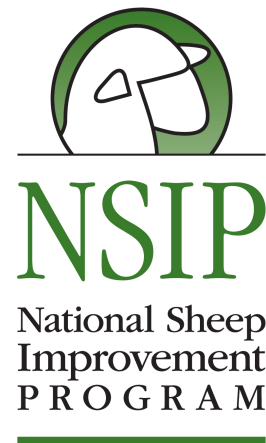


# Data Collection for NSIP

## What data to collect and when



Data collection is at the core of genetic selection and as the saying goes, “you can’t change what you don’t measure”. With that sentiment in mind, the data producers collect will vary based on what their genetic selection goals are, the selection goals of their customers, the breed being raised and the production system being utilized. All breeds represented in NSIP will start by collecting body weights of their lambs/sheep at different ages with most collecting a birth weight, weaning weight and a 120-day weight. From there, the breed differences will dictate additional measurements taken such as terminal sire breeders collecting ultrasound images for loin muscle and fat depth or fine wool producers collecting yearling grease fleece weights, fiber diameter and staple length. The chart below shows all the possible measurement types available for each age category. Remember though, all of these measurements are NOT required to be a member of NSIP, rather they are available to you if it is important to your genetic selection

NSIP Production Data and Available EBVs						
		Measurement Type				
Age Category	Age Range	Live Weight	Carcass Ultrasound	Fleece Traits	Scrotal Circum.	Worm Egg Count
Birth	< 24 hours	Yes				
Weaning	42-90 days	Yes				Yes
Early Post Weaning	91-150 days	Yes	Yes		Yes	Yes
Post Weaning	151-304 days	Yes	Yes		Yes	Yes
Yearling	10-14 mos.	Yes	Yes	Yes	Yes	Yes
Hogget	14-19 mos	Yes		Yes	Yes	
Adult	2-6 years	Yes		Yes		

In the chart above, if a cell says “Yes”, that indicates that an EBV is available for that measurement type and age category combination, which means if a producer would like to receive those EBVs, they need to collect that particular measurement during the acceptable age window. The age range applies to the entire contemporary group; therefore data can be collected on an entire group, on 1 day within that age category. More information on the next page explains which of these measurements most apply to particular breeds.

**Every sheep operation is different. However, similar data collection schedules among flocks within each breed can help in comparing EBVs across those flocks. Below are the most common data collection schedules among NSIP members of varying breeds.**

### **Range Breeds:**

*Rambouillet, Targhee*

#### **Reproduction:**

- Birth Type/Rear Type (single, twin etc.)

#### **Weights:**

- Birth – 24 hours
- Pre-Weaning - ~60 days
- Weaning - ~120 days

#### **Fleece:**

- Yearling GFW, FD and SL

#### **Ultrasound:**

- Yearling Loin Muscle Depth
- Yearling Fat Depth

### **Hair Breeds:**

*Katahdin, Dorper, White Dorper*

#### **Reproduction:**

- Birth Type/Rear Type (single, twin etc.)

#### **Weights:**

- Birth – 24 hours
- Weaning - ~60 days
- Early Post Weaning - ~120 days

#### **Fecal Egg Count:**

- Weaning - ~60 days
- Post Weaning - ~120 days

#### **Optional:**

Ultrasound Loin and Fat Depth

### **Pedigrees**

The genetic evaluation through NSIP utilizes performance information of individual lambs as well as the data from their contemporaries and all known relatives in the database. Therefore, accurate pedigree information is integral to the accuracy of the genetic predictions.

Each NSIP member should strive to provide an accurate and complete pedigree for each lamb submitted for analysis. Whenever possible, groups of ewes should be exposed to single-sire matings or if groups of sires are utilized, pedigree could be verified utilizing DNA parentage testing.

Providing accurate pedigrees will allow the genetic evaluation to more accurately parse out differences in performance due to genetic and environmental causes and will strengthen the overall database of NSIP.

### **Maternal Breeds:**

*Polyway*

#### **Reproduction:**

- Birth Type/Rear Type (single, twin etc.)

#### **Weights:**

- Birth – 24 hours
- Weaning - ~60 days
- Early Post Weaning - ~120 days

#### **Optional:**

- Weaning Fecal Egg Count
- Post Weaning Fecal Egg Count
- Yearling Fleece
- Ultrasound Carcass Data

### **Terminal Sire Breeds:**

*Hampshire, Suffolk, Shropshire, Texel, Dorset*

#### **Reproduction:**

- Birth Type/Rear Type (single, twin etc.)

#### **Weights:**

- Birth – 24 hours
- Weaning - ~60 days
- Early Post Weaning ~120 days

#### **Ultrasound:**

- Early Post Weaning ~ 120 days
  - Loin Muscle Depth
  - Fat Depth

These charts outline what data the majority of breeders within each category collect. Remember, not all data is required for each breeder and the dataset being collected can be customized for each flock. A data collection protocol should fit within a flock's management system and production goals thus, protocols may differ between flocks within a breed.

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