Mare Care and Breeding Tips
SO YOU BOUGHT A MARE, AND you want to breed her? Great! More and more mare owners enjoy keeping their mares at home to be bred with shipped semen.

*The American Quarter Horse Journal* sat down with veterinarian Dr. Racquel Lindroth of Bozeman, Montana, to hear her advice on breeding a mare with shipped semen for the first time.

**AQHJ:** I just bought a mare, and I want to breed her with shipped semen. But I’ve never done this before. What do I do first?

**Lindroth:** First things first: You’ll need a breeding soundness evaluation on the mare to understand exactly what your expectations are going to be for her reproductive health. If you can find out previous
breeding history, it’s helpful just to know if she has ever had problems becoming pregnant or how she has performed reproductively. If a history isn’t available, then that’s all the more reason to do a breeding soundness evaluation.

You don’t perform the exam on a pregnant mare – the pregnancy speaks for itself.

**AQHJ:** What does a breeding soundness evaluation involve?

**Lindroth:** It entails very thorough physical and reproductive exams, which would involve evaluating her reproductive conformation and doing a rectal palpation and ultrasound.

Then we would do a vaginal exam, a cervical palpation and exam and a uterine culture. A culture allows us to test for any type of bacterial or fungal infection involving the uterus. We call that endometritis.

Finally, we would do a uterine biopsy. We take a small sample of tissue to determine if there is any inflammatory condition in the uterus or any kind of aging changes or fibrosis that might limit the pregnancy.

The goals are to really look at the mare’s reproductive health so that we
can come up with a prognosis or a level of expectation of what our chances are of getting her bred.

There are some decisions that are assisted by doing that exam. For example, if we found out that a mare had some evidence of inflammation in her uterus or had a low-grade infection, she might be a mare that is predisposed to endometritis, and many times, with those mares, we have to manage them more intensely.

**AQHJ:** What other decisions does a breeding soundness exam help you make?

**Lindroth:** I serve clients on an ambulatory basis. I also have the luxury of having a (clinic) facility available. For a mare that doesn’t have any reproductive problems, I will manage her on the farm. If I need to manage her more intensively, say I’m having to treat her uterus with antibiotics, lavages or for some reason she has a reproductive prob-
FIVE THINGS TO KNOW
BEFORE YOU SIGN A CONTRACT

1. Who is going to breed your mare?
Do you have a good reproductive veterinarian in your area, or will you need to take your mare to a nearby facility?

2. The fees involved
How does the stallion manager charge for collections, overnight shipments and airline shipments? Will the stud fee have to be paid in full, in advance? Will there be a deposit on the shipping container?

3. Shipping availability
Do I have overnight delivery service to my area? Does the stallion I am breeding to only ship via airline?

4. Collection schedule
Does my target breeding date fall into a time period when the stallion will be unavailable for collection?

5. Return policies
If my mare is not in foal at the end of the season, will the stallion manager require her to be on-site for a return breeding?

---

AQHJ: What next?

Lindroth: Do you have a stallion picked out? I also try to find out the target breeding date. If we aren’t trying to target a breeding date in February, then horse owners, for example, in northern Colorado, have no problem breeding their mares during the natural breeding cycle. If you leave a mare to nature, her breeding season is naturally going to be May, June and July.

There are clients who want foals born as close to January 1 as possible. In those situations, we want to try to accelerate a mare through the transitional period.

AQHJ: What’s the transitional period?

Lindroth: In the winter, mares stop cycling, and there are a lot of hormon-
al and endocrine mechanisms that shut down over the winter months. When a mare starts to think about breeding season again, she enters a time when she is hormonally priming the pump. When a mare is priming her reproductive pump, breeders say “she’s in transition,” or “she’s in her transitional cycle.”

The biggest factor that triggers a mare into the transitional cycle is increasing daylight hours. The mare’s eye senses the increase in day length, and the ovaries start developing follicles where eggs will eventually mature. In late transition, a mare will begin developing large, dominant follicles.

Her first ovulation is fertile, but a lot of times it’s a headache to predict. A mare in late transition might grow a dominant follicle.

