



# ANDDA

## AMERICAN NIGERIAN DWARF DAIRY ASSOCIATION

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## Rump Structure & How It Affects Mammary System

By Lorelei Hallock, Coyote Kidz

Rump- strong, uniformly wide and nearly level from hips to pin bones and thurl to thurl; thurls set two thirds of the distance from hips to pin bones; well defined and wide pin bones set slightly lower than the hips; tailhead slightly above and smoothly set between pin bones; tail symmetrical to body and free from coarseness; vulva normal in size and shape in females (normal sheath and testes in males).

Sr. Does-5 Jr. Does- 7 Bucks-6

Recently ADGA made changes to the official score card separating the rump into its own sub-category under general appearance. This is a really good change to emphasize just how important the rump structure is in relation to milk production. Quoting advanced ADGA Judge Trinity Smith Malmanis, the rump is like a garage for the mammary. We want Mac Truck sized udders, but if we have a garage built for a Prius and we try to park a Mac Truck in that garage, there is going to be damage to both the vehicle and the garage. So how exactly does the rump effect the mammary? Let's take a closer look.

First off, when we start honing in on one aspect of the scorecard, it is important to keep in mind other aspects of the animal's conformation and how biomechanics of one trait will affect other traits. In other words, the rump needs to be balanced with the rest of the body. We as breeders like seeing long rumps but that length should be in proportion to the rest of the back. The chine, loin and rump should be relatively equal in length for each of those parts to be level and smoothly blended into each other. When one of those parts is too short or excessively long, the other parts can be thrown off kilter. Much like when you have a set of link-n-logs. If one log in the basic frame is the wrong length the balance and structure is then warped. When we're looking at a goat and we notice a steep rump, that can be caused from the rump structure being too short (from hips to pins) or too long in proportion to a shorter chine or loin. While a steep rump isn't ideal some slope from the hips to pins is necessary. If the rump is too level or the pins are higher than the hips, we may start to see issues with conception rates as the cervix is put in a position that makes breeding difficult. This can also cause issues after kidding with those goats not being able to fully flush the birthing fluids which could lead to infections.

The length of rump will directly affect the capacity of the mammary when viewed from the side profile. When we look internally, the mammary is primarily supported by the medial suspensory ligament. This divides the halves of the udder and connects to the hip bone structure to hold the mammary close to the body. Much like supportive trusses on a bridge, the hips need to be a

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## YOUTH

### **First Quarter Quiz Points for EOY Awards**

Paul Goodchild

Emma Magee

Ethan Magee

Ryker Taylor

Gracie Wingo

Harley Wingo

Willow Wingo

### **EOY Points To Date**

Paul Goodchild—Senior Doe—1 point

Ethan Magee—Senior Doe—6 points

### **Ambassadors**

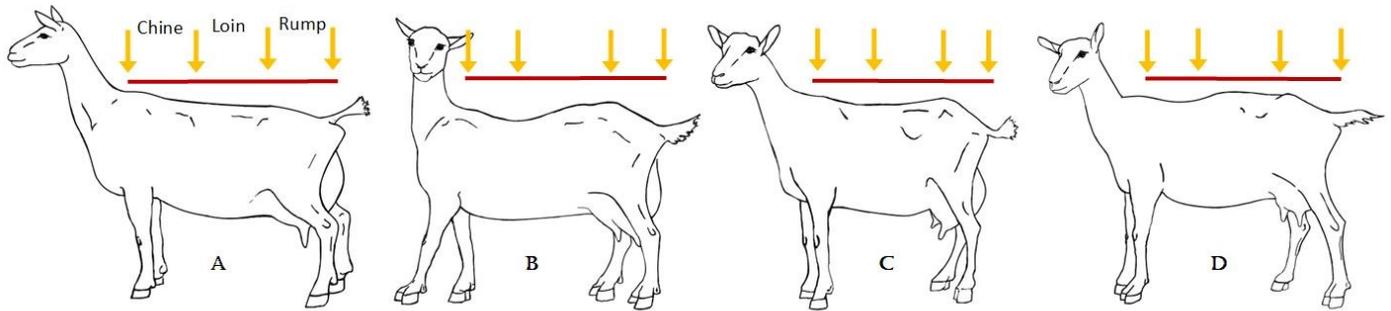
We have an application online and will be making selections to coordinate with our Board of Director elections.

