

One very important concept we are taught in vet school early on is that ***“reproduction is the luxury function of the organism”***. Take a minute to think about it. If our respiratory system shuts down, we die. The same applies to circulatory system, digestive system, urinary system, immune system.... pretty much every other system is more critical than the reproductive system. So, in a situation where the animal is not in perfect condition, guess what gets shut-down first? You got it! In females, this manifests as lack of response to hormonal stimulation, poor oocyte/embryo quality, failure to ovulate, failure to conceive following AI or ET and inability to carry a pregnancy to term. In males, it manifests as poor libido and sperm production, resulting in poor breeding performance, low pregnancy rates and semen samples with low sperm counts that do not tolerate freezing and thawing.

This is the reason why it is so important for reproductive success that you **prepare your animals in advance to the start of the reproductive season**. We need them in perfect health and body condition if we want to get high embryo yields in embryo donors, high pregnancy rates in does inseminated and embryo recipients, and excellent semen quality in bucks.



The following are ARS recommendations for maximizing your reproductive indexes this coming season

1. Weaning: The mammary gland has priority #1 when it comes to metabolic needs; this means it is rather difficult to improve the condition of a doe while she is still nursing. Unless it cannot be done due to the age of the fawns, we recommend all your does to be weaned 6-8 weeks prior to the intended day of breeding. When this is not possible, do it when you think it's safe for the fawns; but, as a rule, keep in mind the sooner the better. The longer the doe has to recover from lactation and return to higher body condition, the more successful any reproductive manipulations (LAP AI, ET, etc.) will be and the greater your return on investment.
2. Vaccinations: Weaning time is the perfect time for your annual vaccinations as they should be taken care before the breeding to avoid any interference or negative impact on reproduction. Also, does and fawns can be vaccinated at weaning time thereby simplifying and reducing stress (note that the vaccine dose is the same for fawns and adults). The following vaccines should be applied:

- ✓ **Covexin-8®** (2.5cc, IM): prevention of Clostridiosis (enteroxemia, tetanus, etc.)
- ✓ **Clostridium A vaccine** (1cc, IM): only in endemic areas
- ✓ **Presponse®** (2cc, SC or IM): prevention of pneumonia cause by Pasteurella

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- ✓ **Fusogard®** (2.5cc, IM): prevention of footrot
 - ✓ **Vira Shield 6+L5 HS®** (2.5cc, SC): Prevention of multiple causes of respiratory disease and abortions.
 - ✓ *Note: To facilitate the execution of your vaccination plan, call us and we'll be happy to supply all the above vaccines with specific instructions for application.*
3. **Deworming:** Likewise, weaning time is a great opportunity to treat the animals against internal and external parasites, while you run them through the chute. There are several options in the market for consideration. We prefer injectable dewormers over pour-on options as they allow better control of exact dosage administration. As a reference, consider using Dectomax® (2cc per 100 lbs of body weight, IM).
4. **Supplements and Vitamins:** In addition to improving the body condition prior to breeding, it is very important to replenish the body stores of minerals and vitamins that are important for reproduction.
- ✓ Start the animals on Enable-izer GOLD on October 1st and continue the supplementation until 2 weeks after breeding (1 scoop per 2000 lbs of body weight).
 - ✓ Inject Vitamin B12 (1cc, IM)
 - ✓ Note: If you are not supplementing Enable-izer Gold, then you should supplement Selenium and Vitamin E with injectable formulation prior to the start of the breeding season.
5. **Avoid stress:** This is a general recommendation, stress is a very negative factor for reproductive performance, and should be avoided at all stages in the process. Specifically, at this early stage in the breeding season preparation, exercise the following practices to minimize the incidence of stress:
- ✓ When weaning, place does in the breeding pens where they will remain after insemination and/or embryo transfer. These same groups will fawn-out together in these same pens reducing stress on does. To decrease stress in fawns, simply place them in pens next to their mothers.
 - ✓ If aggressive does are observed, sort them in a different pen away from yearlings and more passive does. Grouping does by age, dominance, or by similar families will help reduce stress. Keeping the same does grouped together for years will continue to decrease stress.
 - ✓ Avoid changes in diet, especially abrupt changes. If you know you will need to switch to feed from a different supplier or a new batch of hay, please plan for doing it at least 4 weeks before the scheduled breeding date.

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- ✓ Hand-feeding and giving treats to your animals whenever possible to make them comfortable about human interactions. The more accustomed your deer get to you and your facilities, the better your reproductive efficiencies will be.
6. Semen tank: Decide on your semen strategy several weeks before AI.
- ✓ For semen you are ordering, make sure to place the order and have the semen delivered to your facility at least 1 week in advance to the scheduled AI day and verify that you got the correct bucks and numbers of straws upon reception.
 - ✓ Make sure your tanks are topped with liquid nitrogen
7. Plan for help: Extra hands in abundance are necessary to ensure a smooth flow of animals while excelling at proper monitoring of the deer while under anesthesia and during recovery. Plan to have adequate help available; 12 people helping is a good rule of thumb. People will be needed to assist with surgical prepping of the does (clipping hair and disinfecting the operating area in their bellies). Also, by having more eyes available for observing the deer while sedated, we significantly reduce the risk of losses.
8. Males: If you have males that will be collected for semen freezing early in the season and/or are scheduled to be used in a demanding breeding program, it is best to place the male under our “male enhancement program” involving a weekly injection and supplements starting 4 weeks before the start of use for breeding and/or semen collection.

Always remember...a successful reproductive program, depends not just on the skills and expertise of ARS veterinarians doing the AI/ET work, but on the COMPLETE PROGRAM, which combines herd health, nutrition, proper management to avoid stress, attention to detail when executing the protocols, good facilities and availability of enough helpers, monitoring and care during and after surgery, etc. Any negative factor at any of these steps will negatively affect the program outcome.

We look forward to working with you and if you have any questions, please call us!!!

Thank you for your trust in us and God Bless!!!

The ARS Team