**SHIPPING TIPS**

- In many cases, the airlines will only allow the consignee named on the airbill to pick up a shipment. If you’re not sure who will pick up the semen, it’s a good idea to have an airline shipment consigned to a farm or clinic name, rather than an individual. Don’t forget to take along a picture ID.

- Each airport and airline has its own opening/closing and pick-up policies. A stallion manager can’t tell you the procedures followed by your local airport. Your best bet is to contact the airline beforehand and ask.
her head outside the stall door to avoid the light. You want to increase day length to 16-18 hours, so keep her under lights until 10 or 11 at night. Be sure to turn the lights off; the mare has to have a night period.

AQHJ: And for the pregnant mare?

Lindroth: If your mare is pregnant, she’s going to come into her first heat, foal heat, usually the first week after foaling. She’ll

AQHJ: So, if you want an early breeding date, how do you accelerate the transitional period?

Lindroth: The only reliable way of accelerating a mare through the transitional period is to put her under artificial lighting. It takes advanced planning; you need to have a mare under lights for 60 days prior to your target breeding date. So if you want to begin breeding in February, you start her under lights in December. You need to have the mare in a stall where you have enough light to read a newspaper in any corner of the stall. Make sure that she is not able to get
have a regular cycle after that. She’ll come back into a second heat around a month after foaling. If you do want to breed your pregnant mare back before April, I would recommend putting her under lights as well. I have witnessed pregnant mares’ ovaries going inactive after early foaling.

AQHJ: What else should we consider before breeding season begins?

Lindroth: If a mare doesn’t have adequate nutrition levels, then her reproductive performance is going to be affected. For most broodmares, I like to be able to feel their ribs but not see them; and that would be a body condition scale of five to six on a scale of one to nine. Your veterinarian can help you set up a feeding program.

It becomes critical with a pregnant mare in the last

BREEDING DO’S

DOUBLE-CHECK THE ADDRESS
Before you order semen, double-check the delivery availability for your address with your overnight shipping company. When you order, always double-check the shipping address the stallion manager has on file for you.

TRACK THE PACKAGE
Make sure you get the tracking number for the shipment so you can track it immediately if it doesn’t show up on time.

If you’re expecting a shipment by air, get the eight-digit airbill number, the person it is consigned to, and all the flights it has to make along the way. Before you head to the airport to pick it up, check the flight status by phone or online.

BE THERE WHEN IT ARRIVES
If you’re on hand when the semen is supposed to show up, then you know immediately if it doesn’t. The sooner you can let an overnight delivery service know a shipment is missing, the sooner it can look for the package.

You can also avoid the possibility of a delivery man leaving the shipper out in the sun to await your return.
four months of pregnancy because that’s when the developing fetus has its most rapid bone growth. Nutrition is an important aspect of trying to prevent some of the developmental bone disorders that can happen in newborn foals.

AQHJ: So we’re approaching our target breeding date. What now?

Lindroth: I look at breeding through a couple of different avenues. When you’re dealing with fresh semen, the viability and longevity of the semen is longer. Therefore, your time of breeding, and your time to ovulation can be a broader window. Usually, you want your time of ovulation to be within 48 hours of your time of breeding with fresh semen.

With shipped, cooled semen you have to narrow that window. You want your breeding time to be
within 24 hours prior to ovulation. With frozen semen, it’s even narrower. Because that window becomes narrower, and we’re having to time insemination so closely to ovulation, it requires more intensive management of the mare.

A normal cycling mare has a three-week cycle: two weeks they’re out of heat, one week they’re in heat. When you see that mare come into heat, that’s when we want to be checking her via ultrasound. I monitor the developing follicle. I check the mare initially every other day, and then at least every day as we get nearer to the time of breeding.

**AQHJ:** When do you order semen?

**Lindroth:** I want to give the stallion manager at least 24-36 hours notice about what our target breeding date is. When I establish that there is a dominant follicle that is maturing normally along with signs of heat, then I’ll go ahead and order semen. When there is a dominant follicle, I can induce the ovulation to help time the insemination.

