

NSIP

National Sheep Improvement Program

What is it and what will it cost me?



What is NSIP

NSIP is an American organization offering US Sheep producers a way to improve their flock productivity and quality using Estimated Breeding Values (EBVs)

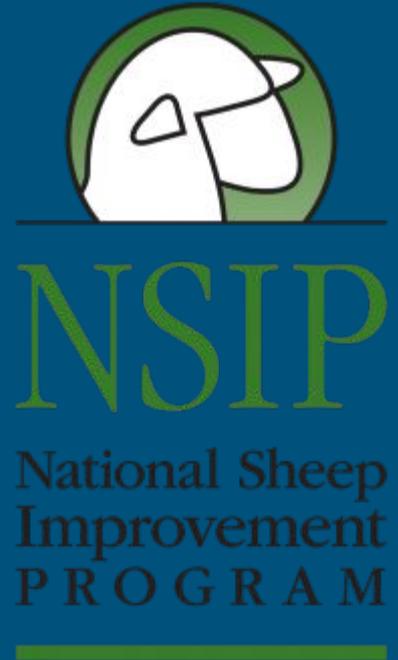
Their Mission¹: To provide predictable, economically important genetic evaluation information to the American sheep industry by converting performance records into relevant decision making tools.

They were founded in 1986 and are a non-profit organization with a volunteer board of directors.

¹<http://nsip.org/nsip-about>

NSIP Membership benefits:

- Free software for flock data management and submission
- Free training and mentoring support from a like-minded sheep breeder
- Advanced genetic evaluation calculations using proven technology
- Comprehensive reports on both individual animals and breeds
- Listing on NSIP website
- News and updates via email



What are EBVs?

And why use them?

EBVs are, in short, a way to determine an animal's breeding value in order to predict the value of that individual's progeny.

What traits and what do I have to do?

Bluefaced Leicesters would fall under the category of “Maternal Wool Breeds” and traits collected include:

Birth Weight	# of lambs born	Fleece Weight
Weaning Weight	# of lambs weaned	Fiber Diameter
Maternal Weaning Wt	Loin Muscle Depth	Staple Length
Post-weaning Weight	Fat Depth	Worm Egg Count
Yearling Weight	Scrotal Circumference	USA Maternal Index

As a breeder, you would be responsible for collecting this data and reporting it accurately (software and training for this provided with membership)

Cost Breakdown

There are three types of fees associated with membership:

- ★ A yearly fee of \$100
- ★ A “Breeding Ewe Fee” - this is a yearly fee associated with the number of breeding ewes in your flock (\$2.50/ewe)
- ★ A “Database Fee” - every animal that enters the database is charged this fee once (\$3.00/animal)

The First year of membership is different: you pay a \$100 deposit that goes towards database fees which applies to all new sheep. (Any unused money will go towards next year’s database fees)

NSIP states that the cost associated with a 50 ewe flock can be recouped with the sale of one ram sold based on EBVs

Large Flock Cost Simulation (30 ewes):

<u>Year 1 - Large Flock</u>	<u>Year 2 - Large Flock</u>	<u>Year 3 - Large Flock</u>
<p>-\$100 Database Fee Deposit. - \$90 (30 ewes x \$3) Database Fee (\$100 Deposit is used to pay this). -\$156 (52 lambs x \$3) Database Fee (\$100 Deposit is used to pay this, \$146 paid after Deposit has been used).¹</p>	<p>-\$100 Enrollment Fee (paid at beginning of year, \$25 discount if paid before 1/31). -\$75 (30 ewes x \$2.50) Breeding Ewe Fee (paid at beginning of year). -\$156 (52 lambs x \$3) Database Fee (paid when accrued).¹</p>	<p>-\$100 Enrollment Fee (paid at beginning of year, \$25 discount if paid before 1/31). -\$75 (30 ewes x \$2.50) Breeding Ewe Fee (paid at beginning of year). -\$156 (52 lambs x \$3) Database Fee (paid when accrued).¹</p>
<p>TOTAL COST YEAR 1: \$246 COST PER EWE: \$8.20</p>	<p>TOTAL COST YEAR 2: \$331 COST PER EWE: \$11.03</p>	<p>TOTAL COST YEAR 3: \$331 COST PER EWE: \$11.03</p>

