

by: Karen Briggs

A medication protocol that can induce lactation in "open" mares has changed the way prominent Kentucky Standardbred nursery, Walnut Hall Ltd., manages its nurse mare herd, while giving more than 20 rescued mares a new lease on life.

"At the 2007 AAEP convention in Orlando, Florida, Peter Daels (DVM, PhD) presented a couple of protocols for inducing lactation," explained Joe Lyman, DVM, Walnut Hall's veterinarian and general manager. "That's not really new--Dr. John Steiner at Hagyard (DVM, Dipl. ACT) [developed the technique originally](#)--but Dr. Daels also presented an adoption protocol which was immediately of interest to us."

Not only can unbred mares that have previously had at least one foal be persuaded with medication to produce milk, but the procedure also seems to stimulate maternal behavior, greatly simplifying the tricky process of getting a nurse mare to adopt an orphan foal. For an operation like Walnut Hall, which uses nurse mares routinely, it was a revolutionary idea.

"We breed to a lot of New York-based stallions," Lyman explained, "and New York state laws prohibit semen being shipped out of state. So we have to ship our mares to them, and that has usually meant leaving the foals behind with nurse mares, rather than putting them through the stress of shipping." Farm owners Alan Leavitt and his wife, Meg Jewett, have always been uncomfortable with the usual method of deliberately breeding mares, then removing their foals to make the dams available as nurse mares, he added, so this protocol presented a new opportunity.

Shortly after his return from the Orlando meeting, Lyman began sourcing mares from adoption and rescue organizations, such as the New Vocations Racehorse Adoption Program in Ohio.



"We adopted 22 mares, mostly Standardbreds, with a few Thoroughbreds and a couple of Quarter Horses," he said. "The only real criterion was that they had raised foals previously and were good mothers. Maiden mares don't respond well to this protocol.

"We even used a couple of our own mares whom we'd retired from breeding due to reproductive problems, giving them a job again," he added.

Walnut Hall used a simplified drug protocol based on a once-a-day administration of an oral domperidone gel (a dopamine antagonist which increases milk production in mares and is also used to combat fescue toxicity). "If they're going to lactate, you'll know within three to four days, usually," Lyman said. "They'll start producing watery milk, and you'll see the bag start to fill. Most mares were in decent milk production within 10 days."

Twenty of the 22 mares responded to the lactation protocol. When it came time to introduce the foster foals, Walnut Hall administered a shot of oxytocin and prostaglandin to each

mare, along with some mild sedation. This was followed by a vaginal/cervical massage, which Daels had found to be key to stimulating a maternal response.

"It was pretty neat," Lyman said. "Within a couple of minutes of doing the cervical massage, the mares would lower their heads and start nickering to the foal. It's a response called the Ferguson reflex. Sixteen of the 20 mares accepted their foals within half an hour, and the longest (time period) was a day. All 20 mares had accepted their foals within 24 hours. If you've dealt with nurse mares, you know that's an amazing success rate."

Since the induced lactation doesn't stimulate the production of colostrum (a sticky milk, high in protein and antibodies, secreted during the first 24 hours following birth), Walnut Hall found that foals aged seven to eight days were the most likely to thrive under the care of their nurse mares. "At weaning, you couldn't tell the difference. They were all big, robust kids, and their OCD (osteocondritis dissecans) rates were similar to the foals raised by their own dams," said Lyman.

"This is so much better than breeding nurse mares and ending up with unwanted foals," he added. "And the mares get a good deal out of it--they get a good life on the farm, a much better fate than they might otherwise have had."