*NRC85 LEAST COST LP MODEL FOR LACTATING DIARY COW
* BASED ON 1985 NRC DEGRADABLE PROTEIN SYSTEM
* - - - - -

VAR: 29
LTE: 1
GTE: 3
EQU: 24

FUNCTION: MIN:

	0.039	ALFHCS	0.033	CORNS	0.330
cDM	1.000	ALFHCS	1.000	CORNS	1.000
cCP	172.000	ALFHCS	80.000	CORNS	496.000
cA	110.768	ALFHCS	52.160	CORNS	84.320
cDIB	14.076	ALFHCS	7.038	CORNS	254.850
cUIB	39.588	ALFHCS	9.522	CORNS	156.830
cC	8.256	ALFHCS	11.280	CORNS	0.000
cTDN	0.590	ALFHCS	0.700	CORNS	0.810
cIDM	0.000	ALFHCS	0.000	CORNS	0.000
cFPA	0.000	ALFHCS	0.000	CORNS	0.000
cBCP	0.000	ALFHCS	0.000	CORNS	0.000
cBTP	0.000	ALFHCS	0.000	CORNS	0.000
cRAP	0.000	ALFHCS	0.000	CORNS	0.000
cDBP	0.000	ALFHCS	0.000	CORNS	0.000
cMPA	0.000	ALFHCS	0.000	CORNS	0.000
cMilk	0.000	ALFHCS	0.000	CORNS	0.000
cLPA	0.000	ALFHCS	0.000	CORNS	0.000
cAP	0.000	ALFHCS	0.000	CORNS	0.000
cDUP	0.000	ALFHCS	0.000	CORNS	0.000
cUIP	0.000	ALFHCS	0.000	CORNS	0.000
cRIP	0.000	ALFHCS	0.000	CORNS	0.000
cIP	0.000	ALFHCS	0.000	CORNS	0.000
cDIP	0.000	ALFHCS	0.000	CORNS	0.000
cNE1	1.300	ALFHCS	1.590	CORNS	1.860
cDIPx	0.000	ALFHCS	0.000	CORNS	0.000
cUIPx	0.000	ALFHCS	0.000	CORNS	0.000
cNDFlo	0.500	ALFHCS	0.510	CORNS	0.140
cNDFhi	0.500	ALFHCS	0.510	CORNS	0.140
cForDM	1.000	ALFHCS	0.500	CORNS	0.000

END:

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MILK OUTPUT, kg/d	36.30
SPA+UPA+RPA+YPA =	115.10

ANIMAL-DEPENDENT FACTORS TABLE

W, kg	600.00
FS, kg/kg	1.00
Milk, kg/d	36.30
BF, %	3.50
PP, %	3.00
DBW, kg/d	0.00
T, d	0.00
TBW, kg	34.00
Gain, kg/d	0.00
HF, kg/kg	1.00
DMImax, kg/d	22.00
MPNMPA, g/g	0.67
LPNLPA, g/g	0.65
YPNYPA, g/g	0.50
RPNRPA, g/g	0.50
FPAIDM, g/g	90.00

FEED-DEPENDENT FACTORS TABLE

	ALFHCS	CORNS
Inter feed #		3-02-823
ANALYSIS		
Forage, %DM	100.00	50.00
DM, %	40.00	35.00
NE1, Mcal/kg	1.30	1.59
TDN, %DM	59.00	70.00
NDF, %DM	50.00	51.00
CP, %DM	17.20	8.00
A, %CP	64.40	65.20
B, %CP	31.20	20.70
C, %CP	4.80	14.10

CALCULATED DEGRADABILITY		
kd, %/h	1.60	3.40
kp, %/h	4.50	4.60
DIP, %CP	72.50	74.00
UIP, %CP	27.50	26.00
COSTS		
$/kg	0.0385	0.0330
NRC (1985) DEGRADABILITY		
DIP, %CP	80.00	73.00
UIP, %CP	20.00	27.00

