**ANCHIVES** Current Report

Cooperative Extension Service • Division of Agriculture • Oklahoma State University

# The National Sheep Improvement Program

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The National Sheep Improvement Program (NSIP) is a national performance testing system developed by SID (Sheep Industry Development) that will allow producers to make the genetic operations. The sheep industry was the only major livestock species without a recognized national performance evaluation program. The Dairy Herd Improvement Association (DHIA), the Beef Improvement Federation (BIF), and the National Swine Improvement Federation (NSIF) all provide guidelines for genetic improvements within their respective industries.

In the spring of 1984, a task force of purebred and commercial producers and technical advisors from extension and research was formed to lay the foundation for a national system. In June of 1986 the Sheep Industry Development program approved the plans for NSIP. Funding for the project was developed from several sources, approximately \$270,000 was necessary to develop and implement the program. Iowa State University was selected as the NSIP operations center, and the 1987 lamb crop was the first lamb crop processed through the national performance testing center.

### **Performance Traits**

There are currently eleven traits that are being used in the National Sheep Improvement Program. Those traits are separated into three categories: 1) maternal traits, 2) growth traits, and 3) wool traits. The maternal traits included initially in the program are: 1) prolificacy; number of lambs born per ewe, and 2) productivity; pounds of lamb weaned per ewe. The growth traits include the following weights:

30 day
 60 day
 90 day
 120 day
 240 day

A limit of three of these weights may be taken, any number up to three may be obtained. The first weight taken will be considered a weaning weight, additional weights will be considered post-weaning weights.

The wool traits consist of 1) grease fleece weight, 2) clean fleece weight, 3) staple length, and 4) fleece grade. As with any of the above traits. This program was constructed to be very flexible and cost effective. If a producer is only interested in selecting for prolificacy, then he may wish to only measure that trait. If another producer is interested in all of the maternal and wool traits and three of the growth traits, he may collect all of those measurements and receive a genetic evaluation for each of the traits measured.

### **Record Forms**

There are five different forms that are used by producers for recording individual pedigree and performance information. Two of those forms are optional forms, depending on which performance measures you as a producer are interested in collecting.

### **Enrollment Inventory Form**

The Enrollment Inventory form is a one-time only recording form for each flock being enrolled in NSIP. This form is to include every ewe and ram in the flock that will be used for breeding purposes in the current year along with pedigree information on each individual.

#### Lambing and Weaning Form

The Lambing and Weaning form will be a preprinted form mailed to the producer following receipt of the enrollment inventory form. This form will be used to record all lambing information, along with weaning weights and any post-weaning weight taken.

### Mating and Inventory Form

The Breeding Flock Inventory form will be preprinted by NSIP after receipt of the lambing and weaning forms. This form is to be used by producers to update the breeding flock for the next production cycle. Producers can also use this form to record mating information for the next years lamb crop.

### Yearling Ewe and Ram Wool Form

This is an optional form to be used only by producers that are interested in collecting yearling measures on the wool traits. NSIP will preprint this form and send it out to producers. Wool measurements will need to be taken on yearlings only.

### Lamb Post-weaning Growth Form

This is an optional form to be used only by producers that are collecting post-weaning growth information and have not included that information on the lambing and weaning form. This form will also be preprinted by NSIP and sent to producers who request it.

### **Genetic Evaluation Forms**

Examples of the Flock Genetic Evaluation Summary, Ewe Lifetime Production Summary, and Flock Management Summary are illustrated in Tables 1, 2 and 3, respectively.

### **Genetic Evaluation Summary**

The Flock Genetic Evaluation Summary is a listing of the Flock Expected Progeny Differences (FEPD's) that have been calculated based upon the information sent in by the producer (Table 1). A Flock Expected Progeny Difference is calculated using the newest methodology and computer technology available. FEPD is defined as the difference in performance to be expected from future progeny of a ram or ewe, compared with that expected from future progeny of the average ram or ewe in the same flock. As an example; a ram that is +5.5 lb. for 60 day weight would be expected to produce progeny that would average 5.5 lb. heavier than the flock average at 60 days of age. NSIP uses the individual and all relative's

