

## Refshaw Ramblings from the Land of the Rising Sun

*Jeremy Refshaw, President*

Greetings, I hope this letter finds everyone in good spirits and enjoying another mild winter. We have been fortunate to not get a lot of snow this winter and our temperatures have not been unbearable either. Of course, I am writing this in mid-January and the forecast looks brutal next week. We made the decision to try lambing some of our ewes in December this year and so far, it has worked out well, it was nice not having the lambing barn so crowded. Now we have a little break until our next group starts in February.

The new year is an exciting time when we are filled with optimism and dreams of what the year ahead has in store for us. We can set goals for ourselves and our operations, whether it's making some new investments or improvements for efficiency. The board of directors has plans that we are working on for our members that we are excited to share with everyone. We are looking at a new logo for the association, this is in the early stages and more information will be coming. There is a new sale opportunity coming up for both NSIP and non NSIP Polypay's with the Ohio Showcase Show and Sale May 8-10, 2025, in Greenville Ohio. We are also looking at a sale in South



Dakota. The APSA youth grant fundraiser online auction will be held February 12, 2025. Anyone can donate, if you are interested, please contact Zach Meinders. The link for the sale is: <https://plauctions.live/auction/27470>.

**There has been and continues to be a problem with people receiving bogus SCAM emails from APSA presidents, or directors asking for payments and electronic financial transactions to be made to them. These requests are SCAMS and are not legitimate. Please be aware of this problem and please contact the person whose name is used to ensure any transactions you make are correct. We**

**do not request dues or registration fees privately for anything.**

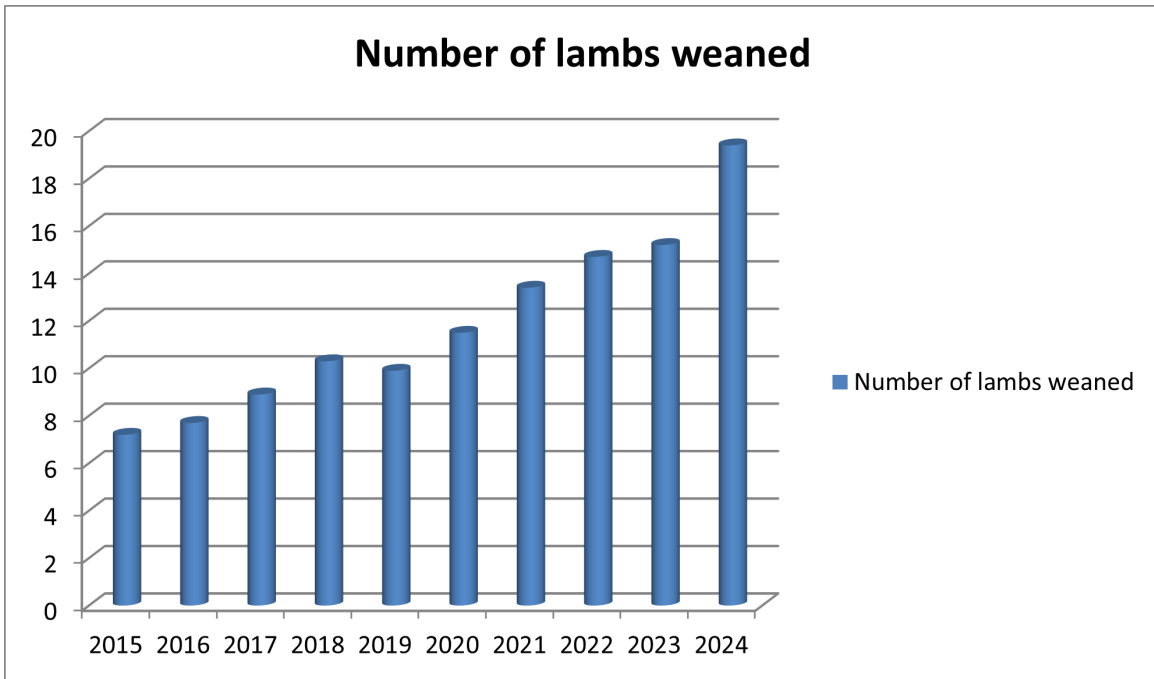
What's on your mind? As always if you have any questions, ideas or concerns please reach out to me.