RUMEN & BACTERIAL-DEPENDENT FACTORS TABLE

BTPBCP, g/g	0.80
DBPBTP, g/g	0.80
BCPRAP, g/g	0.90
DNPNCP, g/g	1.00
RIPIP, g/g	0.15

FROM: J DAIRY SCI 72:2733-2745 1989

MANY TYPOs WERE FOUND IN THE TE
THE MATRIX BELOW SHOULD BE COR

SBM44	0.110	GRCORN	0.209	BREWGR	0.231
SBM44	1.000	GRCORN	1.000	BREWGR	1.000
SBM44	100.000	GRCORN	260.000	BREWGR	298.000
SBM44	24.100	GRCORN	66.300	BREWGR	149.298
SBM44	37.950	GRCORN	85.354	BREWGR	68.305
SBM44	37.950	GRCORN	77.146	BREWGR	54.173
SBM44	0.000	GRCORN	31.200	BREWGR	26.224
SBM44	0.880	GRCORN	0.660	BREWGR	0.880
SBM44	0.000	GRCORN	0.000	BREWGR	0.000
SBM44	0.000	GRCORN	0.000	BREWGR	0.000
SBM44	0.000	GRCORN	0.000	BREWGR	0.000
SBM44	0.000	GRCORN	0.000	BREWGR	0.000
SBM44	0.000	GRCORN	0.000	BREWGR	0.000
SBM44	0.000	GRCORN	0.000	BREWGR	0.000
SBM44	0.000	GRCORN	0.000	BREWGR	0.000
SBM44	0.000	GRCORN	0.000	BREWGR	0.000
SBM44	0.000	GRCORN	0.000	BREWGR	0.000
SBM44	0.000	GRCORN	0.000	BREWGR	0.000
SBM44	0.000	GRCORN	0.000	BREWGR	0.000
SBM44	0.000	GRCORN	0.000	BREWGR	0.000
SBM44	0.000	GRCORN	0.000	BREWGR	0.000
SBM44	0.000	GRCORN	0.000	BREWGR	0.000
SBM44	0.000	GRCORN	0.000	BREWGR	0.000
SBM44	2.030	GRCORN	1.500	BREWGR	2.030
SBM44	0.000	GRCORN	0.000	BREWGR	0.000
SBM44	0.000	GRCORN	0.000	BREWGR	0.000
SBM44	0.090	GRCORN	0.120	BREWGR	0.120
SBM44	0.090	GRCORN	0.120	BREWGR	0.120
SBM44	0.000	GRCORN	0.000	BREWGR	0.000

SBM44 5-04-604	GRCORN 4-21-018	BREWGR 5-02-141
0.00	0.00	0.00
89.00	89.00	92.00
1.86	2.03	1.50
81.00	88.00	66.00
14.00	9.00	12.00
49.60	10.00	26.00
17.00	24.10	25.50
83.00	75.90	62.50
0.00	0.00	12.00

7.80	4.40	5.20
4.80	4.40	4.70
68.40	62.00	58.30
31.60	38.00	41.70
0.3300	0.1100	0.2090
72.00	35.00	47.00
28.00	65.00	53.00

XT
RECT

DISTGR	0.301UREA	0DM	0
DISTGR	1.000UREA	-1.000DM	0.000
DISTGR	2810.000UREA	0.000DM	-1.000
DISTGR	2810.000UREA	0.000DM	0.000
DISTGR	#DIV/0!UREA	0.000DM	0.000
DISTGR	#DIV/0!UREA	0.000DM	0.000
DISTGR	0.000UREA	0.000DM	0.000
DISTGR	0.000UREA	0.000DM	0.000
DISTGR	0.000UREA	1.000DM	0.000
DISTGR	0.000UREA	0.000DM	0.000
DISTGR	0.000UREA	0.000DM	0.000
DISTGR	0.000UREA	0.000DM	0.000
DISTGR	0.000UREA	0.000DM	0.000
DISTGR	0.000UREA	0.000DM	0.000
DISTGR	0.000UREA	0.000DM	0.000
DISTGR	0.000UREA	0.000DM	0.000
DISTGR	0.000UREA	0.000DM	0.000
DISTGR	0.000UREA	0.000DM	0.000
DISTGR	0.000UREA	0.000DM	0.000
DISTGR	0.000UREA	0.000DM	0.150
DISTGR	0.000UREA	0.000DM	0.000
DISTGR	0.000UREA	0.000DM	0.000
DISTGR	0.000UREA	0.000DM	0.000
DISTGR	0.000UREA	0.000DM	0.000
DISTGR	0.000UREA	0.000DM	0.000
DISTGR	0.000UREA	0.000DM	0.000
DISTGR	0.000UREA	-0.400DM	0.000