## Table 1. Flock Genetic Evaluation Summary

DATE: 01/11/89 PAGE: 1 FLOCK NUMBER: 99-999-999 NAME: J. A. SHEPHERD BREED: ANYBREED



	· •		BIRTH						FLOCK EXPECTED PROGENY DIFFERENCES													
COMP	FLOCK	REG			M	ATER	RNAL				GROW	ГН			[		WO	00L				
NUM	TAG	NUM		Ţ	LAMES	3	LBS	5	30-DAY		60-DA	Y	90-D	AY	GREAS	E	CLE/	IN A	LENG	гн	GRAI	DE
			DATE	Å	BORN		HEAN	ED	(LBS	)	(LBS	)	(LBS	0	WT (LE	S)	MT (L	BS )	( INCH	ESI	(MICR	ONS)
				Ē	FEPD	ACC	FEPD	ACC	FEPD	ACC	FEPD	ACC	FEPD	ACC	FEPD	ACC	FEPD	ACC	FEPD	ACC	FEPD	ACC
EWES																						
13	82277	P346856F	10-24-82		-, 050	. 15	-2.8	.20	- 17	11	- 23	05			19			i				
14	83280	P347355S	1-03-83		022	. 20	+2.0	.26	- 40	11	- 28	14			- 40					1		
11	83293	P350544S	2-07-83		047	. 15	-1.3	.20	- 24	07	-1.69	10			+ 21	50		i l				
15	83294	P350545S	2-07-83		017	. 18	+2.7	.23	+ 06	. 11	+.31	. 14	+.34	. 06	+ 10	18		<b>i</b> - 1				
9	84333	P360719S	1-07-84		+.020	. 18	+1, 1	.20			• • •		• • •	• • •	+ 09	18				i 1		
_	i.		]																			
7	84334	P360720S	1-07-84		002	. 18	-1.7	. 20	+.27	. 11	+, 98	. 10	+.92	. 12	33	. 44						
4	84351	P366876S	2-22-84		+.017	. 18	+3.6	.23	32	.07	- 53	. 10	44	.06	20	44		1			i	
16	84354	P374231S	4-16-84		-,012	. 15	+.0	. 20	-, 17	.04	14	.05										
17	84367	P374227F	9-05-84		+,001	. 15	+.3	.20	+.04	.07		- P -						;				
2.4.1	85395	P374239S	1-07-85		-,003	. 12	+.7	. 15	· .						+,82	.70						
	05300				1997 - 1997 -													ŀ				
· · · 2	85398	P374240S	1-16-85		+,032	. 15	+4.4	. 20	+.28	.07	+. 69	. 10	+.81	. 12	+.94	. 60						
5	85407	P3742295	2-16-85		+,080	. 18	+3,1	. 20	04	.07	+.43	. 10	+.58	.06	+.52	. 62						
12	85409	P3742305	2-19-85		+.018	. 15	-3,3	.20	04	.04	24	.05			19	. 45						
10%	00423	P3826585	4-19-85	·	+.032	. 18	+3,9	.23	-, 11	. 14	+.26	. 10	+.53	.06	+.24	. 68		1				
°	86436~	P385584S	1-06-86		+,012	. 12	+2.8	. 16														
	96427	Dansfore	1					1.1									· .					
23	86442	P3055653	1-08-86		+,044	. 15	+3.1	.20	+.06	. 07	+.12	.10	+.24	. 12	+.25	.60	· .	i				
10	86444	P3055905	1-13-86		+.046	. 15	+3,0	.20	-,06	.07	09	.10	27	. 12	+.59	. 64						
	86446	P3055923	1 15 06		011	. 18	-1.1	.20	+.11	.04	03	.05	15	.06	+, 11	. 68						
24	86502	D3955135	2-04-06		003	. 12		. 15	04	.07					+1.00	.70	1.1	i -	1.5	$\sim 10$		
		. 0500100	3-04-80		+.009	.05	-1,8	.06							05	.54		1 4				
25	86507	P399721F	9-20-86		- 006	16		20	+ 04	~								1				
26	86519	P399725F	10-15-86		- 000	15	_1 2	.20	7,04	. 04	+.29	. 05	0/	.06	+.03	.60	· · · ·	1 -				
27	86525	P399729F	11-14-86		- 006	15	-1 6	.20	- 10	.04	03	.05	09	.06	+.07	. 60	e i s	1.	1.1			
							-1.0	. 20	19	.04	-, 52	.05			+.50	.60				1 A A	1	
E LAMBS	· · · ·	a guile			1.1.1								•									
66	88586		1-17-88	1	- 003	. 04	+ 2	05	+ 13	31	+ 41	33	- 21	32			÷.,		1.5.5			
48	88590		1-19-88	2	- 009	.04	+1.4	.06	+ 08	33	+ 30	35	+ 21	32				1 0	1.1.1.1.1.1	1.1		
49	88592		1-21-88	2	+.009	.05	+1.8	.06	55	32	- 74	34	- 64	32								
58	88595		1-22-88	2	+ 016	05	+2.0	06	+ 10	. 34	+ 48	34	+ 84	32				1				-
67	88596		1-23-88	1	-,003	.04	- 7	.05	+ 16	31	- 01	. 33	- 17	32			4					
					1. AN 19	1. L	3	1.1					• • •	•							· 1	
59	88598		1-23-88	2	+.022	. 04	+1,5	.05	+,12	. 32	+, 15	. 34	+.41	. 34			:	1		1.1		·
61	88600		1-25-88	2	+.023	.04	+1.5	.05	+, 10	. 32	+.02	. 34	26	.34			2 A		1.11 1.1		1	- 2 I
62	88601	N	1-25-88	2	+, 023	. 04	+1,5	. 05	14	. 32	13	. 34	34	.34							. 1	1
DAME	1.111.111						· ·										2.1					
TAPIS	83300	00000175			- 18 - 1 - 1 1	2 J.	11 E			•					1.5		1.14					
20	83300	P360917F			1 1 1 1 1	$-10^{-1}$	- 1 - E		+.00	. 26	+.00	. 14			+,00	. 18		1	1.11			
28	80104	P403844F	11-02-86		$[1,2] \in \mathbb{R}^{n}$				+.34	. 26	+.55	. 30	+,67	.21			÷.					
21	005/8	P392612S	1-05-86		2 I. N. I. N.		- J. 1		+ 05	.41	+.06	.46	06	. 42	+.18	, 45	2 C	1916	1. 6. 5	1.5		
					$< 1.5 \pm 0.0$	S. 1	a secola															
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performance to calculate the most accurate estimate of that animals genetic worth.