Respectfully,  
*Jeremy Refshaw*  
APSA President

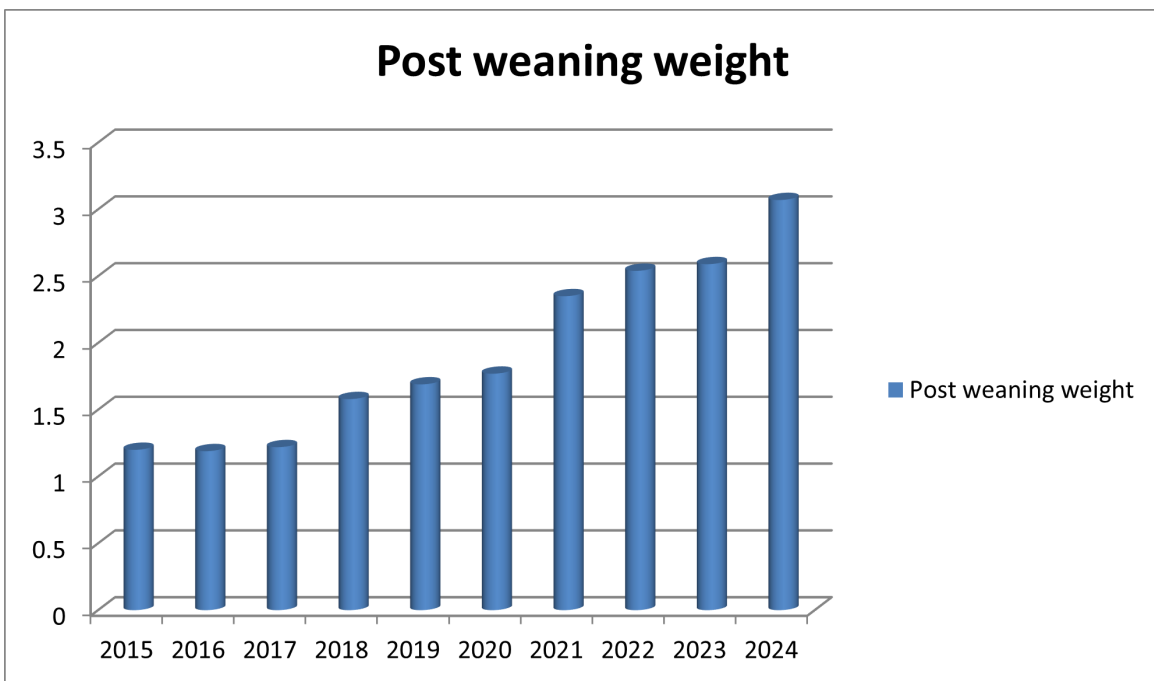
# Polypays Excel Where it Counts \$

*Submitted by Glen Jones*

Nearly every shepherd knows that the keys to making money from a sheep enterprise are having lots of lambs weaned per ewe and having those lambs grow rapidly. The charts below clearly demonstrate that progressive Polypay breeders have established clear trends of improving both of those traits in this maternal breed of sheep.



The number of lambs weaned breeding value expresses the difference for the number of lambs weaned per ewe compared to the breed average for that trait when the cross flock data was first established. A 100 ewe flock with an average NLW of 17 would be expected to wean 20 more lambs per year than one with an NLW value of -3.

