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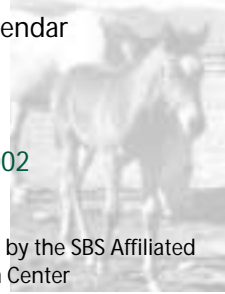
PLUS!
Frozen Semen Foals of 2002

cover foal by the International Jumper Oh Star
(Belgian Warmblood). Conceived with semen frozen by the SBS Affiliated
Laboratory Peterson & Smith Equine Reproduction Center

Select Breeders Services

www.selectbreeders.com

U.S. 877.658.3328 - Europe 39 0372 65224 - Australia 61 03 58 299 566



Summer 2002 - copyright Select Breeders Service, Inc.

Attention Stallion Owners...



Promote your commitment to quality & service.

The SBS network is fortunate to have some of the finest stallions in the world as freezing clients. To help sell frozen semen breedings to your stallion and to help Select Breeders Services promote the use of frozen semen, why not include the Select Breeders logo in your print advertisements?* Using the Select Breeders logo signals to prospective clients that your stallion's semen was frozen under the highest quality control procedures and the distribution process will be prompt, efficient, and professional.

We will be happy to supply the logo directly to you, the publications or to your designer in whatever format necessary. For further information, please contact Becky Gallant at 603-624-2745 or email at rgallant@attbi.com.

**Logo is only available to clients whose semen was frozen by a Select Breeder Services Affiliate Laboratory.*



In this issue....

Embryo Freezing,
Frozen Semen Myths,
the Poitou Donkey,
SBS Australia.

Unnamed 2002 colt by Oh Star

FOUNDATIONS

Technology & Service Strengthening the Equine Breeding Industry

Freezing Equine Embryos

As a member of the International Embryo Transfer Data Retrieval Committee, I hear reports each year of the number of frozen embryos exported for the various livestock species. There are approximately 50,000 cow embryos that are exported from the United States each year. Unfortunately, the number of equine embryos frozen is extremely small and export of equine embryos is nearly non-existent.

There are many advantages to freezing equine embryos. These include:

- Export of embryos from the US to various countries and the import of embryos into the US from some breeds.
- Banking of genetic material from extremely valuable mares.
- Decreasing the number of recipients needed in an embryo transfer program.
- Minimizing the need for synchronization of donors and recipients in an embryo transfer program.

Even with all of these advantages, freezing of equine embryos is done on a very limited scale. The three major deterrents to freezing equine embryos are the restrictions by some breeds on the registration of

foals born from frozen-thawed embryos, the expertise needed for freezing embryos and the poor pregnancy rates when freezing embryos that are greater than 0.3 mm in size and are at the expanded blastocyst development stage.

Numerous attempts have been made to freeze equine embryos. The first report of foals born from frozen-thawed equine embryos was in 1984 by the Japanese. In 1985, foals were born at Colorado State University from transfer of frozen-thawed equine embryos. Slade et al. (1985), in our laboratory, reported a 53% pregnancy rate after transfer of frozen-thawed equine embryos. In this classical study, he demonstrated that embryos less than 0.3 mm in size resulted in a very high pregnancy rate (80%), whereas those embryos greater than 0.3 mm in size provided pregnancies in only 1 of 8 attempts (12.5%). All the studies conducted since that time have confirmed the findings of these researchers, that small equine embryos freeze relatively well, whereas larger equine embryos do not survive the freezing process.

CONTINUED ON PAGE 2

E.L. Squires and L.J. Maclellan
Animal Reproduction &
Biotechnology Laboratory
Colorado State University
Fort Collins, CO 80523

SELECT BREEDERS DOWN UNDER

Select Breeders Service, Inc. in partnership with Goulburn Valley Equine Hospital announces the formation of Select Breeders Service Australia. Goulburn Valley Equine Hospital will provide semen freezing, storage and distribution services for stallion owners throughout Australia. In addition, SBS Australia will oversee and support future Affiliate Laboratories throughout Australia & New Zealand through the preparation of freezing media, training of technicians and on site quality control. SBS Australia will also act as a central storage and distribution facility for frozen semen shipped from other SBS Network laboratories to Australia. For more information about SBS Australia contact Dr. Angus McKinnon in Australia at (61) 03 58 299 566 or Select Breeders Service in the US at (877) 658-3328.