Three genetic evaluation summaries can be obtained from NSIP. The first is a listing in the order of lowest to highest flocktag number. Those forms will rank the flock from highest to lowest FEPD for the two traits that the producer is most interested in.

### **Ewe Lifetime Production Summary**

The Ewe Lifetime Production Summary is shown in Table 2. This summary is provided by NSIP for each ewe in a producers flock that has lambed in the current production cycle. This summary is probably the most important form to be sent to the producer. A production summary on every ewe in the flock takes many, many hours of work for a producer to complete. This form gives you a complete listing of every lamb each ewe has raised along with the performance information on each lamb. The summary also lists the ewes individual performance at the top of the form along with her FEPD's. This summary gives the producer an up-to-date listing of each and every ewe in the flock, making selection and culling decisions much more simplified.

### Flock Management Summary

The Flock Management Summary is separated into three sections (Table 3). The first section lists the overall production summary for the flock, with comparisons given on first time lambing ewes and mature ewes. This section gives the producer an idea if the selection procedures he has used in the past are moving his flock in the right direction. The second section of the summary lists a distribution for your flock in terms of lambing dates and type of births. The third section is an inventory of your flock and a listing of reasons for culling, along with percentages for each disposition code. This form gives the producer many of the averages and flock statistics necessary to make selection and culling decisions.

> National Sheep Improvement

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### Table 2. Ewe Lifetime Production Summary

DATE: FLOCK NUMBER: NAME: BREED:

DREEDI	12 51	DF		EWE INDIVIDUAL PERFORMANCE	L
	20072		BIRTH DATE: 1-10-78	GREASE FLEECE WT(LBS): 15.0	NUMBER EXPOSURES: 3
			BIRTH TYPE: NA	CLEAN FLEECE WT(LBS): NA	NUMBER LAMBINGS: 4
R2	· •		REARING TYPE: NA	STAPLE LENGTH(INCHES): NA	TOTAL LAMBS BORN: 10
21373			BIRTH WT: NA	FLEECE GRADE(MICRONS): 22.6	TOTAL LAMBS WEANED 7
			60-DAY WT. NA	FACE COVER SCORE: 3	AVG LAMBING INTERVAL: 364
	1017 DAI	м	120-DAY WT: NA	SKIN FOLD SCORE: 1	
	12398		180-DAY WTI NA	OPTIONAL WOOL CODE: NA	

EWE GENETIC MERIT

		MAT	ERNAL				GRO	ытн			HOOL									
FEPD AS OF	LAMBS BORN				60-DAY		120-DAY		180-DAY		GREASE		CLEAN		LENGTH		GRA	ADE RONS )		
	FEPD	ACC.	FEPD	ACC	FEPD	ACC	FEPD	224	FEPD	ACC	FEPD	ACC	FEPD	ACC	FFPD	ACC	FEPD	ACC		
9-28-88	+.112	.23	-1.4	.23	+.07	.14	+1.69	.20			+.16	. 47					12	. 56		