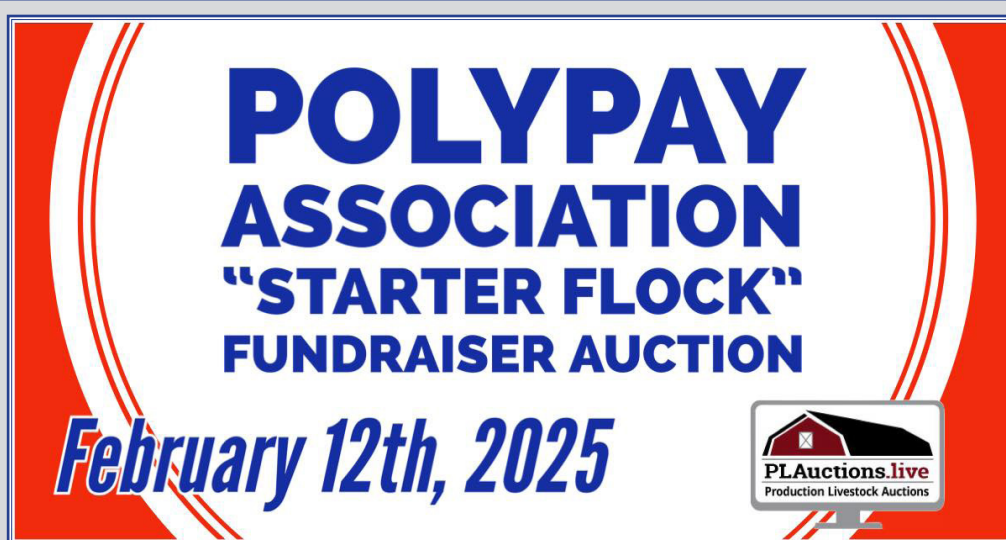


The post weaning weight breeding values express the difference in weight gain for the offspring of this animal from weaning to market compared to the breed average for that trait when the cross flock data was first established. Data for both charts above are from the July 15, 2024 data run from Sheep Genetics Australia.

How have these breeders managed to make these strides while the US sheep industry as a whole has made little progress? The Polypay breed has a greater percent of their seedstock producers active in the National Sheep Improvement Program than any of the other more prominent commercial sheep breeds. By making mating decisions based upon breeding values established by this program rapid changes have been documented. Traditionally, those mating decisions have been made by visual appraisal of potential sires. Unfortunately that method has resulted in both the national lambing rate and growth rates showing virtually no change over the past 50 years. Breeders involved in this program submit data via computer to Sheep Genetics Australia who are responsible for processing the data and reporting the breeding values back to the breeder.

The Polypay breed is currently involved in a project where DNA samples are being collected on thousands of Polypay sheep with the goal establishing genomically enhanced breeding values making our current EBV's more reliable and establishing breeding values for traits not easily measured through traditional methods.

For more information about Polypay sheep with breeding values contact the National Sheep Improvement Program at [NSIP.org](http://NSIP.org).



## Starter Flock Fundraiser Helps Kids Get into Sheep!

The 2025 Polypay Association Starter Flock Fundraiser Auction is February 12th, 2025 on Production Livestock Auctions.

We are accepting donations for this great fundraiser sale. Donations of any size or value are greatly appreciated. Individual ewe lambs, sale credit, feed, gift cards, hats, farm apparel, meat, services you may offer are all great ideas for donations. Email [zach@plauctions.live](mailto:zach@plauctions.live) to donate to the sale. If you do not donate, we sure hope you support the cause by bidding in the sale.

We are also accepting applications to win the starter flock grant! Any kids 13-18 whose family does not raise registered Polypays can apply! Contact Zach Meinders, [meinders2@hotmail.com](mailto:meinders2@hotmail.com).

**American Polypay Sheep Association  
2025 Starter Flock Grant  
Application**

Name: \_\_\_\_\_ Date of Birth: \_\_\_\_\_

Address: \_\_\_\_\_

City / State / Zip: \_\_\_\_\_

Telephone: \_\_\_\_\_ Email: \_\_\_\_\_

Parent or Guardians Name: \_\_\_\_\_

Does your family currently raise livestock? \_\_\_\_\_ If yes what kind/breed? \_\_\_\_\_

If awarded the flock you must attend the 2025 APSA Annual Meeting at Spencer, Iowa, can you be there?

Obtain all signatures required and attach the following to this application:

- . A short paper on why you think you should be awarded the flock.
- . A video or pictures that show your facilities and feed sources that will be used to take care of the flock.
- . A signed letter of recommendation from a 4H or FFA adviser or from a current APSA member.
- . A signed letter from your parents or guardian stating their approval of your application and acknowledging all the responsibilities that will be required of you if awarded the grant.