The Youth Ambassador Program is designed for selected youth to fellowship and mentor with other youth Nigerian Dwarf breeders, encourage other youth breeders to be involved in goat-related activities, offer guidance on available programs and fun activities. The Youth Ambassador can provide insight to the Youth Committee about improvements to youth programs, and act as a liaison for new activities and ideas from the youth in their district. We do not encourage youth to speak to adults they do not know, and to always stay under the supervision of their guardians.

Please write and upload a short essay describing your activities within the goat industry and why you want to be a Youth Ambassador. Please include any additional information you feel will help you be the best youth ambassador for the ANDDA club.

It isn't too late to participate in any of the youth programs! Visit the website to forward end-of-year points within 60 days of the date of the show or apply for one of our four Youth Ambassador positions!

<https://www.andda.org/youth-programs>



Doe A is closest to what we would consider ideal balance. The chine, loin and rump are blended together and close to equal in length. Doe B has a short chine, and a long loin. This causes the rump that is otherwise moderate in length to not be level from hips to pins. Doe C has moderate length to the chine and loin but a short rump in comparison. This causes the rump to have a very steep angle. Doe D has a long loin in comparison to her rump and chine causing roaching in the loin.

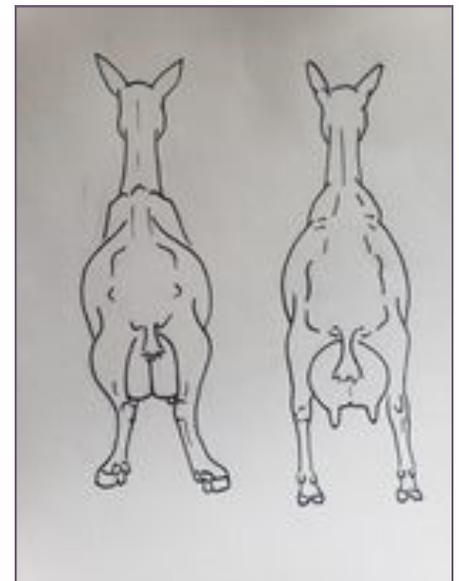
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sturdy wide structure for the cables or connective tissue to attach to. A short and narrow rump then allows for less area for that connective tissue. Does with a short rump will often have little to no extension or fullness in the fore udder. Does with a longer rump structure tend to have more balanced capacity, one-third of the capacity visible in front of the leg, one-third under the leg, and one-third behind the leg.

We talk about width a lot in several aspects of the scorecard, and the rump is no exception. Width is what allows a goat to have room for birthing kids and a full mammary system when viewed from the rear. Anyone who has ever had to reposition a kid will tell you how much easier it is when a doe is naturally build wide and “roomy” for those kids with really big heads to come out. Width in the rump is also going to give more space between the rear legs for a larger “Mac Truck” mammary. When we have a doe that is not showing width between the thurls and/or pins, that doe is going to have a more difficult time moving her legs around a very full udder. This can lead to bruising and if severe enough, cause chronic issues with mastitis from that bruising. The wider hip structure is equivalent to stronger framework of a larger garage. When there is lots of width from thurl to thurl, the hip joint is going to allow a smoother motion of the femur and thus a stronger straighter motion in the whole leg as the goat moves. If the pin bones are wide with the rest of the hip structure, that will help the width of the rear udder and arch into the escutcheon. The continued width of the hips will

allow the goat to have more natural width between the hocks, again allowing for the rest of the leg to function smoothly, walking around a large mammary instead of rubbing against it.

There are many more things that can be said about the rump, but these few things are a good start when learning to look at the rump of a dairy goat. Keep in mind this is just one portion of a bigger picture. Each part of the goat is going to have a function with cause and effect on other parts of the goat. Learning to understand the function of each area of the scorecard is a step in understanding the building blocks we use to breed balanced, healthy and efficient dairy goats.



## ELECTIONS

Elections are upon us! Nominations will be taken for President, Director at Large, one Eastern Director and one Western Director until May 15.

Each member email address should have received a nomination form on May 1. Please make sure the individual you wish to nominate is agreeable to run for office. No individual may be nominated for more than one position. If an individual is nominated for more than one position, they may choose which position they wish to be considered for.