¹Assuming 175% Lambing

Small Flock Cost Simulation (10 ewes):

<u>Year 1 - Large Flock</u>	<u>Year 2 - Large Flock</u>	<u>Year 3 - Large Flock</u>
<p>-\$100 Database Fee Deposit. - \$30 (10 ewes x \$3) Database Fee (\$100 Deposit is used to pay this). -\$51 (17 lambs x \$3) Database Fee (\$100 Deposit is used to pay this).¹</p> <p>-\$19 of the deposit remaining, this will be applied to the next years database fees.</p> <p>TOTAL COST YEAR 1: \$100 COST PER EWE: \$10.00</p>	<p>-\$100 Enrollment Fee (paid at beginning of year, \$25 discount if paid before 1/31). -\$25 (10 ewes x \$2.50) Breeding Ewe Fee (paid at beginning of year). -\$51 (17 lambs x \$3) Database Fee (paid when accrued, \$19 covered by first year deposit).¹</p> <p>TOTAL COST YEAR 2: \$157 COST PER EWE: \$15.70</p>	<p>-\$100 Enrollment Fee (paid at beginning of year, \$25 discount if paid before 1/31). -\$25 (10 ewes x \$2.50) Breeding Ewe Fee (paid at beginning of year). -\$51 (17 lambs x \$3) Database Fee (paid when accrued).¹</p> <p>TOTAL COST YEAR 3: \$176 COST PER EWE: \$17.60</p>

¹Assuming 175% Lambing

This is an example provided by NSIP representative:

SheepGenetics

Analysis: USA TERMINAL, 1 July 2017



Sires			Bwt	Wwt	Pwvt	Pfat	Pemd	NLB	NLW	Psc	Mwvt	Lamb2020	Carcase+	Sire
Animal ID	Inbreeding	Prog:Fkls	kg	kg	kg	mm	mm	%	%	cm	kg			Dam
695003-2014-MM1417	8.3%	100:2	0.27	3.8	4.9	-1.8	1.9	4	3		-1.1	107.4	154.6	695003-2012-MM2007
MAPLETON MYND SHROPSHIRE		Acc:	91	91	92	91	93	49	42		64	60	92	695003-2011-HF1103
695006-2016-FG6203	8.1%	5:1	0.12	0.6	-0.6	-1.0	1.8	-8	-6		0.4	103.2	123.6	695006-2014-FG6111
GROVERMAN SHROPSHIRE		Acc:	72	72	75	71	77	31	27		36	47	72	695006-2014-FG6312
695006-2016-FG6211	3.3%	18:1	0.57	2.8	5.5	-3.4	0.0	-7	-5		0.1	105.2	139.2	695006-2014-FG6123
GROVERMAN SHROPSHIRE		Acc:	80	80	83	81	85	29	25		38	53	81	695006-2011-FG6208
695006-2016-FG6233	6.5%	36:2	-0.22	-0.1	-1.0	0.8	1.2	-3	-3		0.3	100.9	106.3	695006-2014-FG6111
GROVERMAN SHROPSHIRE		Acc:	83	83	85	82	85	31	27		38	54	83	695006-2014-FG6302

These EBVs are generated after the PWWT (post weaning weight) and ultrasound info has been evaluated. The grey number below the black EBV is the accuracy.

Older ewes with 9+ progeny will have an 80% accuracy for growth and carcass traits. Mid-aged ewes with 4-5 lambs will have 75-80%, and the young first-time lambers will be in the low 70s. The more data provided, the better accuracies will be.

Contrasting this to a flock with low numbers (less than 20 lambs born per year) with small contemporary groups, and minimal ram competition (mostly single-sire matings), such a flock would be appx 71% accurate for growth on older ewes and 66% in mid-aged ewes.