The addition of Australia to the SBS Network is great news for stallion owners wishing to distribute their stallion's semen in Australia and New Zealand. By using the SBS Network for the entire process from initial test freeze through final distribution to the mare owner, stallion own-

CONTINUED ON PAGE 7

Embryo Freezing - continued from page 1

Embryos that freeze well are generally morula or early blastocyst stage, with a very thick zona pellucida. As the embryo ages, the zona pellucida wears thin and is replaced by a thickened acellular membrane called the "equine capsule." It is thought that the equine capsule could interfere with the freezability of larger equine embryos by impeding penetration of cryoprotectants. Cryoprotectant permeability depends upon the cell type, stage of development and surface to volume ratio. Enzymatic treatment of the capsule of large equine embryos before cryopreservation increases capsule permeability and subsequent survival rates after transfer of larger equine embryos.

A recent study was conducted in our laboratory (MacLellan et al., 2002) to examine the viability after transfer of frozen-thawed small (less than 0.3 mm) and large (0.3 to 1.1 mm) equine embryos into recipients. Experiment One examined the effects of culture for six hours prior to transfer on pregnancy rates of frozen-thawed embryos less than 0.3 mm. Experiment Two examined the effects of pretreatment with the enzymes trypsin, cytochalasin B or a combination of trypsin & cytochalasin B prior to cryopreservation on pregnancy rates after transfer of embryos greater than 0.3 mm. Embryos were recovered 7.5 to 8.5 days after ovulation by flushing the mare's uterus with 4 L of pre-warmed Eicare Complete Flush solution. Upon recovery, embryos were measured and washed 6 times in synthetic oviductal fluid supplemented with amino acids and 0.6% BSA in 20 mM Hepes (SOF/Hepes). All embryos were cryopreserved in 2 steps: 5% glycerol in SOF/Hepes for 10 minutes & 10% glycerol in SOF/Hepes for 20 minutes. Embryos were loaded in 0.25-ml plastic straws, placed in a programmable cell freezer & cooled from room temperature to -6°C at 4°C/min, seeded, held at -6°C for 10 min, and then cooled at 0.3°C/min to -30°C and then at 0.1°C/min to -33°C before plunging into liquid nitrogen. Straws were thawed in air for 10 seconds followed by immersion in a 37°C water bath for 30 seconds. The cryoprotectant was removed in 6 steps: 8%, 6%, 4%, 2%, 1% glycerol for 10 min per step & finally placed in SOF/Hepes.

In Experiment One, upon thawing, 8 embryos were cultured for 6 hours before transfer and 9 embryos were directly transferred to recipients. The rate of formation of embryonic vesicles on Day 16 was not different among the frozen-thawed direct transferred embryos (5 of 9), frozen-thawed cultured embryos (7 of 8) or non-frozen controls (14 of 20). In Experiment Two, 24 embryos were transferred. Pregnancy rates for the embryos receiving no enzyme treatment were 4 of 7, treatment with cytochalasin B were 3 of 7, treatment with trypsin were 0 of 7, and rates for the combination of trypsin and cytochalasin B were 0 of 7.

Cryopreservation of equine embryos less than 0.3 mm resulted in rates of embryonic vesicle formation similar to that of noncryopreserved embryos and to the previously published data. Lascombes and Pashen in Argentina (2000) reported a 56% pregnancy rate for transfer of small frozen-thawed equine embryos. After thawing, culture of embryos less than 0.3 mm did not affect their ability for future embryonic development. The results with equine embryos 0.3 to 1.1 mm demonstrated that large embryos can be successfully cryopreserved but at a lower rate of success than non-frozen controls or embryos less than 0.3 mm.

In summary, it is obvious from this recent study and from previous experiments, that small equine embryos can be frozen and thawed and a pregnancy rate greater than 50% can be obtained upon transfer. This pregnancy rate is similar to that obtained in cattle. Unfortunately, obtaining a small embryo for freezing requires that the mare be palpated several times per day and the time of ovulation be determined accurately. It is my opinion that once the breeder

recognizes the tremendous advantages of frozen embryos, the regulations by breed associations may change. It is my hope that, in the next several years, I will be able to report to the International Embryo Transfer Society that several hundred or even several thousands of equine embryos were frozen and exported out of and into the United States. It also may be feasible in



New Embryo Freezing Service Available

Custom freezing of equine embryos is now available at many SBS Affiliate Laboratory locations.

For further information please contact SBS at 877-658-3328

the next several years to pick up a catalog and order frozen embryos much like one would order frozen semen.