					LA	MBING	AND	PROGE	IY PERF	DRMANCE								
[	DATE Lambed	OPT EWE CODE	SIRE TAG NUM	LAMB TAG NUM	LAMB REG NUM	SEX	LIV CODE	REAR CODE	BIRTH WT	60-DAY WT	AC MGT CODE	E ADJUST 120-DAY WT	ED WEI Mgt Code	GHTS 180-Day Wt	MGT CODE	DISP CODE	OPT LAMB CODE	ي <del>1</del> 94 م
	1-10-85 1-10-85 1-07-86 1-07-86 1-07-86 1-17-87 1-17-87 1-17-87		C0124 C0124 C0124 C0124 C0124 C0124 C0124 C0124	B172 R178 B245 R235 R241 B331 B332 B333	38778	ERERERR	3	1 1 1 2	13.0 14.0 12.0 11.0 13.0 14.0 13.0	76,69	08	135,74 139,20 118,80 86,40 144,00	09 11 11 09 09			04 02 01 04 04	WS EF E	
	1-08-88 1-08-88		C5217 C5217 C5217	815 816		RR	-	1 1 1	14.0 14.0	56.74 62.49	08 08	118.74	11 11			01	H S	
)DES ther (LIT ad a befo NG C ared	<u>t</u> d born/full t ithin 72 ho fter 72 ho fter 72 ho <u>ODES (REAR</u> ) on dam ed	MA 1 22 (V): 34 erm RE eurs 6 irs, 7 1: 9	L DISP RKET/BREDI =Kept for b =Sold for b =Sold for s =Sold for s =Sold for s =Sold for s =Sold for s =Don =Hastitis/m =Foor EPD ( .0=Other	COSITION CODI NG STOCK: reading reading reader laughter : ilk problem our ness performance	L CAUSE OF DI 11=Predate 12=Lambin 13=Poison 14=Respiri 15=Digest 16=Accider 17=Other	ATH: ors g diffi atory ive ntal	iculty ants	FAI 1=None 2=Beyou 3=Belou 4=Belou 5=Face SK 1=No fi 2=Few moo 3=Fold 4=Heav 5=Cove	CE_COVER beyond p nd poll, v eyes, o v eyes, f entirely IN FOLD S olds folds, sm derate si s, modera v folds, v folds, red with	I <u>SCORES:</u> oll not below pen face ace cover covered <u>SCORES:</u> mall to ze te size 8 moderate heavy fol	eyes ed  num ds	PRE-WEANII 1=No crei nursi 2=Creep, 3=No crei 4=Creep, MEANING W EANING W 5=No crei 5=No crei 8=Creep,	NG WEIG ap, ewe ewes f ep, all all ew EIGHT: ap, ewe ed ewes f ep, all all ew	MANAGEM HT: s fed by num ewes fed es fed th s fed by num ewes fed wes fed th	ENT COD number ber nur the sa e same number number number number same	ES (MG POS 9= 10 sed 11 me LOC A= B= C: sed C: FI (	L TT WEANING Market la =Replacem =Producti ATION: =Location =Location =Etc DMP_NUM: DCK_TAG:	J MEIGHT: mb mot develop on test 1 2 000001 #2

### **Benefits of NSIP**

The National Sheep Improvement Program has provided the sheep industry with a tool to increase the efficiency of our operations and provide for a more profitable operation. This program will provide the purebred producer the opportunity to genetically evaluate their flock for traits that are economically important to their own operations. The commercial producer will probably benefit the most from this system as their operations must become as efficient as possible. The commercial producer will have the ability to make management and selection decisions based upon traits that are of the most economic benefit to his or her own operation, such as prolificacy or weaning weight. The commercial producer will also have the opportunity to select rams from flocks enrolled in NSIP. They can select superior rams based upon their genetic performance as well as their visual appearance.