Balloting will close on June 15. Elected members will take office on July 1.



## Committee Happenings:

MEMBERSHIP: The private on-line Facebook discussion page was recently purged of members not on our 2022 paid list. If we removed you in error, please reach out.

WEBSITE: Do you have an animal that received recognition for an [excellent score](#)? Win a [Best in Show](#)? Earn [Superior Genetics](#)? Be sure and upload the information to our website so we can share in your excitement!

YOUTH: We are taking nominations for Youth Ambassadors! Form is on the website. Have you tried our first quarter Youth [quiz](#)? Points given for participation and count toward end-of-year awards. Also, remember to submit your show points within 60 days of a show for it to count.

### SPECIALTY SHOWS:

ADGA District 4 Land of Lincoln Nigerian Goat Club *July 23, 2022*

AGS District 5 HNDGA/ Arbuckle *June 5, 2022*

ADGA District 7 Wyoming Dairy Goat Assoc *August 13, 2022*

## Tax Exemptions

*By Jessie Rymel, Wild Vine, Texas A&M AgriLife Extension Agent- Agriculture and Natural Resources*

As a county agent— and as someone who definitely spends too much time on facebook— I often hear or see it asked, “How can I get a tax exemption?”

The simplest answer to this question is you can't. You will always have to pay taxes in some form, and should want to as we all enjoy the services our tax dollars provide. If you are opting to participate in agricultural production however, there are a few ways that you can enjoy some benefits concerning sales tax and property taxes.

Concerning property taxes, the rules and guidelines that you must follow are set by your state and county respectively. There will never be a time when you are exempt from property taxes. The correct term for property tax adjustments due to agricultural production is an Agricultural Land Valuation. This essentially means that you will pay property tax on the amount your land is able to produce as opposed to the amount it is actually worth. The difference in this amount can be substantial depending on where your property is located.

Ag land valuations are also called 1-D-1 valuations and are handled by your county's appraisal district. 1-D-1 valuations can be granted for livestock production, forage production, apiaries, and even wildlife management in some counties. In order to find out what you are eligible for, you will need to contact your county's appraisal district. One thing to keep in mind is that there will be low-end limits on what is considered agricultural production. You must be using your property to its maximum production potential. For example, if you have 10 acres and 2 65 pound goats, you will not qualify. Maximum potential is determined based on the stocking rate for your specific area and of course the species you are producing. There will be other stipulations in addition to the land usage. Most counties where I work will require a property to have been in agricultural production for 5 of the last 7 years to qualify.

The other type of tax benefit concerning livestock production is a sales tax exemption. A sales tax exemption can be used when you are purchasing anything to be used in your agricultural enterprise. This can apply to feed, t-posts, or even large farming implements. To obtain your sales tax exemption, you should contact the comptroller for your state. They should be able to provide you with the necessary paperwork to get the process started.

If you have any additional questions about tax exemptions for livestock producers, specifically dairy goat producers, make sure you reach out to your local county extension agent.

*Editor Note: The Cooperative Extension Program is a nationally funded network, with state offices at the land grant university in each state or territory. There is an Extension Office in virtually every county across the United States.*

## A Case of More Is Not Better—*Supernumerary Teat Abnormality*

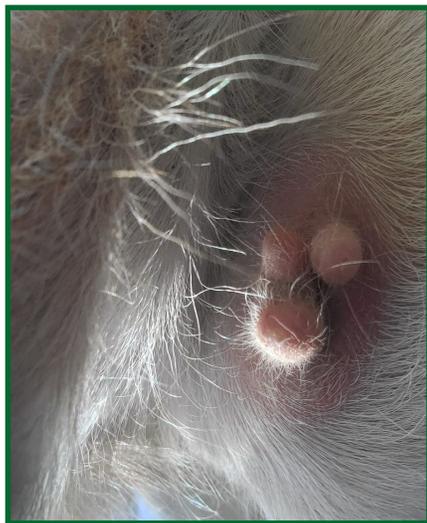
By Karen Goodchild, *OK Doe K Dairy*

“Bettering the Breed” – a phrase we all hear, but what does that mean to you as a breeder? Does this mean not registering certain offspring and selling unregistered, removing from your breeding program, taking to the sale barn, or making tacos?