Mail or email completed application to:

American Polypay Sheep Association  
Nicole Jessen, Treasurer  
17146 377<sup>th</sup> Ave.  
Redfield, SD 57569  
Phone (605)460-1932  
Nljessen87@gmail.com

By signing below, we affirm that we have read all requirements and procedures and agree to abide by them if chosen to be the recipient of the APSA Starter Flock grant:

\_\_\_\_\_  
Applicants Signature

\_\_\_\_\_  
Parent / Guardians Signature

Date: \_\_\_\_\_

**American Polypay Sheep Association  
Starter Flock Grant Program  
2025**

**Purpose:**

To promote the growth and usefulness of the Polypay Breed, and to encourage youth involvement and education in the breed.

**Who may apply?**

Any American Citizen ages 13-18 whose family does not raise Polypay Sheep.

**The starter flock Grant will consist of:**

A one-time \$2000 grant from APSA to be used for the purchase of registered Polypay ewes or ewe lambs from a current APSA member of their choice. A purchase agreement between the APSA member and the grant recipient must be submitted to the APSA board of directors for approval by June 1, 2025. Funds will be distributed to the owner of the flock that is chosen upon transfer of registration.

**Promotion:**

The APSA Starter Flock Program will be listed on the APSA website and advertised in various magazines and outlets. Promotion by current members will be strongly encouraged.

**Policy and protocol:**

1. A completed application with supporting materials must be submitted to the APSA by April 1, 2025.
  - a. **Essay:** The applicant must write a short paper on why they think they should be awarded the grant.
  - b. **Video / Pictures:** The applicant must show video or pictures that show basic facilities and feed sources that will be provided for the starter flock.
  - c. **Signed Letters:** The applicant will need to provide two signed letters:
    - . A letter from the applicant's parents stating their approval of the application and their responsibilities.
    - . A signed letter of recommendation from a 4H or FFA adviser or from a current APSA member.
2. Completed applications with other materials needed will be reviewed by the APSA board of directors and the top 3 applicants will be chosen.
3. Of the top 3 applicants, 1 winner will be chosen by the board of directors and notified by the current president of the APSA.
4. The winning applicant will be notified by July 1, 2025. And will be awarded the starter flock at the annual APSA meeting in Spencer, Iowa.
5. **Attendance at the annual meeting will be mandatory.**
6. The winner will be given a one-year membership to the APSA.
7. The grant recipient will be assigned an APSA member mentor in close proximity. The mentor will provide advice and support to the recipient and will be required to check on the animal's welfare.
8. Basic needs of the animals must be always provided. If the basic needs of the animals are not met as determined by the mentor, the recipient must return all the animals to the original flock owner at the cost of the recipient.

## APSA Starter Flock Grant application questions.

1. What kind of experience do you have in the livestock industry if any?
  2. What do you know about the Polypay Breed?
  3. What are your plans or goals that you want to accomplish with a starter flock of Polypay Sheep
    - A. Short term goals?
    - B. Long term goals?
  4. What do you know about the National Sheep Improvement Program?
  5. Describe the facilities and feed sources that you will be using to care for your sheep
  6. Are you involved in any organizations such as 4H or FFA?
  7. What are some of the advantages of raising Polypay Sheep and describe their unique qualities that sets them apart from other breeds?
  8. What or how will you contribute to or give back to the APSA?
- 