### Table 3. Flock Management Summary 1987-1988

PRODUCTION           AVERAGE PERFORMANCE         IST LAMB EWES 1987 1988 1987 1988 1987 1987 1987 1988 1987 1987 1987 1988 1987 1987 1987 1988 1987 1987 1988 1987 1987 1988 1987 1987 1987 1987 1987 1988 1987 1987 1987 1987 1987 1987 1987 1987 1987 1987 1987 1987	LOCK NUMBER: NAME: Breed:								2.		Nati Shee Impr Progr
AVERAGE PERFORMANCE         IST LAMB EMES         MATURE EMES         AVERAGE PERFORMANCE         IST LAMB EMES         MATURE EMES           EMES EXPOSED:         1         7         23         31         EMES:         1987         1988         1987         1988           CONCEPTION RATE(x)         100         0         100         100         100         100         0.0         0.0         1.087         1988         1987         1988           LAMBS BORN         1.00         .00         1.39         1.55         STAPLE LENGTH (LBS)         0.0         0.0         0.0           LAMBS DORN         1.00         .00         1.39         1.55         STAPLE LENGTH (LINCHES)         1.8         2.8           EMES THAT LAMBED:         1         23         31         Image: Control of the cont					PRODU	CTION					
EMES EXPOSED,       1       7       23       31       EMES,       10       10       10         CONCEPTION RATE(1)       100       0       100       100       100       GREASE FLEECE HT (LBS)       4,9       43,0         LAMBS BORN       1,00       .00       1,39       1,68       CLEAN FLEECE HT (LBS)       4,9       43,0         LAMBS BORN       1,00       .00       1,39       1,68       CLEAN FLEECE HT (LBS)       4,9       43,0         LAMBS BORN       1,00       .00       1,39       1,68       CLEAN FLEECE MT (LBS)       1.8       2,8         EMES THAT LAMBED;       1       23       31       FLEECE GRADE (HICRONS)       25,6       25,6         EMES THAT LAMBED;       1       0.0       .00       1,39       1,68       LAMBS;       1       32       49         LAMBS BURY IVING TO MEANING(1)       100       0       100       92       BIRTH MT       13,0       0,0       1,7       9,9       9         LAMBS MEANED/EME/12 MO       135       78       (MDA)       .75       .00       .95       .85         DAYS FROM EXPOSURE TO LAMBING       197       0       170       179       120-DAY HT(AGE ADJ)	AVERAGE PERFORMANCE	151 LAP	1B EWES	MATUR	E EWES	AVERAGE	PERFORMANCE	1ST LAMB	EWES	MATURE	EWES
CONCEPTION RATE(\$)         100         0         100         100         100         GREASE FLEECE WT (LBS)         4.9         43.0           LAMBS BORN         1.00         .00         1.39         1.68         CLEAN FLEECE WT (LBS)         0.0         0.0           LAMBS MEANED         1.00         .00         1.39         1.68         CLEAN FLEECE WT (LBS)         0.0         0.0           LAMBS MEANED         1.00         .00         1.39         1.68         CLEAN FLEECE WT (LBS)         0.0         0.0           LAMBS MEANED         1         23         31         FLEECE GRADE (MICRONS)         25.6         25.6           LAMBS SURVIVING TO MEANING(\$1)         100         0         130         168         LAMBS;         1         32         49           LAMBS SURVIVING TO MEANING(\$2)         100         0         135         78         GNDAY WT(AGE ADJ)         44         0         56         51           LAMB MEANED/EME/12 MO         135         78         (MDA)         .75         .00         .84         .00         .04         .05         .05           DAYS FROM EXPOSURE TO LAMBING         197         0         170         179         120-DAY HT(AGE ADJ)         .0	WES EXPOSED:	1	7	23	31	EWES		10	10		
LAMBS BORN       1,00       .00       1,39       1,68       CLEAN FLEECE WT (LBS)       0,0       0,0       0,0         LAMBS MEANED       1,00       .00       1,39       1,55       STAPLE LENGTH (INCHES)       1.8       2.8         CHES THAT LAMBED:       1       23       31       FLEECE GRADE (MICRONS)       25,6       26,6         LAMBS BORN       1,00       .00       1,39       1,68       LAMBS:       1       32       49         LAMBS BORN       1,00       .00       1,39       1,68       LAMBS:       1       32       49         LAMBS SURVIVING TO MEANING(1)       100       0       100       92       BIRTH NT       13,0       0,0       11,7       9,9         LAS LAMB HEANED/EME/12 M0       135       78       60-DAY MT(AGE ADJ)       44       0       56       51         LAMBING INTERVAL (DAYS)       0       0/02       03/02       03/04       180-DAY MT(AGE ADJ)       .75       .00       .84       .76         AGE AT LAMBING (YR/M0)       01/02       00/00       03/02       03/04       180-DAY MT(AGE ADJ)       0       0       130       12         St LAMB EMES (W)       1       2       3	CONCEPTION RATE(%)	100	Ö	100	100	GREAS	FLEECE WT (LBS)	4.9	43.0		