There is a dirty, little secret in the dairy goat world that no one wants to discuss - teat abnormalities or hyperthelia. Teat abnormalities include supernumerary, fused, bifurcal, double orifice, or leaking orifices. Supernumerary teats can be found behind the main teat or attached to it. They are generally shorter and have thinner walls. Some may have their own mammary gland.

Supernumerary teats (SNT) are highly heritable and one of the most common abnormalities in dairy animals. SNT can have an orifice or be a blind teat. Some breeders often cut them off when an animal is young so no one is the wiser, but it can still pass on to progeny.

There is one study that indicates intrauterine hormones may play a role in SNT formation. A study of pigs shows the number of teats is partially determined by the number of males in a litter.

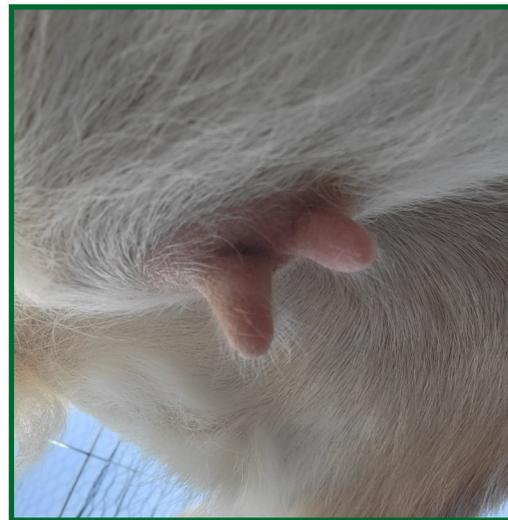


*Teat abnormalities can sometime show up on the main teat, often called a fish tail.*

Both American Dairy Goat Association and American Goat Society

identifies teat defects as a Very Serious to Disqualifying trait.

ADGA Linear Appraisal Chair confirmed teats are not checked during appraisal; AGS verified their classifiers check for teat abnormalities, and they are more likely to catch the tell-tale signs of removal due to having more time than in a showring. Judges from both registries check to ensure there are two teats, but due to the time in the show ring it is not apt to be closely inspected.



*A double teat can interfere with milking or using a milk machine, causing it to be considered a Serious Fault in dairy goats.*

While boer goats have a high incidence of teat abnormalities, it is not regarded to the same degree as the defect of dairy goat registries.

A SNT study in Brazil indicated a 27 percent incidence out of 131 dairy goats in one study, proving it is a fairly common trait. The only way to effectively eradicate this trait is to cull it from your herd.

“My impression is that teat abnormalities are genetically linked but exact genes may not have not been found,” Dr. Roger Merkel of Langston University said. “On the weeping teat study, heritability was not very high. On supernumerary teats in Holstein, the

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heritability was higher and there is more information on specific genes responsible.”

While a supernumerary or double orifice teats are not usually a disqualification in does, one has to ask if this is a trait to be associated with your herd name. Sure, extra teats can be removed – quite often successfully – but at what cost to your herd and your reputation?

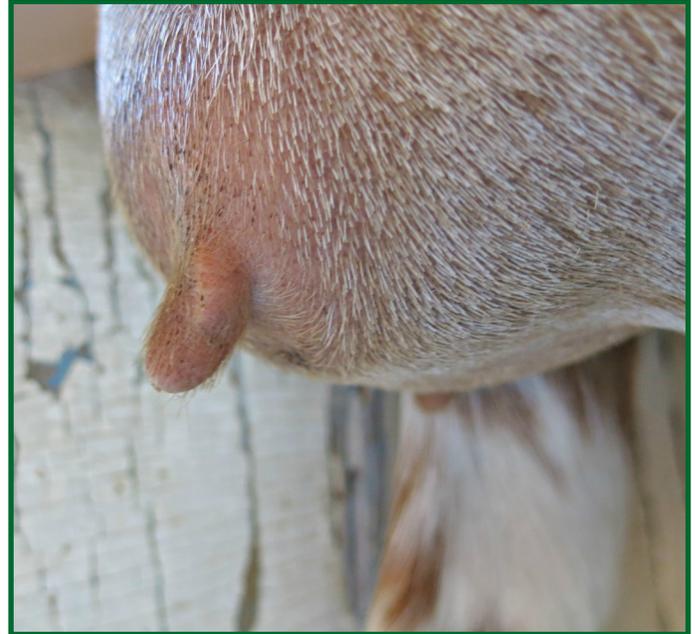
A prominent dairy cattle producer once commented, “It’s okay to have it in your dairy parlor, but not in the showring.” The issue arises when selling kids. Do you share the questionable dairy parlor issues to potential customers?

