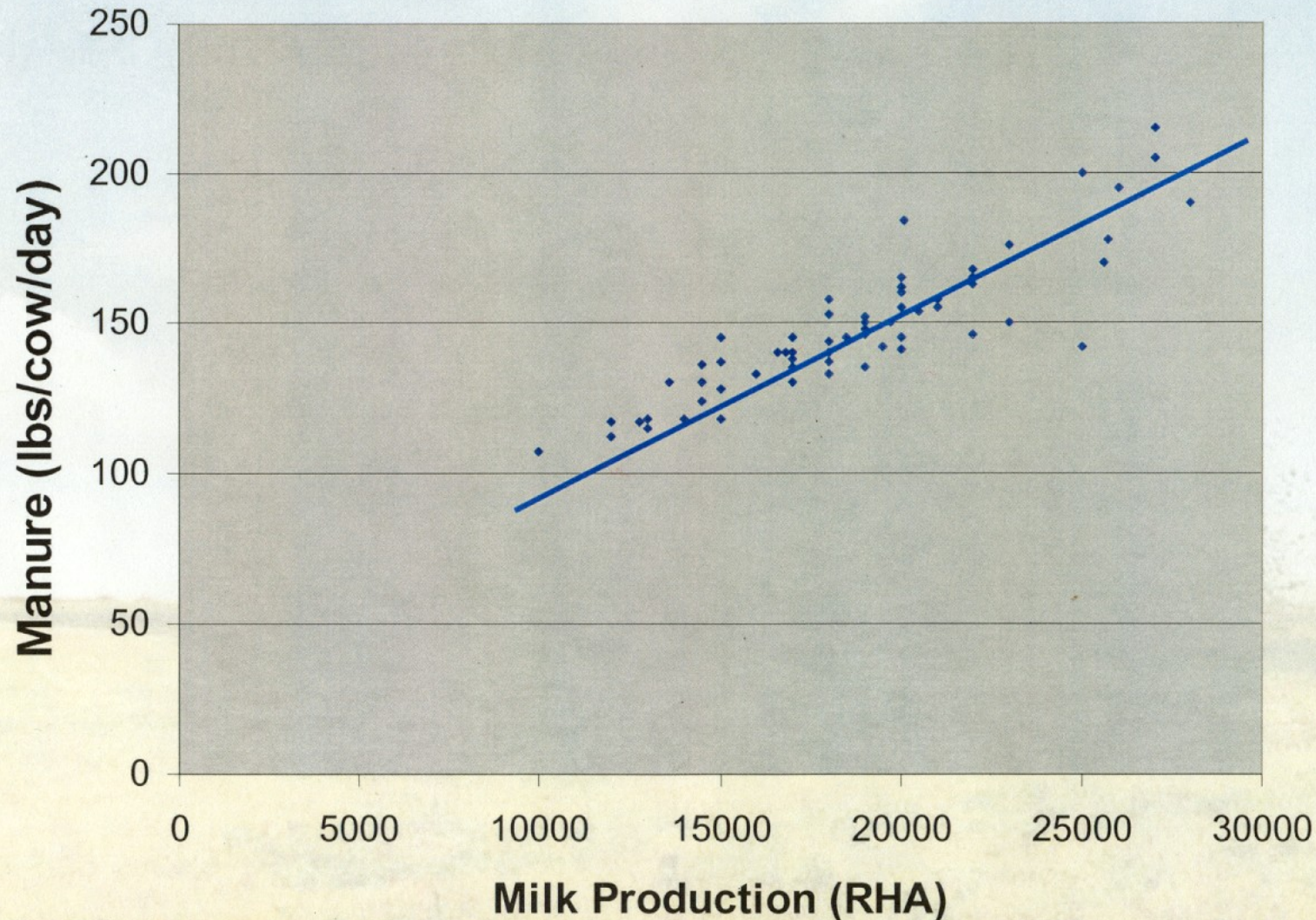


ESTIMATING DRY MATTER INTAKE AND MANURE PRODUCTION OF DAIRY COWS ON PASTURE

CURRENT MANURE PRODUCTION ESTIMATES

CLASS	WEIGHT(LBS)	MANURE (LBS/DAY)
CALVES	150	13
	250	21
HEIFERS	750	65
LACTATING COWS	1000	106
	1200	127
	1400	148
DRY COWS	1000	82
	1400	115

The Influence Of Milk Production On Daily Manure Production



GRAZING DAIRY COWS PRODUCE LESS MILK THAN CONFINED COWS

YEAR	GRAZING	CONFINED
	-----lbs/cow-----	
2000	16526	21277
2001	15796	21346
2002	15644	20858
2003	15644	20454
2004	16404	20202
AVE	16003	20827