Post-Thaw



2002 colt by Kid Clu (Quarter Horse)

Conceived via Frozen Semen & Embryo Transfer performed by Peterson & Smith Equine Reproduction Center.

FROZEN SEMEN MYTHS

THE BREEDING MANAGERS FORUM

Myth #1

Breeding mares with frozen semen requires extensive "round the clock" veterinary examinations to achieve acceptable pregnancy rates.

This is one of the most common misconceptions about the use of frozen semen. It is primarily a result of how frozen semen has been marketed over the years. Frozen semen sold "by the dose" with no guarantee has been prevalent in the Warmblood Sporthorse industry since the early 1980's. Mare owners would typically purchase 2 or 3 doses of expensive frozen semen with no guarantees and take it to their veterinarian to breed their mare. Knowing that the supply of semen was very limited and very expensive, the veterinarian tried to manage the mare so that only one dose of semen was used per heat cycle.

Studies show that pregnancy rates are highest for frozen semen when mares are inseminated in the period of 12 hours before to 6 hours after ovulation. Although many fertility studies report very acceptable pregnancy rates for mares examined and inseminated only once daily during estrus up to the time of ovulation, it is quite clear that post-ovulation inseminations must be performed within 6 to 8 hours of ovulation. Since accurately predicting ovulation within 12 hours is very difficult, it is logical that a practitioner with only a single dose available would examine mares at 6 to 8 hour intervals in the periovulatory period, wait until ovulation is detected and inseminate a single dose at that time. There is also in vitro evidence that sperm from some stallions that have been frozen and thawed may have a reduced ability to bind to the mare's oviductal epithelium, which could reduce the lifespan of those sperm in the mare.

Recently, SBS developed & tested a simple and effective protocol for managing mares that are being inseminated with frozen

semen. The new protocol involves a single daily examination until a 35 mm preovulatory follicle is detected, administration of an ovulation inducing agent (hCG or Ovuplant™), and insemination with two doses of semen; one each at 24 and 40 hours after administering the ovulating agent. Use of this protocol insures that viable sperm are available for fertilization in the mare's reproductive tract during the time of 12 hours before to 6 hours after ovulation for mares ovulating 18 to 52 hours after administration of hCG or Ovuplant™.

Data from studies in Italy and Colorado as well as evidence from our own commercial

Mare owners can maximize results with frozen semen and minimize mare management costs by purchasing frozen semen from stallion owners willing to provide at least 2 doses per cycle.

distribution program indicate that similar pregnancy rates are achieved for mares bred using this protocol and those bred with a single dose of semen within 6 hours of ovulation. Of course, this protocol requires that two doses per cycle are available to the practitioner. SBS encourages stallion owners to provide sufficient doses per cycle to utilize this protocol. Mare owners can maximize results with frozen semen and minimize mare management costs by purchasing frozen semen from stallion owners willing to provide at least 2 doses per cycle.

Myth # 2

Frozen semen is more expensive to use than cooled transported semen.

In fact, the total cost for frozen semen to both mare & stallion owner is very similar.

Costs for the stallion owner are primarily for semen production. Cooled semen production requires the building, equipping, and staffing of a collection and processing

Stallion owners marketing frozen semen often are faced with resistance from mare owners or veterinarians who are biased against using frozen semen. These biases are usually the result of a previous bad experience using frozen semen or myths and misunderstandings that have been propagated over the years. This article will address those concerns and dispel some myths that may prevent mare owners from taking advantage of current frozen semen technology and stallion owners from maximizing their horse's marketability. The following six issues are frequently misunderstood by breeders and veterinarians:

- 1 Breeding mares with frozen semen requires extensive "round the clock" veterinary examinations to achieve acceptable pregnancy rates.
- 2 Frozen semen is more expensive to use than cooled transported semen.
- 3 Many mares have allergic reactions to frozen semen extenders.
- 4 Frozen semen fertility is much lower than cooled semen fertility.
- 5 Thawing & handling frozen semen is technically very difficult & therefore requires a veterinarian with a lot of previous experience using frozen semen.
- 6 If semen from a particular stallion doesn't cool well then it will definitely not freeze well.

In this issue of Foundations we will address the first two topics on the list and take up the remaining four in the next issue.