LAMBS WEANED       1.00       .00       1.39       1.55       STAPLE LENGTH (INCHES)       1.8       2.8         EWES THAT LAMBED:       1       23       31       FLEECE GRADE (MICRONS)       25,6       25,6       25,6         LAMBS BORN       1.00       .00       1.39       1.68       LAMBS;       1       32       49         LAMBS BORN       1.00       .00       1.39       1.68       LAMBS;       1       32       49         LAMBS BORN       1.00       .00       100       92       BIRTH WT       13,0       0.0       11,7       9,9         LBS LAMB HEANED/EME/PROD CYCLE       58       0       135       78       60-DAY MT(AGE ADJ)       44       0       56       5         LAMB ING KY SPROM EXPOSURE TO LAMBING       197       0       170       179       120-DAY MT(AGE ADJ)       58       0       130       112         LAMBING (YR/MO)       01/02       00/00       03/02       03/04       180-DAY MT(AGE ADJ)       0       0       130       122         LAMBING (YR/MO)       01/02       00/00       03/02       03/04       180-DAY MT(AGE ADJ)       0       0       130       122         Ist LAMB EWE	LAMBS BORN	1.00	. 00	1,39	1,68	CLEAN	FLEECE HT (LBS)	0.0	0,0		
FLEECE GRADE (MICRONS)       25,6       2	LAMBS WEANED	1.00	.00	1,39	1,55	STAPL	E LENGTH (INCHES)	1.8	2.8		
LAMB ED:       1       23       31         LAMBS BORN       1,00       .00       1,39       1.68       LAMBS;       1       32       49         LAMBS BORN       1,00       .00       135       .78       COLMBS;       13       .00       01.79       9.9         LBS LAMB HEANED/EME/PROD CYCLE       58       0       135       .78       COLMAN       .75       .00       .95       .85         DAYS FROM EXPOSURE TO LAMBING       197       0       170       179       120-DAY HT(AGE ADJ)       .58       0       .00       .95       .85         DAYS FROM EXPOSURE TO LAMBING       197       0       170       179       120-DAY HT(AGE ADJ)       .58       0       .00       .95       .85         AGE AT LAMBING INTERVAL (DAYS)       0       0       0       .03/02       03/04       180-DAY HT(AGE ADJ)       .00       .00       .73       .62         DISTRIBUTION         IST LAMB EMES (#)       0       0       0       0       0       .00       .73       .62         IST LAMB EMES (#)       0       0       0       0       0       0       0		-	-			FLEEC	E GRADE (MICRONS)	25.6	25.6		
LAMBS BORN 1,00,00 1,39 1,68 LAMBS; 1 3,0 0,0 11,7 9,9 LAMBS SURVIVING TO MEANING(1) 100 0 100 92 BIRTH WT 13,0 0,0 11,7 9,9 LBS LAMB MEANED/EME/ROD CYCLE 58 0 135 78 60-DAY HT(AGE ADJ) 44 0 56 51 LBS LAMB MEANED/EME/ROD CYCLE 58 0 135 78 (MDA) .75 .00 .95 .85 DAYS FROM EXPOSURE TO LAMBING 197 0 170 179 120-DAY HT(AGE ADJ) 58 0 100 91 LAMBING INTERVAL (DAYS) 0 369 (MDA) .48 .00 .84 .76 AGE AT LAMBING (YR/MO) 01/02 00/00 03/02 03/04 180-DAY HT(AGE-ADJ) 0 0 130 112 (MDA) .00 .00 .73 .62	WES THAT LAMBED.	1		23	31						
LAMBS SURVIVING TO MEANING(x) 100 0 100 92 BIRTH HT 13,0 0,0 11,7 9,9 LBS LAMB MEANED/EME/PROD CYCLE 58 0 135 78 60-DAY WT(AGE ADJ) 44 0 56 51 DAYS FROM EXPOSURE TO LAMBING 197 0 137 137 120-DAY WT(AGE ADJ) 58 0 100 91 LAMBING INTERVAL (DAYS) 0 369 (MDA) .48 .00 .84 .76 AGE AT LAMBING (YR/MO) 01/02 00/00 03/02 03/04 180-DAY WT(AGE-ADJ) 0 0 130 112 (MDA) .00 .00 .73 .62	LAMBS BORN	1.00	.00	1.39	1.68	L AMBS :		1		32	49
LBS LAMB HEANED/EHE/PROD CYCLE 58 0 135 78 60-DAY HT(AGE ADJ) 44 0 56 51 LBS LAMB HEANED/EHE/12 M0 135 78 (WDA) .75 .00 .95 .85 DAYS FROM EXPOSURE TO LAMBING 197 0 170 179 120-DAY HT(AGE ADJ) 58 0 100 91 LAMBING INTERVAL (DAYS) 0 369 (WDA) .48 .00 .84 .76 AGE AT LAMBING (YR/MO) 01/02 00/00 03/02 03/04 180-DAY HT(AGE-ADJ) 0 0 130 112 MEEKS AFTER START OF LAMBING .00 .00 .73 .62	LAMBS SURVIVING TO WEANING(%)	100	0	100	92	BIRTH	WT	13.0	0,0	11.7	9,9
LBS LAMB HEANED/EME/12 M0 DAYS FROM EXPOSURE TO LAMBING 197 0 170 179 120-DAY HT(AGE ADJ) 58 0 100 91 LAMBING INTERVAL (DAYS) 0 369 (WDA) .48 .00 .84 .76 AGE AT LAMBING (YR/MO) 01/02 00/00 03/02 03/04 180-DAY HT(AGE-ADJ) 0 0 130 112 (WDA) .00 .00 .73 .62 DISTRIBUTION	LBS LAMB WEANED/EWE/PROD CYCL	58	0	135	78	60-D/	AY WT(AGE ADJ)	44	0	56	51
DAYS FROM EXPOSURE TO LAMBING       197       0       170       179       120-DAY HT(AGE ADJ)       58       0       100       91         LAMBING INTERVAL (DAYS)       0       369       (WDA)       .48       .00       .84       .76         AGE AT LAMBING (YR/MO)       01/02       00/00       03/02       03/04       180-DAY HT(AGE-ADJ)       .0       0       130       .00       .01       .00       .73       .62         DISTRIBUTION         HEEKS AFTER START OF LAMBING       AGE IN YEARS AT LAMBING         1       2       3       5       7       8       9       10+       .0       10       9       8       1       3         IST LAMB ENES (#)       0       0       0       0       0       0       0       0       0       0       0       2       4       5       6+       .	LBS LAMB WEANED/EWE/12 MO			135	78	(WDA	)	.75	.00	. 95	.85