DISTGR 5-02-843	UREA 5-05-070
0.00	0.00
92.00	99.00
2.03	0.00
88.00	0.00
12.00	0.00
29.80	281.00
50.10	100.00
41.10	0.00
8.80	0.00

5.80	0.00
4.60	0.00
73.00	100.00
27.00	0.00
0.2310	0.3010
38.00	100.00
62.00	0.00

CP	0A	0DIB	0
CP	0.000A	0.000DIB	0.000
CP	0.000A	0.000DIB	0.000
CP	-1.000A	0.000DIB	0.000
CP	0.000A	-1.000DIB	0.000
CP	0.000A	0.000DIB	-1.000
CP	0.000A	0.000DIB	0.000
CP	0.000A	0.000DIB	0.000
CP	0.000A	0.000DIB	0.000
CP	0.000A	0.000DIB	0.000
CP	0.000A	0.000DIB	0.000
CP	0.000A	0.000DIB	0.000
CP	0.000A	0.000DIB	0.000
CP	0.000A	0.000DIB	0.000
CP	0.000A	0.000DIB	0.000
CP	0.000A	0.000DIB	0.000
CP	0.000A	0.000DIB	0.000
CP	0.000A	0.000DIB	0.000
CP	0.000A	0.000DIB	0.000
CP	0.000A	0.000DIB	0.000
CP	0.000A	0.000DIB	0.000
CP	0.000A	0.000DIB	0.000
CP	0.000A	0.000DIB	0.000
CP	0.000A	0.000DIB	0.000
CP	1.000A	1.000DIB	0.000
CP	0.000A	0.000DIB	1.000
CP	0.000A	0.000DIB	0.000
CP	0.000A	0.000DIB	0.000
CP	0.000A	0.000DIB	0.000

UIB	0C	0TDN	0
UIB	0.000C	0.000TDN	0.000
UIB	0.000C	0.000TDN	0.000
UIB	0.000C	0.000TDN	0.000
UIB	0.000C	0.000TDN	0.000
UIB	0.000C	0.000TDN	0.000
UIB	-1.000C	0.000TDN	0.000
UIB	0.000C	-1.000TDN	0.000
UIB	0.000C	-0.920TDN	-1.000
UIB	0.000C	0.000TDN	90.000
UIB	0.000C	163.250TDN	0.000
UIB	0.000C	0.000TDN	0.000
UIB	0.000C	0.000TDN	0.000
UIB	0.000C	0.000TDN	0.000
UIB	0.000C	0.000TDN	0.000
UIB	0.000C	0.000TDN	0.000
UIB	0.000C	0.000TDN	0.000
UIB	0.000C	0.000TDN	0.000
UIB	0.000C	0.000TDN	0.000
UIB	0.000C	0.000TDN	0.000
UIB	0.000C	0.000TDN	0.000
UIB	0.000C	0.000TDN	0.000
UIB	0.000C	0.000TDN	0.000
UIB	0.000C	0.000TDN	0.000
UIB	0.000C	0.000TDN	0.000
UIB	1.000C	0.000TDN	0.000
UIB	0.000C	0.000TDN	0.000
UIB	0.000C	0.000TDN	0.000
UIB	0.000C	0.000TDN	0.000