CONTINUED ON PAGE 4

THE BREEDING MANAGERS FORUM

Frozen Semen Myths

continued from page 3

facility or contracting with a veterinarian or collection facility to provide the necessary services on an as-needed basis. Outside facilities usually charge \$150-250 to collect and process cooled semen. Since the useful life of cooled semen is 24-48 hours and most collections are for only one or two mares, the cost to the stallion owner can easily exceed \$75-100 per dose. Moreover, if the mares do not ovulate as predicted, a second collection for the same heat cycle may be required. Add to this the labor costs to trailer the stallion to a collection facility and the administrative costs to coordinate cooled semen requests, the overall semen production cost per mare bred can easily exceed \$250. Depending on the number of sperm produced by any given stallion, frozen semen costs a total of \$40-80 per dose (including all labor and board at the collection facility). Typically, 2-3 doses are shipped per heat cycle, so the production costs per mare bred for frozen semen are similar to or even lower than those for cooled semen.

Veterinary costs for mare management and insemination are comparable for cooled and frozen semen if there is more than one dose per cycle available and the protocol described in Myth #1 is utilized.

Mare owners are typically responsible for shipping/handling charges for cooled or frozen semen. These charges are higher for frozen semen than for cooled semen, however the added benefits of using frozen semen outweigh the increased costs. With frozen semen, the shipment can be scheduled well in advance of the anticipated day of breeding, which eliminates concerns about last minute scheduling, shipment delays, or stallion availability when the mare is ready to be inseminated. Moreover, a single shipment of frozen semen can contain enough doses to inseminate a single mare through multiple cycles or multiple mares at a single location.

The Winter edition of Foundations will contain more Frozen Semen Myths. Can't wait until then? Give us a call or visit our website to get the complete article.

www.selectbreeders.com

U.S. 877-658-3328

Europe 39 0372 65224

Australia 61 3 58 299 566

Tanquery Gin 1975 - 2001



Tanquery Gin was euthanized due to health reasons on March 26, 2001. Dr. Glenn Blodgett of the 6666 Ranch in Guthrie, TX had the foresight to have Select Breeders Southwest, Inc. freeze semen from this stallion.

During his lifetime Tanquery Gin had excelled in the arena and as a sire. He ranked No. 29 on the all-time list of leading cutting horse sires at the end of 1999. Tanquery Gin has produced 120 performers with earnings of over \$2 million.

The filly shown here was conceived with frozen semen on May 23, 2001, two months after the stallion's death. Two more foals are to be born this year. Through the use of frozen semen Tanquery Gin's legacy will live on.

AQHA DROPS RESTRICTIONS ON FROZEN SEMEN USE

During the 2002 AQHA convention in New Orleans the restriction that limited the use of frozen semen from a deceased or gelded stallion was dropped. The rule change was announced in the May 2002 issue of the Quarter Horse Journal. Now the use of frozen semen from an American Quarter Horse stallion can be used indefinitely.

SBS Helping to Save a Rare Donkey Breed

by. Paul Loomis

At Select Breeders we have worked with all breeds of horses and I often tell people that our semen bank contains "ponies to drafts and everything in between." But recently we had the pleasure of working with an extremely rare equine indeed. Saadi du Bourg is a 17 year old Poitou donkey that, along with his jump jenny "Sara" spent a month at SBS-Maryland for semen collection and freezing. Saadi soon became quite a celebrity around here with his long curly coat, giant ears and wonderful temperament. While Saadi and Sara's behavior in the breeding shed was a bit different than we are used to, the collection process was very simple and Saadi's semen quality was quite good. During the month he was here we were able to bank more than 100 doses of excellent quality semen, all of which is qualified for export to the European Union. The donkey sperm were preserved very well using our standard horse extenders and protocols and we look forward to the results of upcoming inseminations both

here in the United States and in Europe.

In another effort aimed at saving this rare breed, Dr. Angus McKinnon of the Goulburn Valley Equine Hospital in Australia (page 6) transferred an embryo from a Poitou jenny into a horse mare resulting in the birth this year of a healthy Poitou foal



Saadi du Bourg

(pictured here.) This is the first time an endangered equid species has been successfully carried by a surrogate and has many implications for the breeding of other rare species.



The Hamilton Rare Breeds Foundation

The Hamilton Rare Breeds Foundation, formed for the conservation of the Poitou donkey and other breeds of livestock, was founded in 1998. The Poitou donkey, a French breed, is in very dangerous straits as only about 250 pure donkeys remain.

