$1000	\$1000	\$1000	\$1000	\$1000	\$8050
Honey Extraction	\$2000	\$2500	\$3000	\$4000	Start Own Extraction							
Total	\$3065	\$4250	\$5240	\$7030	\$4320	\$5440	\$6180	\$7255	\$8430	\$9660	\$11730	\$12,000

* Drums at \$20 each.

AKDOWN OF EQUIPMENT NEEDS

us 1-6 with 100 to 300 colonies: All honey to be extracted under contract with another beekeeper at \$.20/lb. invest 24-40% of income back into establishing new hives each year at \$120 each (Does not include labor in assembling).

Hive costs for new hives each year are estimated as follows based on Mann Lake's 1997 catalog prices:

- Foundation- brood depth at .72 cents per sheet x 20 = \$14.40
- Foundation- medium depth at .62 cents per sheet x 30 = \$18.60
- Frames- average price of .55 cents each for all sizes x 50 = \$27.50
- Supers- Deeps at \$6.70 x 2 = \$13.40
 - Mediums at \$4.85 x 3 = \$14.55
- Bottom- \$6.95 x 1 = \$6.95
- Top- \$6.35 x 1 = \$6.35
- Queens- \$6.00 x 1 = \$6.00
- Total cost of hive (no labor/shipping) = \$107.75
- Total including shipping = \$100 x 10% = \$117.75
- Total labor = 3 hours per hive
- Owner can do up to 200 per year working 12-15 hours per week at no cost in labor. This equals to 3 hours per night while holding down another full-time job.

the end of the 6th year will borrow money (\$45000) from FHA at 8% interest to build a 30x30 ft. honey house and storage bldg. and honey processing equipment. Will utilize what money has saved to pay for truck and storage building.

CENTRAL & NORTH MISSISSIPPI
TABLE VII. LABOR INPUT BY OWNER IN MANAGING 1,000 COLONIES

MONTH	TASK	TIME(MINUTES/COL.)	TIME(HRS./APIARY)	TOTAL TIME (HRS.)
January	Travel to and from Apiary	-	.15	7.5
	Feed Colonies	2	.66	33.0
	Assemble, Paint, etc. equipment	-	---	83.0
	TOTAL FOR MONTH	2	.81	124.0 (31 Hrs/wk)
February	Travel to and from Apiary (2 trips)	-	.20	15.0
	Feed colony (1 st feeding) (drug) mite treatment (strips/patties)	2	.66	33.0
	Inspect for queen	2	.66	33.0
	Feed colony (2 nd feeding)	1	.33	16.5
March	Assemble, paint, etc. equipment	-	-	59.0
	TOTAL FOR MONTH	-	-	156.0 (39 Hrs/wk)
	Travel to and from Apiary (2 trips)	-	.20	15.0
	Feed and reverse brood chambers - drug	3	1	50.0
April	Feed (2 nd feeding) - add patty	2	.66	33.0
	Assemble equipment	-	---	33.5
	Clean Apiary (weeds, etc.) spray herbicide	-	.25	12.5
	TOTAL FOR MONTH	-	-	144.0 (36Hrs/wk)
May	Travel to and from Apiary (2 trips)	-	.20	15.0
	Feed, Reverse brood, add honey supers	5	1.66	83.0
	2 nd Inspection and reversal of brood to prevent swarming	5	1.66	83.0
	TOTAL FOR MONTH	-	---	181.0 (37 Hrs/wk)
June	Travel to and from Apiary (2 trips)	-	.30	15.0
	1 st Inspect - reverse brood (cut cells)	8	2.66	133.33
	2 nd Inspect - add supers	2	.66	33.33
	Clean weeds	-	.25	12.5
July	TOTAL FOR MONTH	-	---	188.0 (46Hrs/wk)
	Travel to and from Apiary (5 trips)	-	.5	25.0
	Remove honey and stack on truck	5	1.66	83.0
	Extract (50#/col.)	6	2.00	100.0
August	Reload supers & place on colonies	3	1.00	50.0
	Requeen colonies/make splits (100)	15 (over two trips)	5.00	25.0
	Requeen 500 colonies	8	2.6	65.0
	TOTAL FOR TWO MONTHS	-	---	448.0 (49Hrs/wk)
August	Travel to and from Apiary (3 trips)	-	.30	15.0
	Requeen 400 colonies	8	2.6	52.00
	Inspect new queens in 1,000 colonies and requeen if Needed	3	1.00	55.00
	Weed control	1.5	.50	25.00
TOTAL FOR MONTH	-	---	160.0 (40Hrs/wk)	