IDM	0FPA	0BCP	0
IDM	0.000FPA	0.000BCP	0.000
IDM	0.000FPA	0.000BCP	0.000
IDM	0.000FPA	0.000BCP	0.000
IDM	0.000FPA	0.000BCP	0.000
IDM	0.000FPA	0.000BCP	0.000
IDM	0.000FPA	0.000BCP	0.000
IDM	0.000FPA	0.000BCP	0.000
IDM	0.000FPA	0.000BCP	0.000
IDM	-1.000FPA	0.000BCP	0.000
IDM	0.000FPA	-1.000BCP	0.000
IDM	0.000FPA	0.800BCP	-1.000
IDM	0.000FPA	1.111BCP	0.000
IDM	0.000FPA	0.000BCP	0.800
IDM	0.000FPA	0.000BCP	0.000
IDM	0.000FPA	0.000BCP	0.000
IDM	0.000FPA	0.000BCP	0.000
IDM	1.000FPA	0.000BCP	0.000
IDM	0.000FPA	0.000BCP	0.000
IDM	0.000FPA	0.000BCP	0.000
IDM	0.000FPA	0.000BCP	0.000
IDM	0.000FPA	0.000BCP	0.000
IDM	0.000FPA	0.000BCP	0.000
IDM	0.000FPA	0.000BCP	0.000
IDM	0.000FPA	0.000BCP	0.000
IDM	0.000FPA	0.000BCP	0.000
IDM	0.000FPA	0.000BCP	0.000
IDM	0.000FPA	0.000BCP	0.000

BTP	0RAP	0DBP	0
BTP	0.000RAP	0.000DBP	0.000
BTP	0.000RAP	0.000DBP	0.000
BTP	0.000RAP	0.000DBP	0.000
BTP	0.000RAP	0.000DBP	0.000
BTP	0.000RAP	0.000DBP	0.000
BTP	0.000RAP	0.000DBP	0.000
BTP	0.000RAP	0.000DBP	0.000
BTP	0.000RAP	0.000DBP	0.000
BTP	0.000RAP	0.000DBP	0.000
BTP	0.000RAP	0.000DBP	0.000
BTP	0.000RAP	0.000DBP	0.000
BTP	-1.000RAP	0.000DBP	0.000
BTP	0.000RAP	-1.000DBP	0.000
BTP	0.000RAP	0.000DBP	0.000
BTP	0.000RAP	0.000DBP	1.000
BTP	0.000RAP	0.000DBP	46.154
BTP	0.000RAP	0.000DBP	0.000
BTP	0.000RAP	-1.000DBP	0.000
BTP	0.000RAP	0.000DBP	0.000
BTP	0.000RAP	0.000DBP	0.000
BTP	1.000RAP	0.000DBP	0.000
BTP	1.000RAP	0.000DBP	0.000
BTP	0.000RAP	0.000DBP	0.700
BTP	0.000RAP	0.000DBP	0.000
BTP	0.000RAP	0.000DBP	0.000
BTP	0.000RAP	0.000DBP	0.000
BTP	0.000RAP	0.000DBP	0.000
BTP	0.000RAP	0.000DBP	0.000

Milk	0LPA	0MPA	0
Milk	0.000LPA	0.000MPA	0.000
Milk	0.000LPA	0.000MPA	0.000
Milk	0.000LPA	0.000MPA	0.000
Milk	0.000LPA	0.000MPA	0.000
Milk	0.000LPA	0.000MPA	0.000
Milk	0.000LPA	0.000MPA	0.000
Milk	0.000LPA	0.000MPA	0.000
Milk	0.000LPA	0.000MPA	0.000
Milk	0.000LPA	0.000MPA	0.000
Milk	0.000LPA	0.000MPA	0.000
Milk	0.000LPA	0.000MPA	0.000
Milk	0.000LPA	0.000MPA	0.000
Milk	0.000LPA	0.000MPA	0.000
Milk	0.000LPA	1.000MPA	0.000
Milk	0.000LPA	0.000MPA	0.000
Milk	-1.000LPA	0.000MPA	0.000
Milk	1.000LPA	1.000MPA	-1.000
Milk	0.000LPA	0.000MPA	1.000
Milk	0.000LPA	0.000MPA	0.000
Milk	0.000LPA	0.000MPA	0.000
Milk	0.000LPA	0.000MPA	0.000
Milk	0.000LPA	0.000MPA	0.000
Milk	0.000LPA	0.000MPA	0.000
Milk	0.000LPA	0.000MPA	0.000
Milk	0.000LPA	0.000MPA	0.000
Milk	0.000LPA	0.000MPA	0.000
Milk	0.000LPA	0.000MPA	0.000
Milk	0.000LPA	0.000MPA	0.000