**AQHJ:** How do you induce a follicle to ovulate?

**Lindroth:** There are two different ways to induce ovulation. One is called human chorionic gonadotropin; it’s an intravenous injection. HCG will induce ovulation within about 36 hours.

The second agent is GnRH, gonadotropin-
releasing hormone. We call that Ovuplant. That is an implant that is given subcutaneously in mares. It will induce ovulation within about 40 hours.

There are advantages and disadvantages to both. HCG is less expensive. It can also be less effective if it’s given multiple times throughout a mare’s breeding history. Sometimes it is less reliable as to the exact timing of ovulation.

Ovuplant is more expensive. It has a more precise timing of ovulation once it’s given. The standard practice right now is to administer it, and then once the mare has ovulated, to remove the pellet you implanted. There has been a history of mares not coming back in to cycle normally if the pellet is left under her skin to dissolve on its own.

**AQHJ:** And then you breed?

**Lindroth:** I will arrange a time to inseminate the mare based on what the expected delivery time is of the shipment.

If the stallion manager shipped two doses of semen, many times I will inseminate both doses at that time, especially if the mare has already been induced to ovulate. If the volume is too high, then I’ll hold one dose and breed her the next day. I don’t do a post-ovulation

---

**BREEDING DON’TS**

**DON’T LEAVE IT IN THE SUN**

Although shippers are designed to maintain a constant internal temperature through a variety of weather conditions, you want to help them out as much as you can. If the shipper needs to sit a while until the veterinarian arrives, keep it in a cool spot.

**DON’T OPEN THE SHIPPER**

It should remain closed until your veterinarian is present and ready to inseminate your mare. Each shipper is designed to maintain the semen at an ideal cooling temperature. Opening affects the shipper’s insulating ability.

**DON’T WARM UP THE BREEDING DOSE**

The semen should go straight from the shipper to the mare. It’s the mare’s job to warm it up.
breeding if I’ve had an appropriate insemination prior to ovulation.

My rule of thumb is that the mare is always a better incubator of the semen than the container. It’s where it’s supposed to be.

AQHJ: Do you evaluate the semen?

Lindroth: Sometimes evaluating the semen is limited on an ambulatory basis. Not all practitioners have a microscope that they can take into the field with them. It’s another advantage of having the mare at a facility.

If you’ve gone into a second breeding situation and don’t know the semen quality, get it evaluated.

AQHJ: With a pregnant mare, do you breed with shipped semen on her foal heat?

Lindroth: It’s ideal to have at least 10 days before breeding the mare after foaling so two things can happen. First, so her uterus can come back down to normal size and, second, so she can clear
up any low-grade bacterial infection or post-foaling fluid. Studies have shown that if a mare is going to ovulate after day 10 post-foaling, her ability to become pregnant is much higher than if she ovulates sooner than 10 days.

I usually check a mare by day six or seven after foaling. If she looks like she’s going to ovulate quickly, I recommend that we wait and short cycle her.

**AQHJ:** What is short-cycling?

**Lindroth:** When a mare ovulates, a structure called a corpus luteum forms on the ovary where the follicle ruptured. The CL sends out hormones, progesterone, that serve to kick a mare out of heat. In a normal cycle, that out-of-heat period can last two weeks or longer. A shot of prostaglandin will cause the CL to regress sooner, allowing the mare to come back into heat sooner. In essence, you shorten her out-of-heat period.

**AQHJ:** Any final suggestions?

**Lindroth:** One of the most important things I stress is that we have got to be in good communication with the stallion manager. This is a team effort.

My job is to optimize the mare’s chances of becoming pregnant. I don’t become involved with the business and contractual relationship between you and the stallion manager. It is not my place to judge how the business relationship is worked out. I offer my professional opinion; I offer my advice from experience.

All of us have the goal of getting the mare bred. If we can all focus on that goal, then communication is clear, respectful and cooperative in working toward that effort.

And don’t forget to have your mare checked at 14 days for a pregnancy! It’s the best time to take care of a twin situation, if necessary. If she’s open, she should be coming back into heat and ready to go again.