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# FARM MANAGEMENT SERVICE NOTES

CIRCULAR NO. 3

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A LIVELY DISCUSSION HAS ARISEN AS TO THE MONETARY VALUE OF THE MANURE FROM MILCH COWS. THE FOLLOWING CONCLUSIONS ARE BASED ON SAVING 60% OF THE MANURE. MANY FARMERS ARE NOT SAVING OVER 30%, THEREBY LOSING A LARGE PART OF THIS BY-PRODUCT OF THE COW.

AMT. PRODUCT FROM COWS	TOTAL FERTILIZER ELEMENTS IN FEED				FERTILITY RETURNED IN MANURE				FERTILITY IN 60% OF MANURE							
	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	VALUE	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	VALUE	FER. VAL SKIM MILK	TOTAL VALUE	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	VALUE	FER. VAL SKIM MILK	TOTAL VALUE
Cow 4000# M 1 150# BF	71.3	22.0	53.6	\$15.01	60.3	15.5	48.7	\$12.70	\$1.93	\$14.63	36.1	9.3	29.5	\$7.65	\$1.93	\$9.58
Cow 5000# M 2 200# BF	83.6	26.5	62.5	17.61	70.7	18.7	56.8	14.94	2.40	17.37	42.4	11.2	34.1	8.97	2.40	11.37
Cow 7500# M 3 300# BF	105.7	33.6	75.7	22.10	89.4	23.6	68.8	18.72	3.60	22.32	53.6	14.2	41.3	11.23	3.60	14.83

PRICES USED: N - 15¢ LB.; P<sub>2</sub>O<sub>5</sub> - 5¢ LB.; K<sub>2</sub>O - 6¢ LB.; FERT. VALUE SKIM MILK - 6¢ CWT.

TO OBTAIN THE ABOVE FIGURES, CERTAIN DEFINITE RATIIONS WERE ASSUMED. HENRY'S "FEEDS AND FEEDING" IS THE AUTHORITY FOR THE FIGURES "FERTILITY ELEMENTS IN FEEDS"; HOPKIN'S "SOIL FERTILITY AND PERMANENT AGRICULTURE" FOR THOSE ON "FERTILITY IN MANURE"; WHILE 60% WAS ASSUMED AS THE MAXIMUM ESTIMATE OF THE FERTILITY USUALLY SAVED.

ASSUMED RATIIONS - 200 DAYS\*

VALUE OF MANURE FROM FOODS FED

FEED	Cow #1		Cow #2		Cow #3	
	DAILY	TOTAL	DAILY	TOTAL	DAILY	TOTAL
CLOVER	10	2,000	10	2,000	12	2,400
SILAGE	15	3,000	25	5,000	30	6,000
CORN	3	600	3	600	4	800
OATS	3	600	4	800	6	1,200
ACRES REQUIRED OF AV. YIELDS	1.8		2.1		2.6	

VALUE	Cow #1		Cow #2		Cow #3	
	SELL 'G WH.M'K	SELL 'G B.F.	SELL 'G WH.M'K	SELL 'G B.F.	SELL 'G WH.M'K	SELL 'G B.F.
MANURE	\$7.65	\$9.58	\$8.97	\$11.37	\$11.23	\$14.83
ACRES COVERED	1.8		2.1		2.6	
* VALUE PER ACRE	\$4.25	\$5.32	\$4.28	\$5.42	\$4.32	\$5.70

\*ASSUMED THAT PASTURE IS FERTILIZED BY COWS DURING PASTURE SEASON.

\*THIS MEANS THE VALUE OF MANURE FROM EACH ACRE OF FIELD.

ASSUMING THE ABOVE RATION AND CONSIDERING AVERAGE STATE YIELDS, IT IS NECESSARY THAT THE MANURE PRODUCED AND SAVED SHOULD BE RETURNED TO THE SAME ACREAGE THAT PRODUCED THE FEED. THIS MEANS THAT COW #3 WILL REQUIRE MORE ACREAGE FOR CROPS THAN #1, HENCE THE DIFFERENCE IN VALUE OF MANURE PER ACRE IS NOT AS GREAT AS THE TOTAL ANNUAL VALUE OF THE MANURE SAVED. THE FACT THAT THERE IS A DIFFERENCE IN FAVOR OF COW #3 INDICATES THAT NOT ONLY IS IT POOR BUSINESS POLICY TO KEEP THE 150# COW FROM A PRODUCTION STANDPOINT BUT ALSO FROM A FERTILITY STANDPOINT. THE ABOVE FIGURES ALSO INDICATE THAT THERE IS A DIRECT LOSS OF FERTILITY BY SELLING WHOLE MILK INSTEAD OF BUTTERFAT. SKIM MILK HAS A FEEDING VALUE OF AT LEAST 20¢ A CWT. AND THIS IS A LOSS ON THOSE FARMS WHERE THE WHOLE MILK IS SOLD, UNLESS THE PRICE RECEIVED FOR THE WHOLE MILK IS SUFFICIENT TO OVERCOME THE FEEDING VALUE OF THE SKIM MILK. FOR COW #1 THIS VALUE AMOUNTS TO \$6.40; FOR COW #2 A VALUE OF \$8.00 AND FOR COW #3 A VALUE OF \$12.00. CAN THE FARMER AFFORD TO SELL WHOLE MILK?