For more information visit selectbreeders.com or contact The Hamilton Rare Breeds Foundation directly by writing Debbie Hamilton or Pat Hastings at P.O. Box 282, Hartland, VT 05048, or calling (802) 436-1376.

3RD ANNUAL TEXAS BREEDERS FORUM

The third annual Texas Breeders Forum will convene August 3, 2002. The beautiful, newly expanded Spirit of the West Guest Ranch and Executive Retreat will serve as the venue for fun, food, and great insight into equine reproduction. This year we are delighted and honored to have Dr. Angus McKinnon from Australia as our international guest speaker. Dr. McKinnon is co-editor of the leading reference text **Equine Reproduction**. Dr. McKinnon's practice, Goulbourn Valley Equine Hospital, located in Victoria, Australia, has recently partnered with Select Breeders Services to form Select Breeders Service Australia.

The welcome reception & preregistration will take place Friday, August 2 from 7:30 - 9:30 pm at Spirit of the West. The reception will be a great opportunity to socialize with fellow participants, speakers and sponsors. There will be an opportunity to visit the commercial booths and speak to our sponsors about their products and services. A station will be available for those wanting to see how easy it can be to handle equine frozen semen.

The lecture series will be held from 10am - 9pm on Saturday. The day will be filled with a wealth of information on equine breeding and each participant will receive a valuable reference booklet containing the speaker's presentations. A Door Prize Drawing will be conducted during dinner.

In conjunction with the 2002 Texas Breeders Forum, Select Breeders Southwest will be holding a Hands-On Experience on Friday, August 2 from 8am until noon at our Aubrey, Texas facility. The hands-on seminar will allow everyone an opportunity to learn about semen collection, centrifugation, sperm morphology, semen analysis, handling and thawing frozen semen, protocols for breeding mares with frozen semen, processing cooled semen, plus much more.

To receive a flyer containing a registration form please contact:

Select Breeders Southwest
940-365-2467

Calendar

Equine reproduction symposiums, Select Breeders Sponsored and Hosted Events.

Coming this Fall! Management Strategies with Cooled and Frozen Semen



Co-Hosted by Select Breeders Services and Intervet.

These seminars with wet lab are for veterinarians. Topics covered will include: collection, evaluation and packaging of cooled semen, factors affecting fertility of cooled & frozen semen, advantages & disadvantages of frozen semen, semen storage & handling, international transport, factors affecting pregnancy rates of frozen semen, mare management and breeding strategies for cooled & frozen semen.

Seminars will be held throughout the country this fall. Look for more details coming on our website or call our main office 877-658-3328.

july 21-26

Eighth International Symposium on Equine Reproduction

Colorado State University
Fort Collins, Colorado



A forum for practitioners and scientists from around the world gather to present the latest information on equine reproduction. Research results will be presented in the following sessions: stallion reproduction, non-pregnant mare, pregnant mare, perinatal and gamete biology. Workshops will be held on some of the most pressing areas of equine reproduction. Proceedings will be published in Theriogenology.

august 3



3rd Annual Texas Breeders Forum

Select Breeders Southwest, Inc.
at Spirit of the West Guest Ranch
Tioga, Texas

For more information read the article on this page or call Select Breeders Southwest, Inc. at 940-365-2467

august 8-10

Advanced Horse Breeding Management Short Course

Goulburn Valley Equine Hospital
Shepparton, Victoria, Australia

For course schedule and more information visit the website:

www.gvequine.com.au/Shortcourses.htm

september 11-15

Americana

Ausburg, Germany

Americana includes the 11th International European Western Riding Championships and the largest trade show for Western Riding equipment in Europe. SBSE will host a booth at the trade show and SBS Affiliate members will be on hand presenting seminars on equine reproduction. For more information about Americana visit the website:

www.americana-info.com

october 23-26

Bluegrass Equine Reproduction Symposium

Lexington, Kentucky

After the great interest & response generated from the last several equine conferences, Hagyard-Davidson-McGee Associates, PSC has decided to continue this annual event. The program will be organized in a similar fashion to the previous years, consisting of one day of laboratories (limit 40 veterinarians) held at the Hagyard-Davidson-McGee Medical Hospital, followed by two and a half days of lecture. The lectures will be held at the Embassy Suites and there will be about 250 veterinarians participating with world-renowned speakers. For information please contact Betsy Walker (859) 255-8741.

december 4-8

American Association of Equine Practitioners 48th Annual Convention

Orlando, Florida

Select Breeders will be an exhibitor at the Tradeshow.