One anonymous member wrote they purchased a doe that had milk leaking from an area above/in front of the left teat when overly full or when pressure was applied to the area. An exam found a small opening in the udder with what appeared to be a burn mark. The original breeder confirmed the doe was born with a supernumerary teat that had been nipped off and cauterized.



*Supernumerary teats are often smaller in size.*

The pro’s of keeping offspring with a SNT is that some have claimed these animals produce more milk. Additionally, it may be able to be used to graft in the event of a main teat injury.



*Supernumerary teats can often be removed successfully with only a small scar; however damage to your herd reputation by attempting to hide a Serious Fault can be far reaching.*

The con is that it will keep reoccurring in your herd due to heritability, they can make milking difficult, and there is a higher potential for mastitis due to more openings for bacteria to enter the udder. If the SNT is removed, there is a chance it has its own milk gland that will then not be able to be emptied.

Research shows that boer goats in South Africa have a lower incidence of SNT due to their strict culling protocol. “The Boer breeders in South Africa are pretty stringent in culling does with supernumerary teats as a defect,” Merkel said. “Breeders in the US have not been as stringent, perhaps because of the high price of initial imported animals and their offspring.”

In a 2012 cattle study, four loci were identified in 2,467 progeny-tested bulls that were genotyped and their daughters evaluated for heritability phenotype. A

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2014 study of 1,097 Holstein bulls pinpointed chromosome 20 for SNT expression during a genome-wide study of the breed. It is still unclear if this trait in cattle is purely oligogenic or polygenic, but research points to a combination.

A 2000 study of Simmental cattle made up of “537 unrelated animals and 614 members of 27 paternal half-sib families with known phenotype of each sire. The frequency of hyperthelia (SNT) was 58% in unrelated animals, 51% in families with unaffected sire, and 73% in families with affected sires.”

The few cattle studies show a heritability difference between breeds. Very little research has been conducted on dairy goats specifically.

Author Parvathi K. Basrur in his study titled *Congenital Abnormalities of the Goat* verified some breeds have a higher predisposition to certain malformations. He cited “common polygenic disorders including udder problems in does and gynecomastia in bucks are more difficult to eradicate because the mutant genes responsible for these traits generally do not declare themselves until inbreeding brings together a critical concentration of liability genes to create a crisis.” In short, know your lines. This is particular daunting considering the Nigerian Dwarf breed is still in its infant stage in tracking certain breed phenotypes.

France has studied the SNT phenotype for over 15 years in the country’s appraisal program. A study in 2012 involving Alpine and Saanen showed 4 percent of the animals were not allowed to be in the elite breeding program due to supernumerary teats.

The French study of 32,908 Alpine and 23,217 Saanen found .40 and .44



*Some supernumerary teats have their own separate milking chamber. If removed, there is no way for the milk to be expressed.*

heritability of this binary trait. Further, a daughter genome-wide study was conducted of 1,185 Alpine AI-sired by 11 bucks and 810 Saanen AI-sired by 9 bucks. Seventeen regions in 10 chromosomes were found, although no major gene was identified, suggesting a polygenetic component.

It is unclear how prevalent this trait is among all dairy goat breeds. While Nigerians at one time in the U.S. had an open herd book, a 2014 Nigeria-based study showed this trait expressed in original WAD goats with a 17 percent incidence in a herd of 18 does.

We have to ask ourselves, as breeders, if we don’t want this trait in the showing, why would we allow it in our herd? If it a phenotype selection, is it ethical to fool

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people in the showring? That is an answer each breeder must decide for themselves and their own herd management.

One member suggested that if a doe with this fault is sold with papers and it is disclosed to the new buyer, there is no guarantee it won't be resold and the information withheld. This could cause a new owner to question the original herd's management practices.