**OHIO SHOWCASE  
SHOW AND SALE**  
**MAY 8-10, 2025**  
Darke County Fairgrounds  
Greenville, Ohio



**CENTER OF THE  
NATION SALE**  
**JULY 26, 2025**  
Spencer, Iowa

---

## APSA Board of Directors

<b>Jeremy Refshaw, President</b> 1339 290th St. Waubun, MN 56589 <a href="mailto:refsahwrench@yahoo.com">refsahwrench@yahoo.com</a>	2025-1 218-230-5383	<b>Kayla Inbody</b> 10356 Cty Rd. 30 Dunkirk, OH 45836 <a href="mailto:Flinn_13@hotmail.com">Flinn_13@hotmail.com</a>	2027-2 419-306-2451
<b>Zach Meinders, Vice President</b> 42645 20th Ave Buffalo Center, IA 50424 <a href="mailto:Meinders2@hotmail.com">Meinders2@hotmail.com</a>	2025-1 515-320-3835	<b>Scott Wollin</b> 7044 Snow Camp Road Snow Camp, NC 27349 <a href="mailto:swollin@wikel.com">swollin@wikel.com</a>	2026-1 218-686-5513
<b>Matt Chadwick, Secretary</b> 200 Shadow Circle Murray, KY 42071 <a href="mailto:chadwicksheepcompany@gmail.com">chadwicksheepcompany@gmail.com</a>	2027-2 270-227-8731	<b>Mark Meurer</b> 1869 Midway Road Ashton, IL 61006 <a href="mailto:Meurer66@gmail.com">Meurer66@gmail.com</a>	2026-2 815-973-5576
<b>Nicole Jessen, Treasurer</b> 17146 377th Ave. Redfield, SD 57569 <a href="mailto:nljessen87@gmail.com">nljessen87@gmail.com</a>	2025-1 605-460-1932	<b>Beverly Berens, Editor</b> <a href="mailto:uphillfarm494@yahoo.com">uphillfarm494@yahoo.com</a>	616-886-1909

# Sheep GEMS: Genetic Diversity within Breeds

*Source: ASI Weekly*

The genetic diversity available within each sheep breed gives us tremendous opportunity to make genetic improvement. That snapshot of the genetic diversity currently available is extremely valuable since it provides a benchmark for comparing the consequences of selection over time in individual breeds. To establish that starting point, we used both pedigree- and molecular-based information to assess genetic diversity in the four breeds involved in Sheep GEMS.

For each of the breeds we evaluated – Katahdin, Polypay, Rambouillet and Suffolk – we found substantial genetic diversity. That coincides with low inbreeding levels. So, what do we mean by inbreeding? Inbreeding arises from the mating of relatives, which leads to an increased chance that a lamb inherits identical copies of an allele from both its sire and dam. Such an increase in homozygosity is not necessarily bad. In fact, it is almost inevitable in a selection program where we retain rams and ewes with more favorable genotypes – or packages of alleles – for breeding.

However, inbreeding does come with risks. Often, deleterious alleles are recessive. When that is the case, with inbreeding they will appear together in a homozygous state more often. That results in an expression of their deleterious effects. Such negative consequences of inbreeding are most seen in fitness traits such as health and reproductive success.

Increased inbreeding also coincides with reduced genetic diversity in a breed in general. Our ability to achieve good genetic progress in the long term depends on our having genetic variation to work with. So, in a well-designed breeding program, we need to balance an increase in inbreeding with strategies to track and maintain genetic diversity.

Another important concept related to genetic diversity is the effective population size –  $N_e$  – which is the number of individuals that effectively participate in producing the next generation. In other words, it is an estimate of the number of active breeding animals. The  $N_e$  is usually much less than the actual size of the population. We expect an  $N_e$  of 50 to lead to a rate of inbreeding of only 1 percent per generation. Consequently, we recommend an  $N_e$  of at least 50, although preferably at least 100.

For Polypays, current pedigree-based inbreeding was 3.5 percent with an annual rate of inbreeding of 0.069 percent per year. The  $N_e$  ranged from 41 to 249 for pedigree-based methods and 118 for the molecular-based method. Furthermore, from our analyses of Polypay, the breed has become differentiated from the foundation flock at the U.S. Sheep Experiment Station, likely due to different selection objectives among National Sheep Improvement Program flocks.

The take-home message from these studies is the genetic diversity of these four breeds is substantial and we can feel confident moving forward with genomic selection. However, we should repeat these analyses every 10 to 15 years to ensure we continue to maintain that genetic diversity.

For further information contact Dr. Carrie Wilson at [carrie.wilson@usda.gov](mailto:carrie.wilson@usda.gov).

**Acknowledgements.** We thank American sheep associations and breed organizations, the National Sheep Improvement Program, and sheep producers, for their contributions to this research. We supported this work through the Organic Agriculture Research and Extension Initiative (grant 2016-51300-25723/project accession no. 1010329), and by the Agriculture and Food Research Initiative Competitive Grant (grant 2022-67015-36073/project accession no. 1027785), from the USDA National Institute of Food and Agriculture. The USDA is an equal opportunity provider and employer. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the USDA.

*Source: Sheep GEMS*