THE SBS AFFILIATE LABORATORY NETWORK

Three new additions to the SBS Network!

Equine Services, Ruettehofstr. 35, D-79713 Bad Saeckingen, GERMANY
(49) 0 170 549 1127, www.equine-services.de

Equine Services is located in the beautiful Black Forest region of southern Germany, one hour northwest of Zurich and thirty minutes northeast of Bale. Working in cooperation with five veterinarians from Partners Vet Clinic, Equine Services offers a full range of stallion and mare reproduction services. Mare services include mare management for breeding with fresh, cooled or frozen semen.

Mare owners can breed to stallions located in other regions and countries via shipped semen or choose a stallion from our breeding station. Equine Services also offers mare owners foaling assistance. Stallion breeding services are designed to allow owners to use their stallion's semen in a fresh, cooled, or frozen semen breeding program. Stallion services include:

training to the phantom, semen collection & evaluation, computerized analysis of sperm motility & processing for cooled shipment. Equine semen freezing, storage and distribution services are offered as part of the Select Breeders Services Network.

For more information please contact Nicole Oberstein at Equine Services.



2002 foals conceived through frozen semen & embryo transfer.
Clinic: Peterson & Smith Equine Reproduction Center
Sire: Kid Clu (Quarter Horse)
Peterson & Smith is an SBS Affiliated Laboratory

SBS Australia

in partnership with:

Goulburn Valley Equine Hospital

905 Goulburn Valley Hwy
Congupna, Victoria 3633,
AUSTRALIA

(61) 03 58 299 566, gvrepro@cni.com.au
www.gvequine.com.au



Goulburn Valley Equine Hospital was built by Drs. Jim Vasey & Angus McKinnon on an 85 acre irrigated farm in 1988 and is situated just north of Shepparton. The hospital is in a unique position in central Victoria & routinely attracts cases from all around Victoria as

well as other parts of Australia & New Zealand. Currently staffed by 9 veterinarians, supported by 10 full time and 3 part time staff, the hospital is a center for routine & specialist care as well as being a referral center for many veterinarians with difficult or unusual problems.

GVEH is divided into different areas of specialization that include reproduction, lameness, ambulatory services, medicine & surgery. In 2001, over 900 surgeries were performed under general anesthesia and over 1400 horses were radiographed. Reproductive services offered include evaluation and treatment of sub-fertile stallions and broodmares, AI of fresh cooled & frozen semen, embryo transfer, intracytoplasmic sperm injection (ICSI), semen

evaluation and, of course, semen freezing for domestic and international distribution. The hospital also has facilities for monitoring high-risk pregnancies and for performing reproductive surgeries. In all, the practice services around 1800 broodmares for routine work. In addition, frozen semen is held from over 100 stallions and over 150 embryo transfers were performed in 2001/2002. Of particular note are the clinic's efforts in research. Maintaining a research/recipient herd of 150 mares the hospital did all of the original work on Ovuplant and produced the world's first foal (and second) from ICSI using eggs from a live mare. Client education rounds out the impressive resume of this hospital. The clinic presents a highly popular Advance Horse Breeding Management Short Course yearly.

Hagyard-Davidson-McGee Associates, PSC

4250 Iron Works Pike
Lexington, Kentucky 40511
(859)255-8741
www.hagyard.com

For more than 120 years the names of Drs. Charles E. Hagyard, Arthur H. Davidson, and William R. McGee have been synonymous throughout the international equine world with excellence in veterinary care. Today Hagyard-Davidson-McGee Associates is a premier medical and surgical establishment respected by referring veterinarians & clients. As technology and techniques have advanced through the years, HDM has kept pace by assembling a staff of 40 professional doctors second to none.

The fertility clinic at H-D-M is a full service reproductive facility headed by Dr. John Steiner, Dipl. ACT. Mare services include breeding soundness evaluations, endocrine evaluation and monitoring, breeding management, pregnancy management - specializing in problem pregnancies, embryo transfer, videoendoscopy of reproductive tract and Gamete Intrafallopian Transfer (GIFT). Stallion services include breeding soundness and pre-purchase exams, endocrine testing, genetic testing, semen collection and transport, computer assisted semen analysis (CASA) & semen freezing, storage and distribution.