NET INCOME PER CWT AND PER COW IS HIGHER FOR GRAZING COWS THAN CONFINED COWS

YEAR	NET \$/CWT		NET \$/COW	
	GRAZING	CONFINED	GRAZING	CONFINED
2000	4.44	2.93	966	764
2001	2.38	1.64	504	468
2002	2.53	1.56	524	374
2003	4.48	2.17	842	520
2004	3.44	1.38	617	315
AVE	3.45	1.94	691	488

ARE ESTIMATES FOR MANURE
PRODUCTION ACCURATE
FOR GRAZING DAIRY COWS?

MAYBE NOT DUE TO:

LOWER DRY MATTER INTAKE
LOWER MILK PRODUCTION
HIGHER QUALITY FEED

ESTIMATING INTAKE AND MANURE PRODUCTION ON GRAZING DAIRY FARMS

FARMER COOPERATORS

MARK MROCZENSKI - ATHENS

PAUL ONAN – AMHERST JUNCTION

ROBERT BRENEMAN - RIO

DAN PATENAUDE - HIGHLAND

BEN HEISNER - MINERAL POINT

DAN TRUTTMAN – NEW GLARUS

RICK ADAMSKI – SEYMOUR

OTHERS

DENNIS COOPER, PAUL NEHRING, CARL FREDERICKS,

RHONDA GILDERSLEEVE, LAURA PAINE,

IN ORDER TO ESTIMATE MANURE PRODUCTION WE MUST
KNOW:

DRY MATTER CONSUMED FROM PASTURE

DRY MATTER CONSUMED FROM SUPPLEMENTAL
FEEDS

PHOSPHORUS CONCENTRATION OF ALL FEEDS

AMOUNT OF NUTRIENTS EXCRETED IN MILK

PHOSPHORUS CONCENTRATION IN MANURE

ESTIMATING PASTURE DRY MATTER INTAKE USING ENERGY BALANCE

IF: ENERGY IN AND AMOUNT OF SUPPLEMENTAL FEEDS IS KNOWN

AND: ENERGY IN AND AMOUNT OF MILK IS KNOWN

AND: ENERGY CONCENTRATION IN PASTURE IS KNOWN

THEN: PASTURE INTAKE CAN BE ESTIMATED BY DIFFERENCE

DATA COLLECTED

YIELD PRIOR TO AND AFTER GRAZING
MILK PRODUCTION FOR GRAZING PERIOD
MANURE SAMPLES
FORAGE QUALITY
BODY CONDITION
SUPPLEMENTAL FEED LEVELS AND QUALITY

QUALITY OF PASTURE FORAGE

Year	CP	NDF	NDFD	NEI	RFQ
	-----%-----			Mcal/lb	
2003	19.8	44.6	63.3	0.74	187
2004	21.0	43.3	61.1	0.75	208
2005	22.9	40.7	69.7	0.75	209

INTAKE AND MILK PRODUCTION OF 7 GRAZING DAIRY HERDS

Year	Intake			Milk Production
	Pasture	Supplement	Total	
	-----lbs/day-----			
2003	20.8 ± 3.1	15.5	36.3	48.8
2004	20.5 ± 2.3	14.9	35.7	52.7
2005	20.0 ± 2.7	16.4	36.4	52.4
AVE	20.3 ± 1.9	15.6	36.1	51.3

TABLE 3. PHOPHORUS AND MANURE
PRODUCTION BY GRAZING
DAIRY COWS

<u>Year</u>	<u>P2O5</u>	<u>Manure</u>
	<u>lb/ton</u>	<u>lb/cow/d</u>
2003	6.0 ± 0.8	77.5 ± 13.3
2004	7.1 ± 0.9	88.7 ± 20.8
2005	5.6 ± 0.6	90.3 ± 8.8
AVE	6.4 ± 0.5	86.4 ± 10.4

STANDARD 5.0

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SUMMARY

PASTURE FORAGE QUALITY IS VERY HIGH

MILK PRODUCTION IS LIMITED BY RELATIVELY LOW INTAKE

HIGH QUALITY AND LOW INTAKE RESULT IN LOWER MANURE PRODUCTION

SUGGEST A VALUE OF 85 LBS/COW /DAY FOR NUTRIENT MANAGEMENT PLANNING PURPOSES FOR AVERAGE SIZE (1200 LB) GRAZING DAIRY COW