Several members shared their stories that hormones during pregnancy may play a part. Pregnancy hormones has caused some member's does to grow extra teats that were not visible at birth or prior to pregnancy.

One member suggested an environmental cause of dewormer during one season when it was prevalent in a particular herd, although a reputable goat vet has dismissed this citing "correlation does not mean causation." Another member confirmed in her herd that the incidence was not based on any particular dewormer, such as Valbazen.

A well-known standard breeder vet suggested to keep accurate records. This vet sells her supernumerary animals to a dairy as unregistered animals rather than keep them in her herd. Tracking breedings can help eliminate it in your herd,



*If you breed livestock long enough, issues will arise that will leave you making an ethical decision. It is important to decide how to respond before emotions play a part.*

pinpoint potential issues, and help make future breeding decisions.

There are rumors that this trait is "unlucky" and sometime appears, while research has shown polygenetic markers and highly heritability. Members wrote in that it can happen with an outcross or linebreeding; that it only happens once or repeatedly; that it can appear to be environmental and not always genetic; that pregnancy hormones can encourage development. Unfortunately, until more research is undertaken, we are left making our own ethical herd decisions.

Teat Defects are covered on Page 145 and 146 in the ADGA Guidebook; AGS has similar defect language.

## Research Articles on Supernumerary Teat Abnormalities

[West African Goat Study](#)

[Inheritance in Cattle](#)

[French Alpine and Saanen study](#)

[Chromosome Abnormalities in Cattle](#)

[Boer Teat Structures](#)

[Ethical Decisions](#)

[Congenital Abnormalities of a Goat](#)

[Extra Teat Removal](#)

[Supernumerary Teats in Cattle](#)

[Diseases of the Teat and Udder](#)

[Weeping Teats](#) in Alpines and Saanen

[Genome Study Finds Four QTL](#)

[Genome Study of Holstein](#)

[Males Pigs in Litter](#)

## Recipe of the Month – Macaroni Cheese

By Karen Goodchild, [OK Doe K Dairy Goats](#), courtesy of Delia Smith's One is Fun!

2-3 oz macaroni  
 1 Tbs olive oil  
 4 oz courgettes sliced with skin on (zucchini)  
 2 oz bacon, chopped  
 Salt  
For Sauce  
 1/2 oz butter  
 1/2 oz flour  
 5 fl oz milk  
 1 1/2 oz grated cheddar  
 Fresh grated nutmeg  
 1 fl oz double cream  
 Salt and freshly milled black pepper

You will need a 6 inch shallow gratin dish. Start by bringing a panful of water to the boil, then add macaroni together with salt and a few drops of oil. Bring to a boil then cook for 10 minutes.

While cooking macaroni, heat a tablespoon of olive oil in a frying pan and over medium heat, cook courgettes and chopped bacon to soften and color the courgettes. At the same time in a separate pan melt the butter for the sauce and stir in flour, then add milk bit by bit, stirring until the sauce is smooth. Now leave it to cook gently for 4-5 minutes, then stir in grated cheese, seasoning of salt, pepper, and nutmeg, and finally cream.

When macaroni is ready, drain in a colander, return to hot saucepan, along with courgettes and bacon. Pour in sauce and stir over a gentle heat. Transfer pasture mixture to the gratin dish, mix parmesan and breadcrumbs together, and sprinkle over the top. Sprinkle a pinch of cayenne or over this, then arrange slices of tomato over the top. Place the dish under a grill for a few minutes until the top is nicely browned.

We're on the web  
[www.ANDDA.org](http://www.ANDDA.org)



**PROMOTING THE  
 NIGERIAN DWARF  
 BREED SINCE 1996**

Editor:  
 Karen Goodchild  
 OK Doe K Dairy Goats

Please let us know if you have a  
 comment or article idea!

### 2022 Committee Chairs

ANDDA Total Performer Committee - Hannah Pahnke

JUJU Awards - Kathy Talbott

Election Committee - ANDDA Board

ADGA Liaison - Ellen Dorsey

AGS Liaison - Open

Membership - Carol Harlan / Kathy Talbott

Specialty Shows Coordinator - Jen Dionisio

Website - [Carol Harlan](#)

PR / Facebook / Promotions / Advertising - Karen Goodchild

Youth - [Ashton Bohrer](#)