The Internal Medicine division of H-D-M has five equine internists on staff, all Board-certified

Diplomates of the American College of Veterinary Internal Medicine. Six veterinarians performing a wide range of both soft tissue and orthopedic procedures staff the Surgery facility. The clinic houses two modern operating rooms adjacent to four padded recovery stalls. Other ancillary diagnostic tools available include radiography, nuclear imaging, ultrasonography, videoendoscopy and laparoscopy. The 27 ambulatory veterinarians at H-D-M make calls to both commercial farms and pleasure horse owners in and around Lexington. A full service laboratory offers biochemistry, cytology, fluid analysis, hematology, hormonal assay, microbiology, parasitology & serology testing.



Hagyard-Davidson-McGee Associates is conveniently located in Lexington, Kentucky on Iron Works Pike, directly across the road from the Kentucky State Horse Park.

International Success

The foals pictured below are some of the many foals born in 2001 and 2002 from successful shipments of frozen semen between Select Breeders Service Affiliated Laboratories in the United States and Europe



Richard Malmgren

Delphinium - foal of 2001
by Del Piero (Hannoverian) out of Lantana

SBS Freezing Laboratory: Studio Veterinario Cristella
Semen Imported to the US by: SBS - Maryland
Breeder: Hilltop Farm, Inc.



Unnamed - foal of 2002
by Reminic (Quarter Horse)
out of Sugar Jodie Doll

SBS Freezing Laboratory:
Select Breeders Southwest
SBS Importing Lab:
Studio Veterinario Cristella (Italy)
Breeder: Ferrarini Q.H.



Unnamed - foal of 2002
by Smart Chic O'Lena (QH)
out of Sr Freckles Lynx

SBS Freezing Laboratory:
Select Breeders Southwest
SBS Importing Lab:
Studio Veterinario Cristella (Italy)
Breeder: Ferrarini Q.H.



Richard Malmgren

Unnamed - foal of 2002
by Regazzoni (Hannoverian)
out of Primavera

SBS Freezing Laboratory:
Studio Veterinario Cristella
SBS Importing Lab and
Embryo Transfer Lab:
SBS - Maryland
Breeder: Hilltop Farm, Inc.

SELECT BREEDERS AUSTRALIA

continued from page 1

ers are ensured of superior quality control and attention to detail at each step along the way. Mare owners and veterinarians also benefit from the knowledge that frozen semen processed by any SBS Affiliated Laboratory and imported for distribution within the network will meet SBS strict quality standards. This 'down under' connection is already working for many Warmblood and Quarter Horse breeders. Recently SBS Maryland shipped 180 doses of Warmblood semen and Select Breeders Southwest shipped 154 doses of semen from eight different Quarter Horse stallions to Australia. If you are looking to expand your stallion's market, contact any SBS Affiliate Laboratory for more information about semen freezing for export to Australia and other countries.

SBS Affiliated Laboratories

Select Breeders Service, Inc.

Paul R. Loomis
Colora, Maryland
(410) 658-3328
SELBREED@aol.com

Select Breeders Southwest, Inc.

Whit Byers
Aubrey, Texas
(940) 365-2467
sbsw1@airmail.net

Peterson & Smith Equine Reproduction Center

Dr. Phil Matthews
Summerfield, Florida
(352) 307-3001

Hagyard-Davidson-McGee Associates

Dr. John V. Steiner DVM, Dip. ACT
Lexington, Kentucky
(859) 255-8741

Advanced Equine Reproduction

Dr. Nancy Cook
Solvang, California
(805) 688-5080
nlcook4aer@aol.com

Gumz Farms, LLC

Amy Gumz
North Judson, Indiana
(219) 896-3355
gumzfarms@skyyenet.net

Pioneer Equine Hospital

Dr. Duncan Peters
Oakdale, California
(209) 847-5951
dvmmba@pioneerequine.com

Studio Veterinario Cristella

Dr. Sandro Barbacini
Cremona, ITALY
(39) 0372 65101
svc@cristella.com

SBS Northgermany

Dr. Kirsten Schwenzer
Bakum Lüsche GERMANY
(49) 05438/9585-60
kontakt@sbs-northgermany.de

Equine Services

Nicole Oberstein
Bad Saeckingen GERMANY
(49) 0 170 549 1127
info@equine-services.de

SBS Australia

in partnership with
Goulburn Valley Equine Hospital
Dr. Angus McKinnon
Shepparton, Victoria
AUSTRALIA
gvrepro@cnl.com.au
(61) 03 58 299 566