



## CASSIDY'S CORNER

# “SO, YOU THINK YOU KNOW WHO THE SIRE AND DAM ARE”

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**T**he rush of breeding season is now over and winter is settling in. Now the anticipation of what is to come in the spring starts to build. Will your hopes and dreams be fulfilled in the new crop of fawns that are on their way? Did you get good conception rates on the AIs and will your choice of which semen to put with the right does prove to be the winning combination? It will be like Christmas all over again when the fawns hit the ground in the spring. With all this in mind it is important to plan now for how you will prepare for DNA testing this year's new crop of fawns. Several people have told me that their preparations for DNA testing begin the day after a fawn is born (or at least before the fawn is too fast to be caught). They walk their pens and find new fawns in the grass. With envelope in hand, they

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pull hair from the fawn with a quick tug and put it into the labeled envelope. Some people put ear tags in the new fawns. During the process they punch a small plug of skin making the hole in the ear where the tag is attached. This small piece of tissue is perfect for us to use for DNA testing. The piece of tissue must be kept frozen or placed in an alcohol solution for preservation. Then fill out the Parent Verification Document for each sample and send it in for testing. We will confirm the correct sire and dam for each of your fawns.

Honestly, I believe that preparation for determining the correct sires and dams begins with your record keeping in the fall during the breeding season. Which does where in which pens, which bucks were where, what straws were

used for AI, and who left which gate open (even for a minute). There is no substitute for accurate record keeping on the farm. Start now making notes of anything you can think of that might help sort things out in the spring when the DNA does not come back with the results you expect.

I still have a few people tell me that they already know exactly who the sire and dam are as soon as their fawn hits the ground. Most of the time they are correct but, can you afford to be wrong even once anymore? How much is peace of mind worth to you? Several things can happen that could make your assignment of the proper sire or dam incorrect. The most common error occurs when two does have fawns overnight in the same area of the pen. Does will care for fawns that are not their own! Just because a doe is feeding a fawn that is not proof that she is the biological mother. When two does are found standing among 4 fawns the owner can only guess which fawns go with which doe. In one case, we determined that one doe actually had triplets and the other doe had a single fawn. Another common situation is caused by a fawn's ability to squeeze through the smallest hole and ending up in an adjacent pen. I don't know what motivates them to struggle through a tiny gap away from their mother but it happens more than you would ever expect. We even found one fawn two pens and an alley away from its biological mother being taken care of by another doe. Once we determined who the true father was, we were able to check the pen of does exposed to that sire and there we found the true mother of the fawn.

You might think that sire confirmations would be less difficult but this is



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not the case. There are even more scenarios that result in wrong sire assignments without DNA testing. If you only have one breeder buck on the farm and one pen of does then you might be correct in assigning the new fawns to that buck but this is rarely the case. If you have even one other buck on your farm there is a chance either could be the sire of any fawn on your ranch. One breeder could not confirm the sire of a fawn and he only had one buck in the pen, however; when the ranch manager was questioned he confessed that another buck got in the pen (only for a few hours) before he could remove him and that buck turned out to be the sire of the fawn. Some breeders used to leave yearling bucks in the pens when the does were being bred. We quickly determined that even the biggest buck cannot keep a yearling buck from breeding a few does. We even determined that if you expose does to more than one breeder buck there is a chance that she can have twins in the

spring and each fawn will have a different father.

Now if you add the possibility of artificial insemination to the breeding mix you can really complicate the assignment of the correct sire. One of the easiest mistakes happens when you are using straws of semen from several different bucks during your AI and you put the wrong straw of semen in the wrong doe. In the spring we will be able to match the doe to the fawn but the buck requested will not match. Usually we find out what other straws were being used at that time and can find the buck that is the true sire. I have been told it can get a little crazy in the shoot when you are trying to AI a number of does quickly. It also seems that relying on the timing method to determine whether the AI worked or the backup buck is the sire is not always accurate. Clearly there is a range of days after conception that a breeder expects to have a fawn born. If the time between the AI and when the doe is ex-



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posed to the backup buck is not long enough the date the fawn is born may fall in between the date expected for the AI and the backup buck. Just because the fawn may look just like the AI sire when it is born, this is not proof that the AI worked. Do you really want to guess, especially if you are going to sell that fawn to someone else? One of our most recent surprises came when we tested twin fawns and determined they were out of two different bucks. The breeder told us that they had done laparoscopic AI and put one straw of semen on one uterine horn and another straw from a different buck on the other uterine horn and that is how we ended up with two fawns from the same doe with different sires.

Finding the correct sire can be complicated by clerical errors and even technical mistakes when semen is packaged into straws. We have had confirmed cases of the wrong semen ending up in straws labeled for a dif-

ferent buck and one case where semen straws carried a mixture of two buck in them so sometimes you got an offspring from one buck and sometimes it was from another. Misreading the label on a straw of semen can also make it nearly impossible to determine the correct sire if the original straw has been thrown away. I suggest labeling the straw used with the doe's ear tag number and only tossing it once the sire of the fawn has been confirmed. If you want to DNA test the used straw at a later time keep the cotton plug in the straw and preserve it by keeping it frozen. It does not have to be kept in the liquid nitrogen but a regular house freezer works fine. We understand that it can be confusing and frustrating when the sire and/or dam of your deer does not match what you expected. Sometimes it can be a real puzzle to try and find the correct sire or dam but rest assured we will do everything we can to work with you to solve this

puzzle. But like any puzzle, you can only get a clear picture if you have all the pieces. This means we need the DNA profiles of all possible sires and dams.

To maximize the chance of finding the correct sires and dams we need the most specific information you can provide. Simply providing an animal name or ear tag for comparison is not sufficient because we have many animals with the same name or ear tag number in the registry. It is also possible that an animal's name or ear tag has been changed and the change has not been recorded in the registry. In this case, we might incorrectly indicate that the animal requested for comparison is not even in the registry. This is why it is very important to include the registry DNAS number for your comparisons. If you provide the

correct animal DNAS number we will be able to make the correct comparison for you the first time. To further identify the correct animal for comparison you can also include the breeder's name.

Breeders should be aware that when you sell an animal and a transfer of ownership has been completed, that animal is no longer in your inventory. It is now in the inventory of the new owner so if you ask for a comparison to only animals in your inventory it will no longer be included in the comparison search. This goes for the new owners as well. If a transfer of ownership has not been completed, the new deer will not show up in their inventory. If you ask for a comparison to animals in your inventory this new animal would not be included. This usually results in us not finding the sire or dam for an animal born on a breeder's farm. Either they have sold and transferred the true parent to another farm or the new

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owner has not transferred the true parent into their inventory. This is one reason it is so important that the records of the registry are kept up to date.

All the deer breeders should be aware that the NAWR now allows buck pictures to be uploaded to the on-line inventory. We have about 200 pictures now and I hope lots of new picture will be uploaded in the future. Another improvement that has been made allows NADR to return sire and dam confirmations back to breeders who submit samples using the GMS computer software package (Mike Owens toll free at 877.754.4671 or check out his web site at <http://www.wildlifemanagementsoftware.com/>) electronically. This eliminates having to enter all the sire and dam information by hand. I imagine if you have 100 samples this will save a lot of time and improve the accuracy of your personal deer database. •



**MORE INFO**

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