AP	0DUP	0UIP	0
AP	0.000DUP	0.000UIP	0.000
AP	0.000DUP	0.000UIP	0.000
AP	0.000DUP	0.000UIP	0.000
AP	0.000DUP	0.000UIP	0.000
AP	0.000DUP	0.000UIP	0.000
AP	0.000DUP	0.000UIP	0.000
AP	0.000DUP	0.000UIP	0.000
AP	0.000DUP	0.000UIP	0.000
AP	0.000DUP	0.000UIP	0.000
AP	0.000DUP	0.000UIP	0.000
AP	0.000DUP	0.000UIP	0.000
AP	0.000DUP	0.000UIP	0.000
AP	0.000DUP	0.000UIP	0.000
AP	0.000DUP	0.000UIP	0.000
AP	0.000DUP	0.000UIP	0.000
AP	0.000DUP	0.000UIP	0.000
AP	0.000DUP	0.000UIP	0.000
AP	-1.000DUP	0.000UIP	0.000
AP	1.250DUP	-1.000UIP	0.000
AP	0.000DUP	0.000UIP	-1.000
AP	0.000DUP	1.000UIP	-1.000
AP	0.000DUP	0.000UIP	-1.000
AP	0.000DUP	0.000UIP	0.000
AP	0.000DUP	0.000UIP	0.000
AP	0.000DUP	-1.000UIP	0.000
AP	0.000DUP	0.000UIP	0.000
AP	0.000DUP	0.000UIP	0.000
AP	0.000DUP	0.000UIP	0.000

RIP	0IP	0DIP	
RIP	0.000IP	0.000DIP	=
RIP	0.000IP	0.000DIP	=
RIP	0.000IP	0.000DIP	=
RIP	0.000IP	0.000DIP	=
RIP	0.000IP	0.000DIP	=
RIP	0.000IP	0.000DIP	=
RIP	0.000IP	0.000DIP	=
RIP	0.000IP	0.000DIP	=
RIP	0.000IP	0.000DIP	=
RIP	0.000IP	0.000DIP	=
RIP	0.000IP	0.000DIP	=
RIP	0.000IP	0.000DIP	=
RIP	0.000IP	0.000DIP	=
RIP	0.000IP	0.000DIP	=
RIP	0.000IP	0.000DIP	=
RIP	0.000IP	0.000DIP	=
RIP	0.000IP	0.000DIP	=
RIP	0.000IP	0.000DIP	=
RIP	0.000IP	0.000DIP	=
RIP	-1.000IP	0.000DIP	=
RIP	0.000IP	-1.000DIP	=
RIP	0.000IP	0.000DIP	>=
RIP	0.000IP	-1.000DIP	=
RIP	0.000IP	0.000DIP	=
RIP	0.000IP	0.000DIP	>=
RIP	0.000IP	0.000DIP	<=
RIP	0.000IP	0.000DIP	>=

*RHS

0.000
0.000
0.000
0.000
0.000
0.000
0.000
0.000
0.000
199.125
0.000
0.000
0.000
115.100
36.300
0.000
0.000
0.000
0.000
0.000
0.000
0.000
9.698
0.000
0.000
6.600
7.200
0.000