LAMBING INTERVAL (DAYS) AGE AT LAMBING (YR/MO)       0       0       369       (HDA)       .48       .00       .84       .76         AGE AT LAMBING (YR/MO)       01/02       00/00       03/02       03/04       180-DAY HT(AGE-ADJ)       0       0       130       112         DISTRIBUTION         MEEKS AFTER START OF LAMBING         AGE IN YEARS AT LAMBING         12       3       4       5       6         DISTRIBUTION       AGE IN YEARS AT LAMBING         Ist LAMB EWES (#)       0       0       0       0       1       2       4       5       6         Ist LAMB EWES (#)       0       0       0       0       0       0       0       1       2       6         Ist LAMB EWES (#)       0       0       0       0       0       0       0       0       0       0       0       0<	DAYS FROM EXPOSURE TO LAMBING	197	0	170	179	120-D	AY WT(AGE ADJ)	58	0	100	91
AGE AT LAMBING (YR/MO)     01/02 00/00 03/02 03/04     180-DAY HT(AGE-ADJ)     0     0     130 112       DISTRIBUTION       DISTRIBUTION       MEEKS AFTER START OF LAMBING       1 2 3 4 5 6 7 8 9 10+       (1 2 3 4 5 6 7 8 9 10+       (1 2 3 4 5 6 7 8 9 10+       (1 2 3 4 5 6 7 8 9 10+       (1 2 3 4 5 6 7 8 9 10+       (1 2 3 4 5 6 7 8 9 10+       (1 2 3 4 5 6 7 8 9 10+       (1 2 3 4 5 6 7 8 9 10+       (1 2 3 4 5 6 7 8 9 10+       (1 2 3 4 5 6+       (1 2 3 4 5 6 7 8 9 10+       (1 2 3 4 5 6 7 8 9 10+       (1 2 3 4 5 6 7       (1 2 3 4 5 6 7       (1 2 3 4 5 6 7       (1 2 3 4 5 6 7       (1 2 3 4 5 6 7       (1 2 3 4 5 6 7       (1 2 3 4 5 6 7       (1 2 3 4 5 6 7       (1 3 2 29 26 3 10       TYPE BIRTH       TYPE BIRTH       TYPE BIRTH       (1 2 3 1 1 4 2 6       SINGLE (%)       (1 2 3 1 3 6 3 13 6 19       THIN (%)	LAMBING INTERVAL (DAYS)			0	369	CWDA		. 48	.00	.84	.76
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	AGE AT LAMBING (YR/MO)	01/02	00/00	03/02	03/04	180-D	AY WT(AGE-ADJ)	0	0	130	112
DISTRIBUTION           AGE IN YEARS AT LAMBING           1         2         3         4         5         6         7         8         9         10+           1ST LAMB EWES (N)         0						(WDA	,	.00	.00	.73	. 62
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	HE	EKS AFTER	START	IF LAMBI	DISTR			AGE IN	YEARS	AT LAMB	ING
IST LATE ENES (#)       0       0       0       0       0       0       0       0       0       10       9       8       1       3         ( $\chi$ )       0       0       0       0       0       0       0       0       0       0       0       10       9       8       1       3         ( $\chi$ )       0       0       0       0       0       0       0       0       0       0       ( $\chi$ )       0       32       29       26       3       10         TYPE BIRTH         MATURE ENES (#)       2       8       1       4       2       6       SINGLE ( $\chi$ )       0       60       33       12       100       0         ( $\chi$ )       8       26       3       13       6       3       3       13       6       19       THIN       ( $\chi$ )       0       0       100       0         ( $\chi$ )       8       26       3       13       6       19       THIN       ( $\chi$ )       0       0       0       0       0       0       0       0       0       0       0       0       0	$\frac{1}{2}$	- 9	2 6	<u> </u>	<u>8 9</u>	_10+_	ALL ELLES (A)	<u> </u>	<u> </u>	<u> </u>	<u> </u>
(x)       0	ISI LAMB EWES (W) 0 0 0	0 0	0 0	0	0 0	0	ALL EMES (W)	0 10	20	8 I 26 2	3
MATURE EMES       (#)       2       8       1       4       2       6       SINGLE       (%)       0       60       33       12       100       0         (%)       8       26       3       13       6       3       3       13       6       19       TWIN       (%)       0       60       33       12       100       0         (%)       8       26       3       13       6       13       13       6       19       TWIN       (%)       0       0       13       0       0       0       13       0<	(*) 0 0 0	υι	0 0	U	0 0	U ·	TYPE BIDTU	U 32	29	ζ0 3	10
(%) 8 26 3 13 6 3 3 13 6 19 TRIPLET (%) 0 0 0 13 0 0 TRIPLET (%) 0 0 13 0 0 Olda + (%) 0 0 0 13 0 0			2 1	1	A 2	6	SINGLE (V)	0 60	22	12 100	
TRIPLET (%) 0 0 13 0 0 OUAD + (%) 0 0 0 13 0 0		13	5 3	3 1	3 6	19		0 40	67	75 0	100
	1ATURE ENES (#) 2 8 1			5 1			TOTPLET (*)	0 0	<i>°</i> ,	13 0	
	MATURE EWES (#) 2 8 1 (%) 8 26 3	13 0									

