



# 4-H INDIANA STATE FAIR LIVESTOCK DNA SAMPLE INFORMATION

ATTENTION to anyone planning to bring livestock to the 4-H Indiana State Fair!

Beef and Dairy Cattle, Meat Goats, Sheep and Swine must submit DNA hair samples by May 15th to Harrison County Extension to be eligible for Indiana State Fair 4-H Animal Shows.

See the instructions below (by species) for how to collect DNA samples for your livestock.

For instruction videos, use this link and scroll to the animal species:  
<https://extension.purdue.edu/.../animal-identification.html>





## Beef and Dairy Cattle DNA Hair Sample Collection Instructions

Please read instructions completely before beginning process. This is required for all beef and dairy cattle (market steers, market heifers, registered heifers, commercial heifers, dairy feeder steers, dairy heifers and dairy cows) that you want eligible for the 4-H beef cattle show and 4-H dairy cattle show at the Indiana State Fair. Collection Envelopes are available from your County Extension Office. Samples are due to your local Extension Office by May 15th.

1. Gather supplies (brush, pliers and collection envelopes) and secure animal in a chute/head-gate. Use the brush to clean the tail switch area by removing dirt and other contaminants. Make sure area is dry before collecting hair.
2. Be sure pliers are clean and dry. Place the pliers close to the tail and pull enough hair such that the sample is about the size of a pencil. a. Be sure to pull the hair directly away from the animal, not at an angle. This will allow the follicle to come out with the hair. b. Do not cut the hair from the animal as the roots must be present for DNA analysis.
3. Repeat process, 2-3 pulls may be necessary to get enough hair (a minimum of 30 hairs).
4. Visually inspect hairs to ensure follicles are attached. If follicles are not present, discard sample and start over.
5. Place the sample directly into the self-sealing collection envelope and complete the appropriate information on the front of the envelope. Avoid touching the hairs and using plastic bags.
6. Repeat the process for remaining animals. Clean/disinfect pliers and hands between collections to prevent contamination of sample. Animals that are co-enrolled with siblings only need one sample. Just be sure to list all siblings on the envelope.
7. The sealed collection envelopes with the information completed on the front of envelope should be turned into the County Extension Office at the same time as the animal ID deadline in Indiana 4-H Online: May 15th for market steers, market heifers, registered heifers, commercial heifers, dairy feeder steers dairy heifers and dairy cows (or earlier deadline set by county).
8. Please refer to the Indiana State Fair 4-H Entry Book for more information on DNA and other project requirements.
9. A “how-to” video is available on the Indiana 4-H Beef and Indiana 4-H Dairy Project pages:  
<https://extension.purdue.edu/4h/Pages/project.aspx?proj=2>

For questions about this process or 4-H beef or 4-H dairy cattle ID, please contact your county 4-H Educator, or Courtney Stierwalt (dickerso@purdue.edu).



## Sheep and Meat Goat DNA Hair Sample Collection Instructions

Please read instructions completely before beginning process. This is an eligibility requirement for the 4-H sheep and 4-H meat goat shows at the Indiana State Fair. Collection Envelopes are available from your County Extension Office. Envelopes should be turned into your County Extension Office by May 15th.

1. Clean the hair collection area to remove dirt and other contaminants. Make sure the area is dry before collecting hair. **DO NOT SUBMIT WOOL-** this will not be accepted.

### SHEEP:

- a. Recommended site is a tuft of hair on the leg of the animal between the toes. **NO WOOL WILL BE ACCEPTED!**
- b. It seems that the longer the hair, the more likely you will be to get follicles.

### GOAT:

- a. Hair may also be collected from other coarse areas of longer hair on goats. Including: over the withers, chest, rump, tail, fetlock, or poll of your 4-H Meat Goat.

2. Use pliers to **pull** the hair. Make sure pliers are clean and dry.

- a. Pull the hair directly away from the animal, not at an angle. This will allow the follicle to come out with the hair.
- b. Do not cut the hair from the animal as the roots must be present for DNA analysis.

3. Repeat pulling process. 5 pulls may be necessary to get enough hair (a minimum of 40 hairs).

4. Visually inspect hairs to ensure follicles are attached. If follicles are not present, discard sample and start over.

5. Place the sample directly into the self-sealing collection envelope and complete the appropriate information on the front of the envelope. Avoid touching the hairs and using plastic bags.

6. Repeat the process for remaining animals. Clean/disinfect pliers and hands between collections to prevent contamination of sample. Animals that are co-enrolled with siblings only need one sample. Just be sure to list all siblings on the envelope.

7. The sealed collection envelopes with the information completed on the front of envelope should be turned into the County Extension Office at the same time as the animal ID deadline in Indiana 4-H Online (May 15th).

8. A "how-to" video is available here: [https://www.youtube.com/watch?v=KyX83daT-UU&\\_ga=2.81389715.520919190.1682962242-1503818624.1682962242](https://www.youtube.com/watch?v=KyX83daT-UU&_ga=2.81389715.520919190.1682962242-1503818624.1682962242)

9. Please refer to the Indiana State Fair 4-H Entry Book for more information on the DNA and other project requirements.

10. For questions about this process or 4-H sheep and meat goat ID, please contact your county 4-H Educator, or Courtney Stierwalt (dickerso@purdue.edu)



## Swine DNA Hair Sample Collection Instructions

Please read instructions completely before beginning process. This is required for all pigs that you plan to exhibit in the 4-H swine show at the Indiana State Fair. Collection Envelopes are available from your County Extension Office. Samples are due to your local Extension Office by May 15th .

1. Clean the hair collection area to remove dirt and other contaminants. Make sure the area is dry before collecting hair.
  - a. Recommended site is loin or rump, but if animal has been shaved, other areas include between the toes, on the jowl/face, inside the ear or around the tail head.
  - b. It seems that the longer the hair, the more likely you will be to get follicles.
2. Use pliers to **pull** the hair. Make sure pliers are clean and dry.
  - a. Pull the hair directly away from the animal, not at an angle. This will allow the follicle to come out with the hair.
  - b. Do not cut the hair from the animal as the roots must be present for DNA analysis.
3. Repeat pulling process. 5 pulls may be necessary to get enough hair (a minimum of 40 hairs).
4. Visually inspect hairs to ensure follicles are attached. If follicles are not present, discard sample and start over.
5. Place the sample directly into the self-sealing collection envelope and complete the appropriate information on the front of the envelope. Avoid touching the hairs and using plastic bags.
6. Repeat the process for remaining animals. Clean/disinfect pliers and hands between collections to prevent contamination of sample. Animals that are co-enrolled with siblings only need one sample. Just be sure to list all siblings on the envelope.
7. The sealed collection envelopes with the information completed on the front of envelope should be turned into the County Extension Office at the same time as the animal ID deadline in Indiana 4-H Online (May 15th).
8. Please refer to the Indiana State Fair 4-H Entry Book for more information on DNA and other project requirements.
9. A “how-to” video is available on the Indiana 4-H Swine Project page:  
<https://extension.purdue.edu/4h/Pages/project.aspx?proj=14>

For questions about this process or 4-H swine ID, please contact your county 4-H Educator, or Courtney Stierwalt (dickerso@purdue.edu).