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UNIVERSITY OF IDAHO  
J. J. Dahmen, Research Animal Scientist  
J. D. Mankin, Extension Animal Scientist

# Idaho Sheep Production Testing Program

The Idaho Sheep Production Testing Program is designed to help sheepmen realize more profit from their enterprise. With this program sheepmen can more accurately select ewes that will produce more lambs and wool. The program considers mothering ability, twinning, ability to gain and wool production.

## Purpose of Production Testing

A production testing program is not a contest. Its sole purpose is to help sheep raisers locate the best producing ewes and rams in their flocks.

The sheep breeder cannot base his selection on production records alone. He must consider desirability and practicality for his flock. He should use production records to evaluate sires and select ewe lambs for replacement and to cull low producing ewes.

## Results Expected from the Program

Variable sheep productivity in any flock allows for a production testing program through selection based on production records.

1. Select replacements from ewes that wean the most pounds of lamb at 90 days of age and shear the most pounds of wool of the desired grade.

2. Regular and rigid culling of ewes based on production record and selection of replacements based on individual and dam's performance can increase the ewe production by as much as 30 pounds of lamb and 3 to 4 pounds of wool.

You could do this in the time required for a complete ewe turnover (about 6 years).

## How Information Can Be Used

The following are measures that you can use to estimate the overall breeding value of an animal and to rank each according to average flock production:

1. Adjusted 90-day weights and ratio.
2. A lamb index and ratio.
3. A ewe index and ratio.

These index and ratio values are calculated on a within-flock basis for selecting replacements and culling poor-producing animals.

## Procedure

**Enrollment:** You can enroll your flock through your County Extension Agent or one of the Area Livestock Specialists.

**Identification:** Each ewe and her lamb or lambs must be identified. Sheep raisers can inexpensively ear-tag each ewe and her lambs with numbered metal or plastic tags. Place identical tags in each ear as a precaution against loss of one of the tags. Sheepmen also can tattoo an ear-tag number into an ear of all replacement ewes to insure permanent identification.

## Collecting Data

The Idaho Sheep Production Testing Program provides a field record sheet on which to record data at birth and at approximately 90 days of age. This field record is

started as the lambs are born. These records are kept:

1. Identification — (a) ewe number, (b) age and (c) breed.
2. ID number of lamb
3. Date of birth
4. Type of birth
5. Sex of lamb
6. Birth weight of lamb (optional)
7. Sire number and breed (optional)

At 90 days of age, plus or minus 10 days, you should weigh the lambs. Record the following information on the field record sheet:

1. Date weighed
2. Rearing code (single, twin or triplet)
3. Optional are: staple length of wool, face cover, muscling, type score.
4. Any remarks about either ewe or lamb.

Weigh lambs individually and in similar age groups (i.e., lambs between 80 and 100 days of age). Twenty days later, weigh the second group, etc.

You need not actually wean the lambs at 90 days; their weight at this age is the only information that is needed.

Use a dairy scale to weigh each fleece then record it on the field record sheet. Also indicate the date of shearing and grade of wool. Even though records can be computed without wool weights, you should include them in the records since wool production is one of the economic traits being evaluated. At shearing fleece weight, wool grade and staple length information should be kept on the ewe.



Table 1. Data print-out on two ewes.

Year	Ram in mo/da	Sire ID	Ram Days	Fleece wt grd sl		Lamb ID	Birth mo/da	Lambs Born	Sex	Birth wt	Type of Rearing	90-Day CRCT wt	Adj wt	Adj wt Ratio	Lamb Index	Lamb Index Ratio	Ewe Index	Ewe Index Ratio
Ewe Number 01320				Ewe Age 02														
1976	9/ 1	46	167	.0	.0	01756	2/15	2	E	8.7	2	59.3	64.6	75.5	71.1	76.8	96.3	100.6
						01757	2/15	2	R	15.9	2	83.4	100.1	118.5	110.1	119.4		
Total Performance				0.0			Born	2	Raised		2	142.6						
Avg Performance - 167				0.0 - 0.0				2.0		12.3	2.0	71.3	82.3	97.0	90.6	98.1	192.6	201.2
																	Predicted Producing Value	151.3
Ewe Number 01326				Ewe Age 02														
1976	9/ 1	62	155	.0	.0	01653	2/ 3	1	R	14.3	1	93.0	91.1	107.0	91.1	98.6	91.1	95.1
Total Performance				0.0			Born	1	Raised		1	93.0						
Avg Performance - 155				0.0 0.0				1.0		14.3	1.0	93.0	91.1	107.0	91.1	98.6	91.1	95.1
																	Predicted Producing Value	98.3

### Calculations

All completed field records are to be submitted to the University of Idaho on the Field Record Sheets where they are processed by electronic data processing (EDP).

Information you will have in the computer printout will be as follows: Program 1 records — (a) ram lamb summary, (b) ewe lamb summary, (c) summary for individual sires and (d) total flock summary.

If you want a more complete record you will have: (e) individual ewe production record sheet (one for each ewe) and (f) two pre-listings for next year's records.

### Records

How do you use the records to realize the most genetic improvement in your flock? Where do you place most emphasis when evaluating records to select replacements?

*Selection of replacements* — the program is designed so animals with higher scores are the more desirable animals.

1. Dam's PPV (Predicted Producing Value)
2. Dam index — Expresses a relative superiority or inferiority of the dam in relation to the average of the flock.
3. Lamb index — Expresses a relative superiority or inferiority of the lamb in relation to the average of the lambs produced.

4. Adjusted weight ratio — Expresses relation of the corrected 90-day weight in relation to the average adjusted 90-day weight.
5. Soundness — Any conformation or breeding unsoundness should be discriminated against.
6. Conformation — Evaluations should be made on the basis of correctness of skeletal and muscle structure.
7. Conformity to breed characteristics — Purebred animals should be selected to keep the desired breed characteristics.

Table 1 contains examples of a one-year data print-out on two young ewes as taken from an electronic data processing sheet. Compare in the table the PPV of 151.3 for Suffolk ewe No. 1320 to that of 98.3 for ewe No. 1326. These are from only their first year's lambing, however, the PPV is accumulative for each ewe and includes successive yearly lambing records.

### Emphasis for culling

- A. PPV (Predicted Producing Value)
- B. Average accumulated ewe index ratio
- C. Average adjusted weight ratio of lambs
- D. Family information
- E. Soundness of ewe and lambs produced
- F. Conformity to breed characteristics
- G. Physical defects

### Evaluation of sires

#### A. Consideration given to:

1. Number of sires used
2. Selection of ewe groups exposed
3. Lambs produced
  - a. Number of lambs (total and average per ewe)
  - b. Average adjusted weight of lambs per sire

#### B. Compare sire records of each to other rams and flock average

### Flock summary

#### A. Ewes

1. Number of ewes
  - a. Number of ewes exposed
  - b. Number of ewes dropped lambs
2. Average ram days of ewes
  - a. Compare individual ram days for selection of ewes for early and late lambing, etc.
3. Average age of ewes in flock
4. Average fleece weights
5. Average flock index

#### B. Lambs

1. Number lambs born
2. Number lambs raised
3. Average birth weights to compare to average for each ram
4. Average lamb index for comparison

#### C. Type of birth by sex summary

1. These are to be used for specific selections reducing adjustment situations.