							1444	ENIUR	T								
	DISPOSITION BY CODE																FLOCK
	2	3	4	5_	6	7	8	9	10	11	12	13	14	15	16	17	8/31/88
LAMBS (#)	0	0	0	0	0	. 0	0	0	. 0	0	0	0	0	0	0	0	48
1ST LAMB EWES(#)	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
MATURE EWES (#)	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32
BREEDING RAMS(#)	3	8	0	0	0	0	0	0	1	0	0	0	0	0	0	0	. 7
PERCENT OF TOTAL																	• ,
CURRENT YEAR(%)	31	63	0	0	0	0	0	0	6	0	0	0	0	0	0	0	
PREVIOUS YEAR(%)	0	0	0	0	· 0	0	0	0	0	0	0	0	, o	0	0	0	

DISPOSITION: MARKET/DREEDING STOCK: 1=Kept for breeding 2=Sold for breeding 3=Sold as feeder 4=Sold for slaughter

REASON CULLED: 5-Open 6=Hastitis/milk problems 7=Feet/leg soundness 8=Condition 9=Poor EPD (performance) 10=Other CAUSE OF DEATN: 11=Predators 12=Lambing difficulty 13=Polsonous plants 14=Respiratory 15=Digestive 16=Accidental 16=Accidental 17=Other



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